Inside Data Management

Inside Market Data Inside Reference Data

Dealmakers Give the Lowdown On the State of Play in M&A

QUANTS STRUGGLE TO DERIVE VALUE FROM ALT DATA

More Exchanges Eye 'Flash Boys' Speed Bumps

'GREEN' SCREENS

Industry Seeks ESG Standards to Support Demand for Responsible Investments

Editor Max Bowie
Tel: +1 646 490 3966
max.bowie@incisivemedia.com
European Reporter Joanne Faulkner
Tel: +44 (0) 20 7316 9338
joanne.faulkner@incisivemedia.com
Asia Staff Reporter Wei-Shen Wong
Tel: +852 3411 4758
wei-shen.wong@incisivemedia.com

Publisher Katie Palisoul
Tel: +44 (0)20 7316 9782
katie.palisoul@incisivemedia.com
Global Commercial Director Colin Minnihan
Tel: +1 646 755 7253
colin.minnihan@incisivemedia.com
Business Development Executive Michael Balzano
Tel: +1 646 755 7255
michael.balzano@incisivemedia.com
Business Development Executive Christopher Fiume
Tel: +1 646 736 1887
christopher.fiume@incisivemedia.com
Business Development Executive Tom Riley
Tel: +44 (0) 20 7316 9780
tom.riley@incisivemedia.com

Group Publishing Director Lee Hartt
Head of Editorial Operations Elina Patler
Commercial Editorial Manager Stuart Willes

Senior Marketing Executive Louise Sheppey
Tel: +44 (0) 20 7316 9476
louise.sheppey@incisivemedia.com

Incisive Media
55 Broad Street
22nd Floor
New York, NY 10004, USA
Tel: +1 646 736 1888

Incisive Media
Haymarket House, 28–29 Haymarket
London SW1Y 4RX, United Kingdom
Tel: +44 (0)20 7316 9000

Incisive Media
14th Floor (Unit 1401-3), Devon House, Taikoo Place
979 King's Road Quarry Bay, Hong Kong
Tel: +852 3411 4888

Subscription Sales
UK: Claudio de Oliveira
Tel: +44 (0)20 7316 9271
claudio.deoliveira@incisivemedia.com
US: Kemuel Ramos
Tel: +1 646 736 1839
kemuel.ramos@incisivemedia.com

Incisive Media Customer Services
E-mail: customerservices@incisivemedia.com
Tel (UK): +44 (0)1858 438800
Tel (US): +1 212 776 8075
Tel (Asia): +852 3411 4828

Inside Data Management (ISSN 2514-0574) is published monthly (12 times a year) by Incisive Media. Printed in the UK by DG3.

Don't Put All ESGs in One Basket

We love to hate millennials: their birds-nest beards, skinny jeans, and snobby cocktails. Yet the new generation is being credited with driving change in the niche world of ESG (environmental, social and governance) data by choosing socially responsible investment vehicles. The resulting ESG explosion is great news for ESG data providers and investors as data becomes more plentiful, more timely, and better quality. But, as Joanne Faulkner discovers, it's still often unstructured and nebulous, and as it becomes more prominent, there are calls for standards around ESG to protect investors.

ESG is one factor to consider in investment decisions, as is the growing alternative data space, which we revisit this month—this time from the point of view of quantitative traders and investment managers—courtesy of *Risk* magazine's Faye Kilburn. Despite predictions of massive increases in spend on alternative data, many efforts to date have proved costly failures due to the complexity of not just handling the unstructured datasets, but being able to eke out consistent returns. Ironically, that's exactly how some quants like it—or at least, so they profess: the harder and more expensive it is to harness this data, the less likely their competitors will be to attempt it, and the dataset will continue to deliver profits for longer, instead of everyone piling in at once, eliminating any advantage.

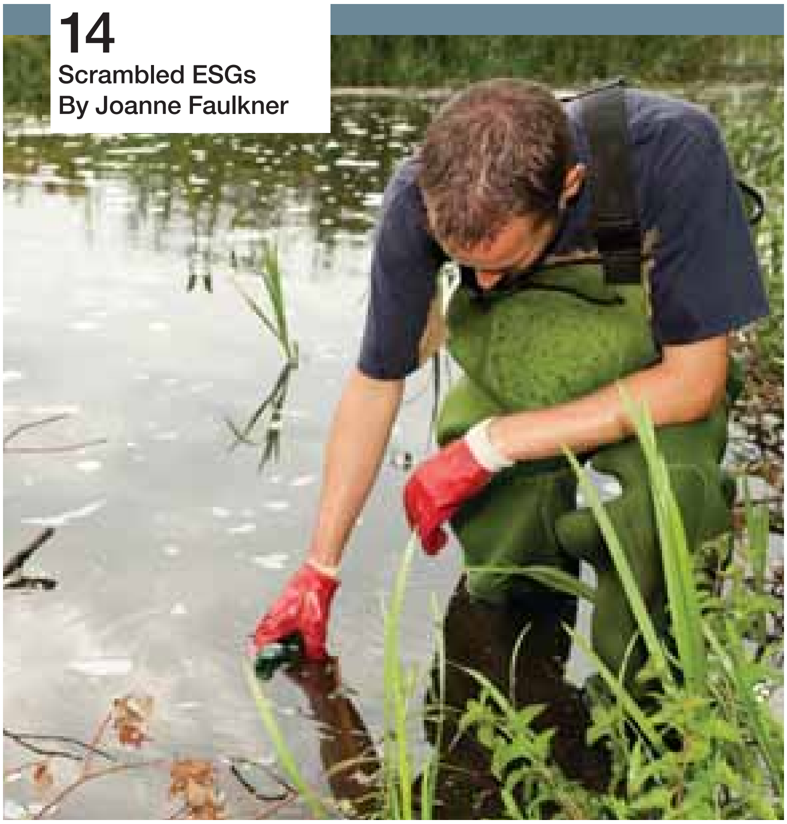
The impact of systematic investors' activity on markets is also evident elsewhere in this issue of *Inside Data Management*: Quantitative traders at Morgan Stanley spotted strange modal activity in data from the Tokyo Stock Exchange, which suggests high-frequency trading activity is actually changing market microstructures. And in a separate article, Dan DeFrancesco analyzes how three US stock exchanges plan to introduce artificial delays to their data and order-routing infrastructures in response to IEX's exchange approval. IEX uses a "magic shoebox" of spooled fiber to introduce a 350-microsecond delay to eliminate latency disparities between different market participants. By implementing similar offerings, NYSE, Nasdaq and the Chicago Stock Exchange hope to negate IEX's main differentiating factor.

These trading innovations could not have been possible without significant automation across the trading infrastructure that connects firms and markets. But some other areas within financial firms struggle with automation issues. Focusing on changes coming out of the Monetary Authority of Singapore, Wei-Shen Wong reports on how the increasing regulatory burden has the potential to drive greater levels of automation around these functions, and how firms may flounder if they attempt to handle new-world regulatory requirements using old-school techniques—a sentiment that could equally be applied to any business function across today's markets. ■

Max Bowie
Editor

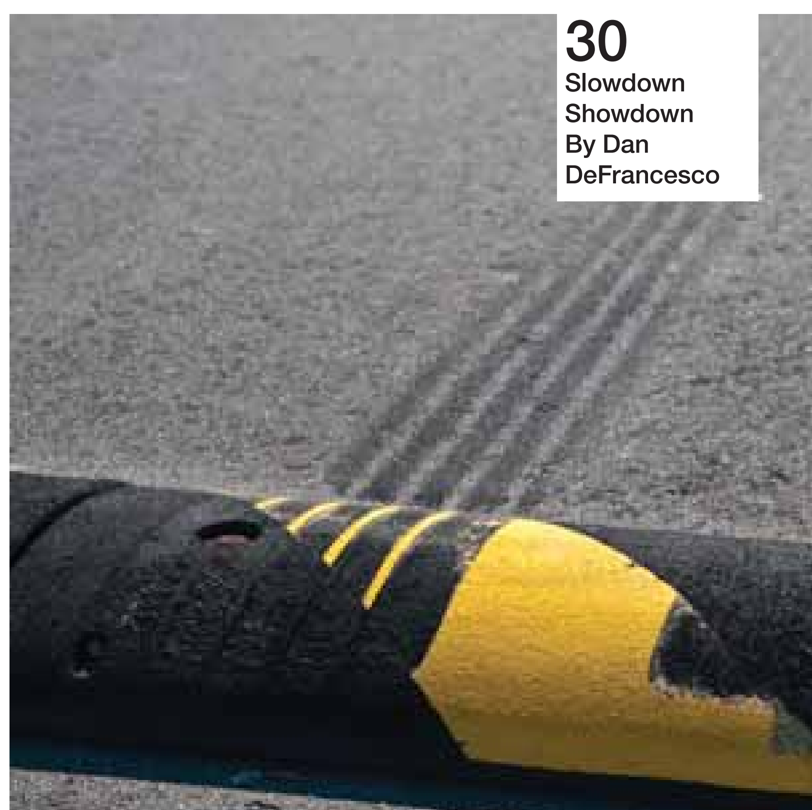
Inside Data Management
Inside Market Data Inside Reference Data

Contents



May 2017

26
Alternative Data's
Hard Labor
By Faye Kilburn



30
Slowdown
Showdown
By Dan
DeFrancesco

Moody's Buys Company Data Vendor BvD for €3bn

US credit rating agency Moody's has agreed to acquire Bureau van Dijk Electronic Publishing (BvD), a Dutch provider of company information, for €3 billion ($3.27 billion) from Swedish private equity fund EQT as it looks to extend its position as "a leader in risk data and analytical insight."

BvD aggregates, standardizes and distributes private company datasets on more than 220 million companies.

The vendor will become part of Moody's Research, Data & Analytics unit. Following the integration, Moody's officials say the vendor expects to generate about $45 million in annual revenue and expense synergies from the deal by 2019, rising to $80 million by 2021. For example, as part of an "operational efficiency" strategy following the deal, Moody's will co-locate staff, eliminate overlapping data acquisition costs, and streamline product development.

In a conference call after the announcement of the deal, Moody's president and chief executive Raymond McDaniel called BvD a "very complementary business" that will help further Moody's role as "a global provider of credit risk measures and analytical insight," while also "positioning Moody's more deeply into the financial information value chain."

> "MIS has been moving more into the small and medium-size enterprise sector… [to cover] companies that are at the heart of the information which is collected and curated by BvD"
> **Mark Almedia, Moody's Analytics**

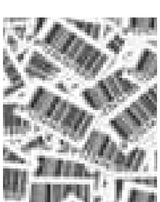
As BvD sells its products almost entirely via a subscription model, the acquisition also offers "reliable cash flows," McDaniel said, adding that the acquisition also provides significant opportunities for Moody's Analytics to offer complementary products, create new risk solutions, and extend its reach to new and evolving market segments.

For example, data from BvD's platform can be integrated into Moody's loan origination, risk management and regulatory reporting analytics. Moody's also plans to expand BvD's footprint into the US and Asia, and extend Moody's Analytics' customer base beyond financial institutions and insurance. Moody's Analytics will look to package BvD's data subscriptions into the existing subscriptions for its analytical software and models.

When asked during the conference call about the "portfolio rationale" of the deal, Moody's Analytics president Mark Almedia says the acquisition "does not reflect any lack of enthusiasm about the ratings business." In fact, added McDaniel, BvD is a "resource that will be available to Moody's Investors Service. MIS has been moving more into the small and medium-size enterprise sector… [to cover] companies that are at the heart of the information which is collected and curated by BvD."

The acquisition is subject to regulatory approval in the European Union and is expected to close late in Q3 2017.

Bloomberg Gets GLEIF LOU Nod



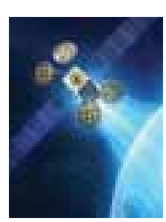
MiFID II is spurring the use of LEIs

The Global Legal Entity Identifier Foundation has approved Bloomberg's application to become a Local Operating Unit (LOU) of the Global LEI System, allowing it to issue and maintain Legal Entity Identifier codes.

Companies can request and register for an LEI from Bloomberg via the vendor's LEI website, lei.bloomberg.com, via its Bloomberg Entity Exchange secure data and document-sharing platform, and via Bloomberg terminals, using the command LEI <GO>.

"The use cases for the LEI are coming into focus because of MiFID II's January 2018 implementation deadline. MiFID II has a clear directive: 'No LEI, No trade.' US institutions that want to continue doing business with trading counterparties in Europe will need to obtain an LEI in order to comply with MiFID II and other regulatory mandates in Europe and around the world. We look forward to helping Bloomberg clients and other organizations adhere to these requirements by providing a seamless and cost-effective way for them to request and maintain their LEIs," says Steve Meizanis, head of entity content management at Bloomberg, in a statement.

Orbital Insight Raises $50m for Image Analysis Space Race



Satellite images can help track trends

Mountain View, Calif.-based satellite and drone-captured image analysis provider Orbital Insight has raised $50 million in Series C funding to expand its product portfolio, grow its strategic partnerships worldwide, and establish or increase its sales presence in key international markets. The funding round was led by existing investor Sequoia Capital, and included new investors Envision Ventures, Balyasny Asset Management, Geodesic Capital, Itochu Corp., and Intellectus Partners. Officials say that as the commercial space sector takes off, improvements in image frequency and resolution are enabling companies like Orbital Insight to create new tools for tracking socio-economic trends.

"We've only just begun to uncover a handful of signals, but we've already seen the impact they can have on financial, energy and insurance markets, as well as society as a while. We're looking forward to having an even greater presence as we scale alongside the industry," says Orbital Insight founder and chief executive James Crawford.

Oppenheimer Expands GoldenSource Deal to Hosted Services for KYC, AML

New York-based investment bank and fund manager Oppenheimer & Co has begun using hosted data management services from enterprise data management platform provider GoldenSource in conjunction with its existing in-house deployed installation of the vendor's EDM platform. Officials say the new hosted services will power Oppenheimer's regulatory, risk management and anti-crime initiatives by linking client data with related Know Your Customer and Anti-Money Laundering documents.

xCelor, Ciara Ally for High-Frequency On-Server Feed Handling, Book Building

Chicago-based low-latency switching technology vendor xCelor has integrated its FPGA-based market feed handler and book-building PCIe adapters into Montreal-based technology vendor Ciara's Orion high-frequency trading servers to reduce line-rate processing. The integration provides a single, low-latency solution that combines feed handling, book building and exchange connectivity directly on a high-performance server.

ICE Partners with NPL for Atomic Timestamping

Leon Lobo, National Physical Laboratory

Intercontinental Exchange (ICE) has linked up with UK timing standards body the National Physical Laboratory (NPL)—which maintains the UK's atomic clocks and is responsible for the dissemination of time signals across the country—in a partnership that will see it stamp thousands of trades using the NPLTime service.

Customers in ICE's datacenter will receive precise time—accurate to one second every 158 million years—via a direct fiber connection to NPL. The system is directly traceable to Coordinated Universal Time (UTC)—the global reference against which venues must synchronize their server clocks—and is independent of Global Positioning System timing.

Traceability requirements in MiFID II's Regulatory Technical Standard 25, which come into force in January 2018, will require financial organizations to timestamp trading events to an accuracy of 100 microseconds. To achieve this, clocks on the computers that timestamp trades must be synchronized to ensure standardization.

"In today's markets, timing is everything. High-frequency trading represents around 30 percent of UK trades and 50 percent in the US—precise timing offers competitive advantage," says Leon Lobo, strategic business development manager at NPL, in a statement.

Thomson Reuters Bows API for Desktop Apps to Access Eikon Data

Thomson Reuters has released a Side-by-Side Integration API in its developer portal that allows users to seamlessly merge content from its Eikon workstation with other financial desktop applications, to increase the efficiency of market professionals who use multiple tools. Officials say the API enables users to connect news, charts and real-time applications in Eikon to desktop applications with a single mouse-click, rather than having to spend time re-entering information.

The first vendor to integrate the API is New York-based OpenFin, which provides a common operating layer for desktop applications, allowing them to share data. The API will enable OpenFin to connect "hundreds" of applications to Eikon's data, says OpenFin chief executive Mazy Dar. "It's vital in the financial industry to encourage interoperability, especially so on the desktop. Better connectivity across apps and services… makes for time savings, productivity improvements, and corresponding financial gains."

MarketAxess Taps MDX Tech for Data Distribution, Axes

New York-based fixed income trading platform MarketAxess is rolling out the MDXT Connect data distribution platform from London-based MDX Technology to provide firms participating in its Open Trading all-to-all marketplace with the ability to receive live data and submit "axes" (indications of interest) via a Microsoft Excel spreadsheet-based interface.

The solution recently went live after going through a proof-of-concept last year, and around two dozen MarketAxess clients are now using it, officials say. The first capability deployed was data distribution to clients—including some data from its Trax post-trade services and data business—followed by the ability to contribute axes. A third capability—set to go live this quarter—will allow users to respond to trading opportunities directly from Excel.

Richard Schiffman, MarketAxess

"Increasingly our most active users interact with us via APIs, generally using the FIX Protocol into their order management systems and for data consumption. But not all firms are ready to connect via an API, so MDX provides a simple solution that allows us to offer a spreadsheet for connectivity into our system that gives users the ability to post axes into Open Trading, update them in real time, and consume the 15,000 to 20,000 live inquiries per day coming into Open Trading," says Richard Schiffman, head of Open Trading at MarketAxess.

The MDX solution will offer the same level of access that users would get by using an API or MarketAxess' workstation, Schiffman says, but saves the time required to write an API, and offers a user-friendly format that allows traders to manipulate and analyze data without the need to involve IT resources.

"Top-tier dealers will have written their own interfaces… but MarketAxess was interested in providing an Excel solution to other tiers and the buy side," says MDX chief executive Paul Watmough.

Money.Net Adds Dataminr, Upgrades MT Newswires

Market data terminal provider Money.Net has integrated alerts from social media monitoring and analysis provider Dataminr into its workstation to provide the fastest updates on potential market-moving news, and has upgraded the news service it distributes from MT Newswires to provide more international and earnings-related news.

The Dataminr content—which went live on Money.Net at no additional cost to existing subscribers on May 15, after a soft-launch period—will be visible as headlines within Money.Net's news feed, with links to external content.

"We consider 'news' to be any text that moves markets—tweets, long-form articles, other social media, and newswires. We deliver all that through our news feeds," says Money.Net chief executive Morgan Downey. "There is a huge amount of market-moving information that appears on social media first, and the traditional newswires are late on most of this… because they pre-follow individuals [such as important industry figures and market mavens]—but you can't pre-follow a kid in a shopping mall who witnesses some market-moving event. Dataminr does the ultra-heavy lifting of sorting through billions of tweets to find that information."


Morgan Downey, Money.Net

Downey says the vendor is the first terminal provider to carry Dataminr content on its platform, and will also use the content as an input to its own artificial intelligence-generated news items.

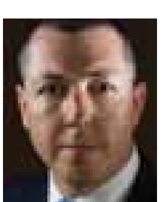
"Our companies have been aware of each other for several years. I've been a customer of Dataminr for many years, and I use it myself. But we also saw that some of our customers, such as smart hedge funds, were using Dataminr on their desktops… because other terminal vendors were not giving them that social media information in a friendly manner," he says.

Money.Net has also upgraded the existing service it offers clients from Bethesda, MD-based financial newswire MT Newswires. Money.Net has carried MT Newswires' Live Briefs Investor US news service since early 2016, but on May 8 upgraded to the newswire's Live Briefs Pro North America, which provides content targeted more at the institutional trading audience that Money.Net is aiming to attract for its terminals, and includes additional information, such as earnings news and Canadian coverage.

"Earnings was a huge part of the reason for upgrading. We lived with one level of MT Newswires, and we thought that was good. Then we tried the higher level… and the feedback from clients has been really good," Downey says, adding that he believes the partnership will help MT Newswires grow its business by being able to reach a wider audience. "For anyone who aligns with us… we will be the platform that gets them into our base of financial firms and hedge funds."

MT Newswires officials say implementing the upgrade to its Pro North America service took one day, and required a developer to add the additional categories of news to the existing feed it providers to Money.Net.

Opus Debuts Resolve KYC, Entity Data Management API


Kelvin Dickenson, Opus

Compliance and risk technology provider Opus has released a new Know Your Customer (KYC) tool, dubbed Resolve, which allows users to validate customer, counterparty and third-party data by simultaneously searching multiple databases to retrieve entity data from internal databases or Opus solutions, as well as from providers in Opus' data partner network. Officials say that clients need only start typing a company's name, Legal Entity Identifier or Central Index Key, and the Resolve API will instantly retrieve the relevant entity and its corresponding data attributes.

"Our clients will quickly find their KYC and onboarding processes improved, which will benefit both their client relationships and compliance," says Kelvin Dickenson, head of compliance and data solutions at Opus.

Thomson Reuters Adds S&P Transcripts Content

S&P Global Market Intelligence is to provide transcripts of public and private companies to clients of Thomson Reuters' desktop terminals and datafeeds, under an agreement between the two vendors.

S&P will provide transcripts and other data about corporate events—such as earnings conference calls, guidance and update calls, sales and trading calls, special calls, shareholder analyst days, and annual board meetings—in machine-readable format via its Event-Driven Alerts delivery service to Thomson Reuters. S&P has also increased its company coverage and added new tagging fields in transcripts to provide improved search options to help clients.

The company will also make final transcript documents and historical events data available via its Xpressfeed platform.

Trax Gets FCA ARM Nod, Awaits Test Details

Post-trade matching and data provider Trax has gained approval from the Financial Conduct Authority to start testing its Approved Reporting Mechanism (ARM) transaction reporting capabilities with the UK regulator's new Market Data Processor system (MDP) under the MiFID II regime.

Trax officials say this is the first step towards achieving full regulatory approval from the FCA for its ARM. Through Trax's connection to the FCA's MDP system—which is expected to be available by July—clients will be able to validate their MiFID II reports with the regulator ahead of the January 2018 implementation date.

The application window for proposed ARMs to gain FCA approval opened in January. While Trax operated as an ARM under MiFID I, "that doesn't mean that you automatically 'grandfather' across to the regimen for MiFID II," says Chris Smith, head of Trax. "You cannot be approved as an ARM under MiFID II until you've passed the testing. We won't get the authorization as an ARM for MiFID II until we've been through the technology testing, which will happen in the second half of this year, once the FCA test systems are ready."


Chris Smith, Trax

But Smith says it's unclear what the technology testing will involve. "We're waiting for a lot of details. We know all the technical standards, and the fields that are required for MiFID II for reporting…. We know all the fields that have to make up a transaction report… [and] we know what the ESMA [European Securities and Markets Authority] expectations are of a transaction report. So we're building our systems according to all of that," he says.

Smith says customers can send files to Trax's test system and receive responses based on its understanding so far of what the regulators' requirements will be. "With the MiFID I testing that we do today, we have connectivity to the FCA… and we're able to send files on behalf of our customers down into the test system, and the FCA test system today mimics production and tells us whether we've got things right or wrong. We then pass that feedback back to the customer. We expect something similar for MiFID II."

Trax has already connected and test-connected to the national competent authorities in France and Belgium, which share a platform. Smith says he expects the ARM space to be busy, at least initially, given how many market participants have said they will apply to be ARMs. But he recalls a similar scenario when the first iteration of MiFID for equities trade reporting was introduced in 2007. "You saw lots of firms saying they were going to do it, then everything sort of coalesced around the BOAT initiative, and then moved over to Bats. I suspect we'll see lots of firms making applications, and then… over time those will probably drop away."

OneMarketData Stretches OneTick for 'Elastic Analytics'


Leonid Frants, OneMarketData

New York-based tick database and complex event processing software vendor OneMarketData has launched OneTick Elastic Analytics, a cloud-based platform for scalable analytics and data as-a-service.

Elastic Analytics provides on-demand analytics for creating normalized and cleansed custom datasets from exchange-traded and over-the-counter instruments. The managed service platform can support back testing, algorithm development, transaction cost analysis, technical studies and charting.

OneMarketData says that by leveraging the cloud, OneTick Elastic Analytics can also support faster analytics, back-testing and client reporting, which can support business decisions, compute-heavy processes and development projects.

"Over the past several years, and particularly since we began providing hosted solutions, the demand among our customers for a public cloud offering has been tremendous," says OneMarketData founder and president Leonid Frants in a statement. "The rapid elasticity gives users an ability to scale massive computing power to their demands in a way that would simply be unimaginable a decade ago."

Capital Group Taps Bloomberg for Muni Evaluations


Varun Pawar, Bloomberg

Los Angeles-based asset manager Capital Group is to roll out Bloomberg's BVAL evaluated pricing service to benchmark and validate end-of-day values for municipal bond positions. Officials say Capital Group chose Bloomberg BVAL for its broad pricing coverage of almost a million municipal bonds each day, access to in-house evaluation teams, and transparency into the vendor's pricing models. Bloomberg creates the evaluated prices using a quantitative approach that first values actively traded bonds and applies that to derive relative value prices for comparable but less-liquid securities.

"We have made strategic investments in the quality and coverage of our evaluated pricing because we recognized early on the vital role valuations play in a firm's investment strategy and compliance process. BVAL uses rigorous and transparent pricing models that draw from a wealth of data sources. This helps our customers remain competitive in the market but also confident about meeting regulatory and investor demands," says Varun Pawar, global head of Bloomberg's evaluated pricing service, in a statement.

'Smart Data,' Regulation Drive Buy-Side Content Needs, But Cost is Main Concern

Joanne Faulkner reports on how financial firms expect to increase their consumption and use of market data while managing increasingly complex data, to meet regulatory demands and deliver a new edge.

The need for "smart data" and new analytical tools that deliver trading advantages where other sources of alpha have dried up, along with the reporting and storage requirements of new regulations are placing increased demands on firms' need to handle more datasets, according to speakers and attendees at a recent industry conference in Paris.

Richard Balarkas, Compliance Solutions Strategies

Smart data is having a transformational impact in areas where the "speed game" has reached its limits in terms of low latency either becoming too expensive or commoditized, said speakers on one panel. "We've played that out…. That next generation of alpha and risk management is going to come from our data infrastructures and the vast variety of what that means," said John Lowrey, global head of cash electronic execution at Citi.

But finding that next generation of alpha internally brings its own challenges. Ross Garon, managing director at Cubist Systematic Strategies, the systematic investment arm of asset manager Point 72, said that many of his firm's staff are devoted to "data driven innovation," but warned that there's no substitute for asking the right questions.

"You can build more and more technical tools to help you look at data, but first of all acquiring a disparate set of data is extremely costly in terms of time, and extremely costly in terms of money…. Acquiring that and then figuring what questions to ask is really where the innovation comes," Garon said. "While the barriers have dropped for how you process and look at data, and there's been a democratization of tools, there has been no democratization of the right kind of questions to ask—that's the heart of the matter."

In fact, he buy side is still ahead of its sell-side contemporaries, being more open to using alternative data, while the sell side still considers alternative data "very risk aggressive," said Kaylash Patel, director of EMEA commercial markets at Dataminr. "They don't want to put a head above the parapet to make a decision based on an alternative dataset when the cost of making that decision could potentially be so high.... They find it very difficult in certain cultures within the sell side to step into that world…On the buy side, alternative datasets… such as satellite data or footfall data are all being used to get a competitive edge."

Transparency Triggers

However, panelists agreed that the most significant driver of greater consumption among data for buy-side firms may be the wave of transparency regulations which require the storage of more detailed information—the most significant of which are MiFID II's best execution requirements, which instruct investment firms to "take all reasonable steps to obtain the best possible result in the execution of an order for a client."

At the same event, Roman Garcia, senior advisor to the director-general of competition at the European Commission, outlined the role of the EC's competition division in ensuring fair competition practices and conduct among market participants, as well as identifying market abuses. With respect to market data, he said this means making sure that data is accessible as set out under MiFID II—which says that data must be available on a "reasonable commercial basis"—adding that the EC is investigating concerns about the prices charged for data.

"We are looking in detail at making sure that the transparency spirit of implementation is respected," Garcia said. "There has been substantial work in the last year to improve transparency from the industry to the regulators.... But where we need to keep working is transparency vis-à-vis competitors, and it's in this area... specifically talking about the data markets, there are practices that need to be watched carefully… so that people can have access to high quality timely data," he added, citing unbundling, different datasets, and data access as "very important" areas that the regulator is watching closely.

Variable Fees

But attendees were more concerned about cost than accessibility and availability. "The data is there as long as you are prepared to pay for it. The most grueling aspect of trading in Europe compared to trading in the US is the seemingly inexplicable difference in pricing," said Richard Balarkas, consultant at Compliance Solutions Strategies, adding that while there is a competitive market for data providers, the underlying fees that those aggregators pass on from the exchanges are variable. "There are huge differences between exchanges over what they charge. Yes, there's a competitive market for the firms that then onward distribute that, but the exchange charges are still embedded… is that not a competition issue?"

Modal Patterns in Market Data Stump Morgan Stanley Quants

New research suggests that algorithmic traders are changing the market microstructure. Faye Kilburn reports on Morgan Stanley's discovery of unexplained patterns in the frequency of trading activity.

Data scientists at Morgan Stanley are scratching their heads after observing a mysterious modal pattern in market data, which they attribute to systematic trading activity.

When Morgan Stanley's electronic trading group studied the time interval between trades in Sony Corp. stock on the Tokyo Stock Exchange on Feb. 29, 2012, they expected to see a pattern of exponential decay, with bigger gaps between trades as the number of trades decreased.

Instead, they found a strange modal pattern. Lots of trades occurred within one or two milliseconds of each other, but there were hardly any trades that were two to three milliseconds apart. Equally, there were often four or five milliseconds between trades, but not five or six milliseconds.

Morgan Stanley's quants believe this modal pattern reflects the timing of various systematic and algorithmic traders operating in the market. The group is currently conducting research on whether the modes are a result of different systems, or a single one.

Market Microstructure

"These systems change from day to day, but these three modes are one of the constant things throughout time. For me, this is an indication of one of ways that algos actually induce changes in market microstructure," said Kerr Hatrick, executive director of Morgan Stanley's electronic trading group in Hong Kong, speaking at the Quantcon conference in New York on April 29, organized by crowd-sourced hedge fund Quantopian.

The bank was conducting research into the factors that impact market microstructure—such as transaction costs and quoting conventions—when it made the discovery. Systematic traders analyze market microstructure to ensure their algorithms are executing efficiently—for example, during periods of optimal liquidity.

> "These systems change from day to day, but these three modes are one of the constant things throughout time. For me, this is an indication of one of ways that algos actually induce changes in market microstructure."
> **Kerr Hatrick, Morgan Stanley'**

Quantitative asset managers say they are equally puzzled by the market data patterns highlighted by Hatrick.

Ernest Chan, head of quantitative investment management at QTS Capital Management in Canada, confirms that algorithmic traders alter market microstructures because so many of their strategies are specifically designed to exploit structural inefficiencies, but adds that he "can't think of any reason" for the groupings and timings between trades.

Brokers randomize their algorithms to minimize market impact and ensure their orders are not detected by predatory traders who may front-run them. However, Morgan Stanley's research suggests these algorithms may be less random than advertised.

"Brokers tell you that they randomize everything—the size of the trade, the timing of the trade—but it wouldn't surprise me that a lot of these algorithms actually are far more predictable than they would have you believe," says Paul Crowley, an independent consultant and the former head of quantitative strategies at Visium Asset Management, an $8 billion hedge fund that closed in 2016.

Feedback Loops

Typically, market microstructure changes are the result of new rules and regulations or technical changes implemented by trading venues. Morgan Stanley's electronic trading group believes more research is necessary to understand how today's network of trading algorithms interacts. For example, a "bottom-up" change may be taking place as networks of algorithms respond to each other and create feedback loops, Hatrick said. "We have to hope that our understanding and analysis of this network of interactions between algos proceeds at the same rate that algos themselves are evolving," he added.

The challenge facing researchers is multiplied by the fact that trading algorithms are constantly adapting in response to changes in the market microstructure and the specific execution needs of clients, who may want to execute in different ways at different times.

"When you figure out some of these patterns and how to exploit them, the people who are getting exploited realize it relatively quickly and change their code. Then you've got to go back and look for more data," Crowley says.

EBS to Enforce Ultra Participation Criteria from Mid-June

Firms wanting to benefit from the value of EBS' fastest datefeed will have to also contribute value by making markets for 40 percent of the time. Eva Szalay reports on the move and market participants' reactions.

Foreign exchange broker platform EBS BrokerTec is set to enforce the participation requirements for its EBS Live Ultra datafeed from mid-June, following a four-week period of data collection that began on May 15, after which it will cut off access to its five-millisecond data stream for clients who do not meet the maker/taker ratio.

The venue launched EBS Live Ultra in September 2016, with an update time of 20ms, as a faster alternative to its existing EBS Live datafeed, which updated every 100ms. While the 20ms EBS Live Ultra is available to all participants willing to purchase the feed, access to the 5ms version is limited to users who act as market-makers on the platform for at least 40 percent of their weekly volumes and contribute a minimum of $200 million in daily flows.

"We will… collect four weeks' worth of data before we start enforcing the rules," says Tim Cartledge, global head of FX at EBS BrokerTec.

From mid-June, the venue will calculate maker/taker ratios on a weekly basis. Clients who do not make markets for at least 40 percent of the time will be relegated to only being able to access the 20ms Live Ultra feed.

"What's unclear to me is how they came up with the ratio, and what will happen to firms that drop out from the fast-feed bucket. I just don't see how it's possible to come back once you're out. I think this may be particularly an issue for banks," says the head of sales at a non-bank market-maker.

But Cartledge says getting back into the fastest league should be relatively easy for those with a genuine intention to trade. "The $200 million volume threshold is very low and it's very easy to get back above the 40 percent level to qualify—you just act as a taker on the platform less, so rather than taking an offer you show a bid. We made the changes exactly for this reason: to encourage participants adding liquidity," he says.

> "The $200 million volume threshold is very low and it's very easy to get back above the 40 percent level to qualify—you just act as a taker on the platform less." Tim Cartledge, EBS BrokerTec

Broadly speaking, the participation criteria is a positive step as it encourages firms to direct flow to the platform rather than just aggress orders—though the efficacy of the requirement has yet to be tested, says an employee at a non-bank liquidity provider.

'Real Market-Makers'

"More people will have to come back to EBS if they want to utilize the faster data. Yes, the criteria will knock some people off the fast datafeed, but for real market-makers who want to provide liquidity and have real business to do, this shouldn't be an issue. Those who don't want to provide real liquidity to the Street probably shouldn't have access to this feed anyway," says the employee at the non-bank liquidity provider. "The maker/taker ratio is important, but I have suspicions about the impact the measure will have."

A potential problem is that firms in the 20ms stream may still be able to "see" what their market peers are doing, as activity on EBS platforms will spill over to secondary venues and show up in their data prints. In other words, even though there is the penalty of not getting access to the fastest data, this disadvantage may be too small to have a significant impact compared with market-makers benefitting from the 5ms data feed, who must also be active on other secondary ECNs.

EBS decided to set its fastest feed at 5ms updates due to its 3 to 5ms randomization policy, and because both Live Ultra feeds—including the 20ms—must be synchronized with the 100ms Live updates.

Rise of Regional IOCs

EBS is set to introduce so-called regional Immediate or Cancel (IOC) orders on its three matching engines. IOC orders are those that get cancelled if they are not filled immediately on arrival at the matching engine. While IOCs have existed on a global liquidity pool basis, the venue is planning to launch these orders regionally as well, so market participants can qualify which of the platform's three matching engines they want to send the IOC order to.

In a situation where there are two venues showing the same price, a client may want to route to EBS because of the absence of "last look." But Cartledge notes if the client then has to send the order halfway around the world to reach the matching engine with the most liquidity, depending on the time of day, the certainty of being able to execute at that price diminishes.

Deutsche Börse Revamps Content Lab to Harness Internal Datasets, Plans FX Feed

A year after its launch, the head of Deutsche Börse's Data IP "Content Lab" walks Joanne Faulkner through a rejig of the unit from exclusively focusing on creating new market data-related products to assisting other business units in taking advantage of the data they already have internally.

Last year, Deutsche Börse announced the creation of its Content Lab—a unit fenced off from the rest of the group that could focus exclusively on the development of "innovative content and intellectual property" for the exchange's market data unit. The lab was focused on using "more advanced data science and models to extend our market data offering," but has now been given a "broader mandate" as the exchange as a whole looks to deploy a guiding principle of "datafication"—or "datafying" the company—says Konrad Sippel, head of the Content Lab.

He describes this notion as "realizing there is more Big Data-related potential in all areas—not necessarily in the form of the market data products, but also in terms of process and product improvements, better services and new products that could be created across the entire value chain of the exchange, including the trading and the clearing and settlement parts as well."

To initiate this, the lab was given additional funding in March to grow its team and to assist in analyzing the different datasets collected across the exchange, and to come up with new ideas and improvements.

Now the focus will be "very much on the datasets that we have and thinking about how we can combine them with data from outside. The main focus now is to try and bring together datasets that exist independently of each other and haven't been brought together, or haven't been analyzed or utilized in the best possible way so far," Sippel says.

This includes looking at providing customers of the exchange's clearinghouse with better analysis around their settlement efficiency and, for example, the amount of failed trades they have compared to some of their counterparts, to optimize their clearing and settlement operation.

Deutsche Börse headquarters

The unit is also looking into some of the hedge fund data it collects through its Vestima hedge fund servicing product. "We sit on a lot of data that's available in PDF form…. We're looking at whether we can digitalize that and make it available," he adds.

Since the start of the year, the lab has added three data scientists, and Sippel estimates that the team will grow to around 10 data scientists with five or six other staff filling supporting roles.

Konrad Sippel,
Deutsche Börse

FX Data Feed

Before the lab's scope was expanded, Sippel says its primary focus was on developing the 360T FX feed, a low-latency currency datafeed. The exchange acquired 360T, a global foreign exchange trading platform in 2015 for €725 million ($796 million).

Sippel says that 360T's previous owners hadn't looked at the market data they were privy to "as a separate product or as something they could monetize. The market for raw and plain vanilla FX data is pretty commoditized and there's not huge potential and value-add from yet another data source."

Sippel says the Content Lab approached 360T as a "pilot project." "It's a good starting point as it's a fresh and untouched dataset that nobody had done anything with. It's a new market for us a well," he says. "We spent almost the entire year looking at whether we can somehow upgrade or add value to just the raw data. We are now in the final stages of handing over the first product to our data division to distribute the feed commercially."

The exchange aims to fully launch the feed—which is being trialed with several customers—in the second half of the year. As well as the low-latency feed, Sippel says the lab has also identified "internal-related insights" that will assist those running the 360T platform and dealing with clients to "better understand some of their customers' behavior, which in turn helps improve those customer relationships."

The lab identified "customers' patterns in how they were acting on the platform, such as how they provided quotes around specific events. The FX market is strongly driven by events such as interest-rate decisions," he says. "We noticed very different patterns of how specific liquidity providers on a platform were reacting to those, and that allowed the salespeople to make some recommendations to various trading participants on how they could potentially improve their performance on the platform during those events." ■

Bloomberg Updates on BRAIS Index 'Evolution,' Preps Customizable Indexes

Since buying the BRAIS index and analytics suite from Barclays last year, Bloomberg has been hard at work creating an integrated platform for data, analytics and indexes, while developing plans for expanding the indexes. Joanne Faulkner reports on the vendor's progress.

Bloomberg has unveiled plans to develop the former Barclays Risk Analytics and Index Solutions (BRAIS) business it acquired last year, and details of how it has already been able to accelerate its development plans for the indexes and portfolio analytics tools.

Lea Carty,
Bloomberg

At a recent launch event in London, Lea Carty, global head of buy-side solutions at Bloomberg, described how regulatory changes and market trends "have made these products really very valuable. The indexes and portfolio analytics that are required to support these indexes have increased their value. We recognized this well before this transaction and had been moving in this direction anyway. If you go back to before 2011, we didn't really have any portfolio analytics, but [then] we launched PORT. It has grown from less than 40 users on the day to nearly 25,000 a day now. In the index space, we had worked with UBS to purchase the AusBond fixed income franchise, and we have a partnership with UBS around a commodities index… we had been very much moving in this direction."

However, when BRAIS—which Bloomberg considered "the best-of-breed fixed income analytics and the best-of-breed portfolio analytics," Carty said—came up for sale, the vendor seized the opportunity to accelerate its plans, completing the acquisition of the business for £615 million ($806.4 million) last August.

Since the acquisition—the largest in Bloomberg's history—index production has continued on a stable basis, he said, and Bloomberg has retained the annual index advisory councils globally for the indexes, while also continuing to develop them, including switching the underlying data over to Bloomberg's own BVAL evaluated pricing.

Currently, the vendor is working on "two very sizable software migrations" behind the scenes. The first—known as "the index factory build"—is upgrading the existing 30-year old index production process. Bloomberg will keep the same structure to the indexes but leverage new technologies to deliver "a more robust, scalable platform that we can use to expand in terms of asset classes and… in terms of allowing clients to be able to customize indexes on the terminal," Carty said.

The second initiative, scheduled to go live in the third quarter of this year, is a custom index tool dubbed IQ <GO>, which will allow terminal users to "explore various concepts of data very fully on the terminal without having to actually create an underlying index—all of the supporting terminal functionality, all of the graphing capabilities, the worksheets, the ability to see constituents do returns-based attribution... with zero incremental pricing," he said.

Widening Access

Beyond these initiatives, the vendor is also working to increase access to these indexes overall to generate greater exposure for the underlying data that they represent, Carty said, adding that a key objective is to "expand access to these indexes and make them more useful. We think that this is what we can bring to the table that's different—being a global analytics, data and technology provider."

The indexes are also accessible via the IN <GO> function on Bloomberg terminals, which provides access to index-level data, as well as via the PORT <GO> function for risk characteristic analysis or performance analysis, and the BDS [Bloomberg Decision Support] <GO> component of Bloomberg's order management system. "This is a tool that helps you balance portfolios and generate orders on the basis of analytics and indexes," he said.

Sell-Side Initiatives

Also, for the first time, the indexes will be made available to sell-side firms "in a way that they haven't been available before," Carty said. "We're developing a group of dealers on the sell side who will start to trade index-linked products and total return swaps. As part of that effort, we've also created a standardized total return swap linked to these indexes that is now on the terminal. Our goal here is to try to make it easier for investors to be able to access the returns associated with these indexes."

By more tightly integrating its indexes and analytics with its order and execution management systems, Bloomberg aims to allow clients to "use the same analytics that you're using to understand the portfolio at the point where you originate orders," he said. ■

SCRAMBLED ESGs

More firms are starting to acknowledge the value of incorporating ESG (environmental, social and governance) factors into their investments processes. While the quality of ESG data available has improved, the lack of uniform, high-quality information on material factors that can affect price or value may stall more widespread adoption among institutional investors unless standards can be agreed. Joanne Faulkner investigates.

ESG data—sometimes called "non-financial" data, despite the fact that these data points have financial consequences that are arguably no less important than "traditional" data when assessing a company's financial prospects—measures a range of factors about a company, including carbon emissions, human rights policies, staff turnover, and corporate governance. In the past this may have been used only to promote sustainable business practices, but investors are increasingly seeing ESG, or sustainable investing, as a way to measure the operational strength, and efficiency of a company, and support management of long-term financial risks.

Some market participants see sustainable investing as way to completely revolutionize the actions of a trade. "Imagine if you took the 25 biggest polluters, and asset managers said 'We're not buying that stock; in fact, we're going to tell it short,' and in a couple of days they wipe 5 percent off those companies' value. That's enough money to solve the CO2 problem," says Philippe Burke, portfolio manager at Apache Capital Management.

Incentives

While "mission-driven" financial institutions have existed for some time, generally "people have not used environmental factors in any kind of aggressive way or size in the investment management space," Burke says. Now, however, "We're starting to see a more traditional investment management crowd looking at these problems and saying 'There's a strong economic incentive for us to stop doing this.'" Burke cites a meeting he had with a head of pension funds for a US state, who told a room of asset managers: "If I give you $15 million to manage and I find out that you're investing in a company that then pollutes a river, someone is going to come and ask me for $20 million to clean up the river. That's going to eat up more of the return than you're ever going to take on the money that I gave you." ESG now makes "economic sense," Burke adds.

Alan Brett, head of corporate governance ratings research at index operator MSCI, says the vendor has seen "a lot of movement" in the ESG space over the last two years, as well as demand for ESG data and services from "locations and sources that we've not seen interest from before." One reason for this, he says, is the transfer of wealth from baby boomers to millennials. "If you look at the data analysis that has been done on millennials, two-thirds believe investments are a way to express social, political and environmental value. That's twice the rate of baby boomers. Many wealth managers are starting to see that they need to position themselves to win this business. We're starting to see a spike in interest from the wealth management side, which is a relatively new trend," Brett says.

Simon MacMahon, head of research at ESG data provider Sustainalytics, says the perception that used to exist that incorporating ESG meant sacrificing returns was disappearing. "We have been around for 25 years, and for a large portion of that time, a very big challenge was overcoming the hurdle that people thought that ESG wasn't linked to investment returns, or that it may actually hurt them. I think that is one of the biggest factors that is driving the growth right now: that mind-set seems to have shifted," MacMahon says.


David Harris
London Stock Exchange

The drive for alternative datasets is also fuelling investor appetite for ESG data. David Harris, head of sustainable business at London Stock Exchange Group, says large institutional investors are getting "very focused on how they can integrate broader types of data into the investment process—and that very much includes ESG and low-carbon economy data sources."

Additionally, while there was a time when most of the work around ESG was in the equities space, fixed income and passive investing quant strategies are all now making use of ESG data, using models that take advantage of companies that are under- or over-valued based on the ESG data that they see, hoping to eke out a return from that data discrepancy.

Inconsistencies

But despite a greater appetite for ESG data, collecting and making sense of it isn't easy. While analysts, aggregators or data providers can search publicly available sources such as annual reports, corporate social responsibility reports, and company websites for some of the relevant information, it must then be manually collected, standardized and evaluated. Often, companies do not produce or disclose the necessary data, and definitions are inconsistent. One major issue is the variability of the data and the methodologies used by individual companies or particular markets that are not always compatible, says MSCI's Brett. "Sometimes we observe discrepancies between what we see companies reporting," he adds.

Pirta Wentzel, a responsible investment specialist at Finnish pension insurer Varma, says she regularly hears from portfolio managers that it's hard to find the information they need, and what information exists is difficult to locate, as it's usually not alongside the financial information. To tackle this, Varma now buys external ESG research, though this creates its own challenges as each vendor uses its own methodology for collecting the data, Wentzel says.

And while there is a slow but steady emergence of cleaner data, a lot of work is required to turn ESG data into investment-grade data. Typically, companies do not explicitly identify ESG factors that materially affect performance, which can make comparison difficult. A lack of an agreed-upon industry standard for measuring ESG performance is also a significant barrier.

The timeliness of the ESG data available is also a challenge, says the LSE's Harris. "The ESG data has to come out at the same time as other financial data so that investors can do the right kind of ratios and metrics… this is moving away from the world of pretty corporate social responsibility reports to serious data… [and] quite a lot of companies are not there yet," he says.

Fredric Nystrom, head of responsible investment at Swedish asset manager Öhman, says ESG "is becoming the norm for investors," and there will be further momentum around ESG as the quality of the data improves. This means investors are also more likely to move from an exclusion-based strategy to one of ESG integration and a "best-in-class strategy," as it will be easier to compare the sustainability performance on companies.

"Companies need to get better at reporting more substantial ESG information, the most financially material information… which can also lead to improved processes within the companies themselves," Nystrom says, adding that a significant amount of his firm's spend with data providers is accounted for by spend on third-party ESG analysis. "What gets measured gets managed…. It should not be a box-ticking exercise."

When there is no data available, or when certain factors are not disclosed, data providers must take a hands-on-approach to create or curate the information. Sometimes companies are not required to disclose at all or report differently across regions. Sustainalytics' MacMahon explains that in these cases, the vendor combines the lack of disclosure with assessments of other pieces of information to provide an overall view of performance. For an issue such as climate change, MacMahon says Sustainalytics is trying to assess the degree to which a company is managing its climate change risk. "Let's say they report on their carbon emissions and their carbon intensity, but they don't report on the degree to which they have programs or targets to reduce their carbon emissions. We would use that information to provide a score based on that assessment, and those indicators would be combined to create a balanced overall assessment of how well they manage their climate change risk."

Data Improving

But while challenges remain, it's not all "doom and gloom," experts say. MSCI's Brett says the quality of data has improved, in response to demand from customers. "Our clients are demanding better data, more data; some want all the data they can get. We have a feedback loop to the issuers—every company we rate receives a copy of their research.… That process of many issuers being asked questions by investors has improved the quality of the reporting from the issuer side, as well as the work from the various standard-setters."

MacMahon agrees that the quality of reporting has increased tremendously over the last five years. "Even today, many companies have insufficient ESG disclosures. This is particularly true with smaller companies, or in markets where sustainability reporting is less common," he says, adding that data quality is also an issue. "That said, it's also true that the breadth and the quality of the data that is becoming available is changing over time. More companies are starting to disclose this information, and companies are putting more energy into managing the quality of their disclosures."

The data quality issue is well illustrated by carbon data, he says. "We've seen a very rapid increase in the number of companies that are reporting their emissions. In many cases, the level of confidence in those numbers is relatively low. We've done our own analysis where we looked at all the emissions that companies have reported year-on-year over the course of five years, and it's just clear that the numbers jump all over the place. Carbon is a particularly challenging number to report because it can change based on M&A or changes of the boundary of an organization. There are all sorts of things that can make it complicated. We're still maturing in terms of setting standards and having those standards be applied to some of the data that we're looking at."

Burke says that while the quality of data is still poor, it is "enormously better" than three or four years ago—both in availability and quality. "Some of it is still questionable. There's so much data for which the underlying guideline that would determine what it is to be measured is very loose or is still being decided. How do you measure whether a company is environmentally friendly or not? What guidelines should we use? What variable should be looked at? What are the metrics that matter? And how do we measure them?"

Simon MacMahon
Sustainalytics

It's still very early on in the ESG adoption process, he says. "We're still at a point where we don't even know what we're measuring.... We don't' know what the yardstick is and what the proper metric is. We might be measuring CO2 emissions, but what amount is considered acceptable for which activity? No one is really taking the lead in determining that yet."

Öhman's Nystrom says that for investors, "knowing which ESG factors to focus on can be difficult." The information companies disclose needs to be strategically relevant. "More access to material and high-quality information will improve our investment decision making, increase business competition and help create a more sustainable future," he says.

This lack of agreed-upon criteria means companies can engage in so-called "green-washing," Burke says. "They're either acting as if they were environmentally friendly or they will carry out one or two activities that are cheap and easy for them to do so they can publicize it and continue polluting. It becomes like a smaller cost of doing business, just to look good, in the same way that someone would pay for advertising." While Burke says green-washing is fairly prevalent today, he expects that to quickly decline as guidelines become much stricter. "But we're still in that intermediary phase where it's very easy to do that," he says.

Another challenge is that companies can pick from hundreds of ESG indicators to report on, while also having to navigate the landscape of multiple optional frameworks.

As a result, many companies are experiencing "survey fatigue" with a "large range of organizations now asking for information," MacMahon says. "We are competing with many other organizations who are requesting data, some of whom fall short of best practices—and this is putting a strain on the companies." However, if companies want to efficiently respond to those requests, he says the first line of defense is to collect the most-requested information on an annual basis and publish it in an accessible manner.

> "Imagine if you took the 25 biggest polluters, and asset managers said 'We're not buying that stock; in fact, we're going to tell it short,' and in a couple of days they wipe 5 percent off those companies' value. That's enough money to solve the CO2 problem." **Philippe Burke, Apache Capital Management**

A Role for Regulation?

Some market participants are wary of the suggestion that regulation might accelerate more widespread, consistent ESG reporting, but others are looking to France for inspiration. Last year, French regulators introduced The Energy Transition Law (Article 173), which strengthened mandatory carbon disclosure requirements for listed companies and introduced carbon reporting for institutional investors that go further than any existing legislation. "The French legislation put the onus on the investment institutions, while in the past, things like the UK's Companies Act were about getting issuers to provide better data, such as carbon emissions data on a comply-or-explain basis, says LSE's Harris.

Lessons from France's example can be applied to other markets, says Harris, who is a member of the European Commission's High-Level Expert Group on Sustainable Finance, which has been tasked with creating a set of recommendations to "encourage more sustainable capital markets."

"It doesn't try to be too prescriptive in how you meet each of the criteria…. It's trying to encourage innovation and ways of reporting so that the market can start to form a view about what is useful and what is best or good practice reporting," he says.

However, while there is "an argument for regulation" some best practice standards are "starting to result in improvements anyway," says MSCI's Brett. "Sometimes the best efforts of the regulators don't always work.... I think for each company what is important is what is material....if a company sees a risk as material, it should be reporting data to help support that risk. There's no point in making companies report certain types of data just so that it's standardized if actually it's not really adding any significant value, and all it's doing is imposing a cost."

More important is that companies adopt standards. "The more companies get the external certification of their reporting from some of the accountancy firms or other firms who are certifying ESG disclosures, the higher the level of standards will rise. If more certifications are happening, then there is going to better reliability within the data."

Harris agrees that regulation can be helpful in promoting and enforcing standards, but adds that if regulators in different markets produce different recommendations, "that's not helpful for issuers," and could result in investors trying to compare "apples with oranges."

Standards Bearers

Multiple sustainability reporting frameworks have emerged to encourage regular, uniform ESG reporting—notably the Global Reporting Initiative set up in 1997 to help firms develop their corporate responsibility reports, and the Sustainability Accounting Standards Board, set up in 2011 to sets out standards for the disclosure of material sustainability information to investors in mandatory filings. While some market participants say these have made a difference in the quality and the amount of information reporting, some companies complain of an increasingly fragmented and burdensome process. Part of the issue is which standards should be used—although the organizations say they are mutually supportive.

It's not just standards bodies that are issuing reporting guidelines: stock exchanges are also getting in on the act. The LSE sent its own guidelines last year to around 6,500 listed companies, setting out eight areas for companies to focus on to ensure the information they publish is "strategically relevant." This includes not getting "too hung up" on where to report, Harris says. "What's important is that you put it out in the public domain. In the past we've been guilty of sending surveys to companies where we would ask them to provide information privately to us. We think the world has moved on now, and companies should be making this information public to all investors, to the whole market, which makes the data more credible."

In March, Nasdaq's Nordic and Baltic exchange launched its own voluntary ESG reporting guide to support its listed companies. Announcing the launch, Evan Harvey, global head of sustainability at Nasdaq, said the effort is a result of Nasdaq's work with the World Federation of Exchanges' Sustainability working group, which involves virtually all stock exchanges apart from the LSE, and the Sustainable Stock Exchanges initiative, which was founded in 2012. Almost half of the SSE member exchanges have issued some form of ESG guidance, with the others committed to doing so.

However, LSE's Harris warns that if different exchanges make different recommendations and go in different directions, creating variations in reporting standards, "trying to get a global consistency will be difficult." ■

THE STATE OF PLAY IN M&A

Despite some large deals in recent years, there is still plenty of room for merger and investment activity among financial data providers, with new equity capital and user firms becoming directly invested in their suppliers. Kirsten Hyde assesses the health of the data industry's M&A market, and identifies the content and data technology "sweet spots" for buyers and investors.

Merger and acquisition activity in the financial data industry has been overshadowed by a flurry of billion-dollar deals among financial technology providers, but is still a hive of activity for private equity money and consolidation. Will the data industry experience its own M&A boom, and does it provide attractive investment opportunities for venture capitalists and private equity investors?

New York-based investment bank, Freeman & Co., which specialises in M&A and capital-raising advisory services for the financial services industry, produces an annual financial technology snapshot report that helps to shed light on M&A activity in the data sector. With a focus on producers, aggregators and distributors of market data, news and financial information, and companies that perform analysis on financial data, Freeman & Co's report for year-end 2016 shows that deal activity rose by 58 percent from 2015 to 2016, with a total of 90 deals recorded globally in 2016.

Chris Pedone, an executive director at Freeman & Co., says this increase has been driven partly by companies that aggregate and manage data for the financial services industry becoming attractive targets for both strategic and financial acquirers.

> “What we are seeing is more of the big financial institutions making investments and forging partnerships with financial data and technology companies that are too big, fast growing and expensive to buy.”
> **Steve McLaughlin, Financial Technology Partners**

The report breaks down the deal types further, revealing that 62 percent of the 90 recorded deals were private equity or venture capital investments, while the remainder were strategic acquisitions. Although Freeman & Co. does not track the values of these deals (largely because most are not disclosed, and the few that are could swing aggregate values wildly), the company acknowledges that the average deal size made by private equity investors and venture capitalists is much smaller than the price tags of strategic acquisitions.

“This is a space where companies do not need a lot of capital in order to grow. Many are software companies that do not have huge infrastructures. There tends to be a lot of $5 million to $15 million private equity and venture capital Series A or Series B investments into these firms, and then some eventually get bought out several years later by a strategic company when they are a good bit larger. This is why you see fewer deals that are labelled ‘strategic’,” Pedone says. “However, I believe the strategic transactions constitute a majority of the deal value, if not the vast majority.”

In terms of the value of M&A deals in the data space, a handful of major transactions took place in 2015 and the first half of 2016, including exchange operator Intercontinental Exchange (ICE) acquiring financial data vendor Interactive Data for $5.2 billion, and information and analytics provider IHS agreeing to buy data provider Markit in a deal valued at around $5.5 billion. Although acquisitions like this have tailed off recently, with no large-scale deals announced so far in 2017, the market for transactions under the $300 million mark remains active.

“We’ve seen some of the bigger companies in the financial information space being fairly aggressive over the last year or so,” says Michael Maxworthy, a partner at Marlin & Associates, a boutique investment bank and strategic and financial advisory firm focusing on technology, data and analytics providers. “One example is FactSet, which has begun spending more than we are used to seeing. FactSet has acquired many small companies over the years, but the difference now is in their willingness to go bigger.”

In March this year, FactSet acquired BISAM Technologies, a provider of portfolio performance analytics and data management services, for $205.2 million from Aquiline Capital Partners. This followed its acquisition at the start of the year of Interactive Data Managed Solutions—the real-time market data desktop and custom web portal division of Interactive Data—from ICE for an undisclosed sum, its purchase of Vermilion Software for $67 million in cash, and its acquisition of multi-asset execution management system Portware for $265 million in October 2015.

Michael McFadgen
Euclid Opportunities

In other examples, investment research provider Morningstar bought Pitchbook Data, which tracks and provides data on venture capital deals, IPOs and mergers and acquisitions, in a deal valued at $225 million, and earlier this year Thomson Reuters acquired trading technology company REDI Holdings, and separately took over the Depository Trust & Clearing Corp.’s Clarient Global and Avox subsidiaries to bolster its Know Your Customer (KYC), client reference data and legal entity data capabilities.

While the search for unique content or capabilities that will differentiate vendors from their competitors is a driver of acquisitions in the data space, Maxworthy says the larger vendors are unwilling to take venture risk. “They are willing to pay more for a company once it has proven its model and is making, say, $20 million to $50 million in revenue, which is how they define scale, but for companies that are generating only a few million in revenues, [potential strategic acquirers] are saying, ‘Get bigger, get some scale, and then we’ll look at acquiring you’.”

Users Becoming Providers

Of course, it’s not just data and infrastructure providers that are participating in deals in the data space: financial institutions are also making investments and partnering with companies that are offering new data and information-related technologies that could give them a trading edge—though, as Freeman & Co’s Pedone notes, banks are more likely to make strategic investments as part of a consortium than buy a company outright.

For example, Kensho, a provider of cloud-based data analytics, has just scored $50 million in Series B funding led by S&P Global with participation from six of Wall Street's biggest banks—Goldman Sachs, JP Morgan, Bank of America Merrill Lynch, Morgan Stanley, Citigroup and Wells Fargo. The funding round values the three-year-old company at more than $500 million.

Kensho's machine-learning systems trawl through vast amounts of data and market-moving information, searching for correlations between world events and their impact on asset prices. Already a fixture on Goldman's trading desks, the latest funding round signals takeup and expansion of the platform inside the Wall Street's other powerhouses.

"What we are seeing is more of the big financial institutions making investments and forging partnerships with financial data and technology companies that are too big, fast growing and expensive to buy," says Steve McLaughlin, founder and managing partner of Financial Technology Partners (FT Partners), a San Francisco-based investment bank focused exclusively on the financial technology sector.

For McLaughlin, a big driver behind these strategic investments is the search for new, differentiated sources of information and a desire to analyze unstructured data, whether through artificial intelligence, machine learning, deep search capabilities or other tools, which did not exist just a few years ago.

"We have been through a big transformation from the start of this century when market data was expensive, had holes in it, and wasn't really global, to the present day, where it has become much more electronified and commoditized. The data selection has become global and cleaner, with the number of flaws going down in the system. Because the playing field has been levelled, people are seeking new, differentiated sources of information—and therein lies the reason for the rise of some of these companies," McLaughlin says. "People are reaching out for more unique sources of data to get an edge. What financial institutions care about is the 'unfound data,' the 'un-analyzed data,' the 'proprietary data,' on top of the typical tick-by-tick pricing data. People are trying to take it up a notch and are saying, 'Well, the generic data is nice, but there are gigabytes more data out there that could be useful.'"

This is where new companies such as Kensho, Dataminr and AlphaSense, among others, come in. "We are seeing a lot of new companies in this arena… which are looking at different sources of data, such as Twitter feeds, or they are providing deep search capabilities and new types of research tools, and these are the kinds of companies that are garnering attention from banks, institutions and individual investors," McLaughlin says.

Change Driving Change

Away from the big-dollar acquisitions and investments in more established companies, with a seemingly never-ending line of companies launching new products in the fintech space, how can data-related startups stand out from the crowd? And does the data industry offer attractive investment opportunities for early stage investors?

The simple answer is yes, and this has a lot to do with big changes taking place in the financial markets. Mark Beeston, founder and managing partner of London-based fintech venture capital firm Illuminate Financial Management, identifies these drivers as industry deleveraging, multi-jurisdictional regulation that is being introduced post-financial crisis, such as the European Union's revised Markets in Financial Instrument Directive (MiFID II), and a zero-tolerance compliance environment.

Gagan Sawhney
Freeman & Co.

"If you look at these as drivers of change, data of one form or another cuts across all of them," Beeston says. "The traditional market data environment is changing towards more unstructured data and cloud hosting, so the use of Big Data toolkits is an interesting space. Then there are data management and data governance sets of issues, with regulations like GDPR [the General Data Protection Regulation] coming in, which are also an interesting focus for us."

The core principle underpinning Illuminate Financial's investments is that a company must offer a solution to a critical market problem. "What we're interested in is whether this is genuinely solving a problem that needs to be solved, as opposed to 'Is this just an interesting and cool technology?' It is our belief that market participants within financial markets will and can ignore cool technology for a very long time, but if they have a genuine and pressing business problem, then they will look for solutions to solve it, which is where we come in as an investor," Beeston says. "This is certainly the case with Privitar, which is enabling companies to access their data in a safe and usable way, and Feedstock, which is addressing a data-saturation problem that investment managers face with huge quantities of research hitting their inboxes every day at a time when that they are also dealing with MiFID II-related challenges."

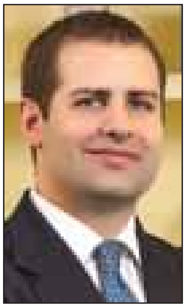
Michael Maxworthy
Marlin & Associates

Privitar, which helps firms publish, mine and share data more securely—a function known as privacy engineering—and Feedstock, which filters, categorizes, and tracks investor research using artificial intelligence software, are two of Illuminate's four investments so far in its three-year history. Beeston says the firm looks for similar drivers across the trade lifecycle and supporting infrastructure stack in other data areas. "For instance, compliance and trade surveillance is another potentially interesting area where the utilisation of data for that purpose is becoming ever more important," he adds.

Other financial technology investors with their eye on data-driven businesses include Euclid Opportunities, part of the NEX Group (formerly Icap). Since its inception in 2011, Euclid has built a portfolio of early-stage businesses where it believes it has the assets, connectivity and networks within the NEX Group to help those businesses grow faster and to deliver innovation and efficiency to clients in the broader market.

Euclid has invested in 10 portfolio companies so far, two of which NEX Group acquired outright last year—ENSO Financial Analytics, a data analytics platform provider for hedge funds and prime brokers, and regulatory reporting company Abide Financial. It has minority stakes in the other eight businesses, which offer products ranging from Blockchain technology to MiFID II-compliant research provision.

"We have had a sea-change in the way that large financial institutions think about data," says Michael McFadgen, managing director of Euclid Opportunities. "There is a good understanding that there are interesting data sets that sit around the industry and that are produced by virtue of processing activity from which, if you were to do clever things with data analysis and analytics, you could deliver back value to clients. The buzz now about things like artificial intelligence is effectively pointing a cannon at those big datasets and trying to use some of the new technologies that we're seeing in the AI and machine-learning world to produce value from datasets."



Chris Pedone
Freeman & Co.

Mark Beeston
Illuminate Financial Management

While the AI-type technology companies are certainly on Euclid's radar, McFadgen is also quick to point out that Euclid invests in business solutions that are driven by technologies that solve problems in the market. "We are very interested in someone who comes to us and says, 'Here is an industry dataset and this is how I can solve a problem,' or 'This is how I can add value from the dataset, and by the way, we use very sophisticated artificial intelligence or machine learning technology to do that.' We are less interested in people who are doing AI or ML just for the sake of doing it," he says.

For example, Euclid recently invested in RSRCHXchange, a cloud-based marketplace that aggregates research on stocks from brokers and independent research houses, and offers several functions to make it easier for buy-side firms to procure research and track how content is consumed within their companies in compliance with MiFID II.

"RSRCHXchange came to us last year, and what they had developed was effectively an iTunes for research, wrapped in a MiFID II-compliant workflow solution that had very good traction in the market. The founders are incredibly talented with deep domain expertise, and they ticked all our boxes in terms of what we would like to see in an early-stage investment. Importantly, we had a very immediate need both from our clients and from the wider market to help solve a problem," McFadgen says.

Euclid, like other investors in the capital markets, says it will continue to look for early-stage companies that are built on new technologies and are able to deliver products and services in a materially cheaper or efficient way or in a way that is value-enhancing. In the data world, particular areas of interest for Euclid include so-called community business models—the idea of aggregating and anonymizing data from across a company's client base in such a way that everybody shares from the value of that community data.

Looking ahead, industry participants are optimistic about the health of the M&A market, which they believe is being buoyed by the financial strength of the major players in the data industry. "There are big consolidators in the data space, whether it is Bloomberg, Thomson Reuters or S&P… and the private equity companies are great buyers for these assets as well. As long as the acquirers are generally healthy, the M&A market will remain pretty strong. These firms are healthy and they are always looking for additional revenues where companies can benefit from their scale," says Gagan Sawhney, managing director at Freeman & Co.

For McFadgen, a healthy large and mid-market consolidation landscape is good news for the early-stage community, because it shows that there are exit opportunities. "We have a very healthy and robust M&A market in the data space, and I think we will continue to see large financial market infrastructure players pick up data assets and bolt them onto their existing data businesses. We will also continue to see early-stage companies and later-stage mature companies build compelling business models around data," he says.

Beeston agrees, adding that in an environment where the volume of data that organizations are producing and needing to capture, recall and manipulate continues to increase, opportunities abound for companies across the spectrum, from early-stage companies through to large data vendors.

"The exit for many of the early-stage companies in which we invest is going to be industry consolidation into existing players, rather than IPO-driven," Beeston says. "The Thomson Reuters and the Markits have historically been leading acquirers of interesting solutions in their spaces, and I don't see that trend going away." ■

Can Automation Prevent Regulation Consternation?

The need for firms to automate internal processes is becoming a higher priority, especially when it comes to complying with constant changes in regulation—both domestically and worldwide. Wei-Shen Wong reports on the challenges facing firms attempting to address this issue in Singapore, where new proposals will see a massive increase in data reported to regulators.

Financial institutions are increasingly being bombarded by a barrage of new regulations, as well as updates to existing regulations. Moreover, they must also comply with regulations not only within their own country, but with regulations from different jurisdictions around the world that demand compliance in return for participation—such as the second iteration of the Markets in Financial Instruments Directive (MiFID II).

Singapore-based firms are facing one such double-whammy: Not only must they scramble to implement and start testing for MiFID II; they also have to deal with pressing updates to regulations from Singapore's central bank, the Monetary Authority of Singapore (MAS), which—though not entirely new—have been the source of a drawn-out back-and-forth between MAS and the industry over feedback on implementation challenges.

This process dates back to Dec. 31, 2014, when MAS proposed revisions to two of its notices—MAS 610 and MAS 1003—that regulate the submission of statistics and returns by banks and merchant banks. The first consultation, which closed on Feb. 5, 2015, contained proposals by MAS concerning the format and content of the reporting forms, reporting deadlines and items to be covered in the forms.

MAS proposed to increase the amount of data points and detail it collects from banks. According to

Abraham Teo, head of regulatory policy for Asia Pacific at AxiomSL, the number of data points that banks must submit would increase from about 4,000 to about 340,000 when the notices take effect. "It's about an 8,000 percent increase, or 80 times more data points to submit," he says.

Data required includes where trades are booked, the industries in which clients operate, and grouping of assets by countries, among other fields—many of which have not been previously captured under MAS' existing reporting requirements.

For example, under the current MAS 610, accrued interest is recorded and classified separately under "other assets" and "other liabilities" in the Statement of Financial Position. Under the proposed MAS 610, accrued interest will be included in the outstanding amounts of the underlying assets or liabilities. MAS' reasoning for this specific proposal is that the approach would result in the uniform treatment of accrued interest across all interest-bearing assets and liabilities.

MAS had initially proposed a six- to nine-month implementation timeline for banks and merchant banks to comply with the new submission requirements, but later proposed an 18-month period after respondents indicated constraints in meeting that timeline.

After even more consideration, it has given banks 24 months from the issuance of the notices to implement the revisions, as well as a six-month testing period for banks to ensure that data is correctly collected and submitted, therefore giving banks at least 30 months to make sure their data is shipshape and ready for reporting.

Elevating Automation

The sheer increase in the amount of data fields required for reporting to MAS is being seen as prompting banks to prioritize automating their processes. This is because it is unlikely that banks can afford a corresponding increase in regulatory headcount, Teo says.

"The focus should be on the automatic generation of the returns, as well as specifying any control reports to assist in analyzing the data—for example, creating a month-on-month or yearly trend analysis to see what items have significant movements, and focusing on analyzing the movements," he adds.

One of the central bank's expectations is for every bank and merchant bank to keep track of all trades booked and executed in Singapore, and for auditors to validate these transactions.

A MAS spokesperson says the proposed revisions to Notice 610 and Notice 1003 is part of the central bank's ongoing review of notices to financial institutions. "The first consultation focused on reporting of new data items and clarified data definitions. The second consultation focused on implementation details, including the setup of an industry working group with the Association of Banks in Singapore (ABS) to monitor the implementation of the revised notices," the spokesperson says, adding that a key challenge raised by financial institutions is the need to build systems to track and compile data at the required level of granularity to implement the proposed revisions. "MAS will work closely with ABS and the industry to ensure smooth implementation of the revised notices."

MAS is currently reviewing the industry's feedback to its second public consultation, and will provide its responses in due course, officials say.

Early Efforts Pay Off

Although MAS has not finalized an effective date, firms will benefit from preparing early rather than leaving it to the last minute—in part because of the complications introduced by addressing regulations from other jurisdictions alongside this. In a report published in 2015 following MAS' first consultation paper, Deloitte said inconsistent regulatory guidelines across countries makes regulatory reporting a complex task for global and regional banks, especially since regulators are becoming more specific and granular about the calculations behind each dataset.

Abraham Teo
AxiomSL

AxiomSL's Teo recommends that clients who have not automated their reporting systems should address the current MAS 610 and MAS 1003 first before attempting to automate the new proposals. Though MAS has yet to announce the effective date for compliance with the revisions, automating the current return would enable banks to free up resources to focus on the new MAS 610 and to cross-validate and check the current and revised results, enabling them to identify any issues early on, rather than closer to the compliance date.

To create a model adaptive to the changing regulatory reporting environment that includes a greater integration between risk, finance and operational data, and increases the ability to drill down into the underlying source data and transactions easily, banks would need to source and implement systems that can accommodate changes to calculations and reports going forward, and which can also cater to the requirements of multiple jurisdictions—some of which can include significant changes.

For example, one significant change included in the proposed MAS 610 notice is the introduction of a risk component, Teo says.

"For example, deals with Client A's Vietnam branch may be considered to have a different risk profile to the same deals with Client A's Singapore branch," he says.

That said—although the revisions require additional fields and more granular data—the majority of data required by MAS generally remains the same, so banks with existing systems that support reporting under the current MAS 610 would have a lot of reusability under the proposed update. In addition, the MAS 610 and 1003 notices are taken as the root for all other returns required by the central bank. Therefore, Teo says, it is likely that other returns will be reviewed and regression-tested against the revised MAS 610 and MAS 1003 to ensure consistency.

"The other main issue we have heard mentioned by our clients is one of sourcing new data—for example, loan purpose, ultimate counterparty, and execution method are some of the new pieces of data which the banks are required to source. If not available in current systems, enhancements to upstream systems might be needed to capture this information," Teo adds

Prepared or Scared?

Banks contacted for comment for this article were generally unwilling to comment on the progress of their implementation preparations, citing the fact that MAS has not confirmed an effective date for the revisions.

However, a regulatory risk manager at a global financial services firm says the feedback for the second consultation paper published by MAS shows the level of concern among banks.

"By the extensive 99 pages of industry responses for the second consultation paper for MAS 610, it is just unbelievable. It shows how much concern and challenges banks have in executing it. Given the quantum of feedback, I think it is reasonable to take a little bit more time to understand the industry's concerns. The devil is really in the execution," the regulatory risk manager says.

Bank of China, BNP Paribas, CIMB Bank, DBS Bank, Deutsche Bank, Nomura Singapore, and United Overseas Bank were among 35 respondents that provided feedback to the second consultation paper.

Some of the comments from respondents include questions about whether the MAS could provide a spreadsheet template for banks' internal testing and trial runs, and whether the central bank would provide specific instructions on how the data should be created and represented. In response, MAS has promised to revamp the existing data collection infrastructure, and to engage the industry on IT implementation.

Also in response to feedback from the first consultation paper, MAS decided to remove the distinction between the Domestic Business Unit (DBU) and Asian Currency Unit (ACU) in its banking regulations, and the requirement to report them separately—though this may create more problems for firms, notes AxiomSL's Teo.

"Because the MAS has decided to do away with the ACU and DBU banking units at the same time, banks would have to re-look at how their general ledger systems and books are set up, which might be a more fundamental change to the way data is processed in the general ledger," he says.

Though there will most definitely need to be some system enhancement requirements, much of the additional data already exists within banks, so the key challenge for banks is how to create a customized feed to report it. The regulatory risk manager commends MAS for acknowledging the investments that banks need to make to be able to comply with the revisions.

"This two-year turnaround time is quite welcome. MAS understands the practical difficulties for banks. Particularly for banks that are big in scale, it requires a sizeable amount of time and effort to map the data into the right format, granularity and structure. It's something that is easier said than done," the regulatory risk manager says.

Teo also praises MAS' efforts to be sympathetic to the other regulatory challenges facing firms. In the current regulatory landscape, uncertainty and changes are aplenty—not only domestically, but also on a global scale, with new regulations such as MIFID II and the International Financial Reporting Standards 9 (IFRS 9) coming into effect in 2018.

"The MAS has been very good in this regard, trying to provide some certainty to banks by spelling out their medium- to longer-term changes for regulatory reporting. This gives banks a clear roadmap of what needs to be done, and a decent amount of time to get the change implemented, which is actually pretty rare in today's regulatory world," Teo adds.

One Bank's View

Although the Notices are only applicable to financial institutions that hold a banking license in Singapore and currently report under the MAS 610 and MAS 1003 requirements, sell-side firms that are part of a banking entity in Singapore would also be affected, though firms regulated only under the Securities and Futures Act would not subject to the new rules.

The regulatory risk manager says the risk and finance team at her bank has already conducted internal assessments considering different options for pulling the data together to meet the proposed reporting requirements. "We are still in the initial feasibility stage. At this stage, we will try to identify any showstoppers or issues we really cannot deliver on. But at the end of the day, some of these matters might require manual effort—for example, defaulted assets. It depends on the items; some might require automation, others can potentially be done on a spreadsheet," she says.

The bank does not plan to employ an external solution to assist with collecting, managing and mapping the additional data required by the MAS for reporting, she says, adding that this decision comes down to cost–benefit analysis: Unless there are economies of scale for implementing such a solution, banks will tend not to use external solutions, but rather develop or upgrade their systems in-house.

"Particular to MAS 610 requirements, the key challenge is really in tidying up the data at the right level of granularity to suit the reporting requirements based on the raw data that's already being kept somewhere," so there is little value that an external solution can add in this instance, the regulatory risk manager says.

MAS plans to publish the additional data it will collect via a series of reports, though it remains to be seen whether or not the data will be comparable across banks. "It'll be interesting to see the consistency and storyline told by these reports. Whether they all come together and make sense is the big question mark: When we try to compare the same statistics across different banks, will the numbers really tell the story that Bank A has a problem while Bank B is fine?" the regulatory risk manager adds.

> "The focus should be on the automatic generation of the returns, as well as specifying any control reports to assist in analyzing the data—for example, creating a month-on-month or yearly trend analysis to see what items have significant movements, and focusing on analyzing the movements." **Abraham Teo, AxiomSL**

The additional and more stringent reporting requirements will only increase the capability for regulators—not just MAS, but also other regulators in the region that might seek to increase reporting requirements within their own jurisdictions—to enhance their supervision of financial institutions and therefore be able to identify any early warning signals of potential systemic risks.

With the certainty of constant change and increasing demands from regulators in the future, one thing is clear: Financial institutions need to be more flexible to changes to existing regulatory data requirements and ensure their internal systems are able to cope with change across multiple regulatory jurisdictions.

With little appetite to increase headcount to handle these processes and the volumes of data involved, automating collection and reporting might be seen in the short term as a drain on resources competing with compliance demands, but may prove to be the best long-term solution for dealing with future requirements. ■

ALTERNATIVE DATA'S HARD LABOR

Spending on alternative datasets by quantitative funds will pass $7 billion by 2020, yet most attempts to use it fail. Faye Kilburn investigates why, and how firms can avoid getting burned by hot new datasets.

Life as a quant at one of the world's leading factor investors can be a difficult and frustrating experience. At any one time, $74 billion quantitative hedge fund Acadian Asset Management has up to two dozen researchers dedicated to finding new signals in so-called "alternative" datasets—that is, data beyond traditional prices and technical analytics.

These datasets can range from the mundane, like anonymized credit and debit card transaction data and text-based analysis of webpages and social media, to the more exotic, like sentiment analysis and satellite imagery. Yet eight out of nine times, attempts to profit from these datasets fail.

"You're going to have to investigate 90 different things to get 10 that are good. A lot of people who aren't used to those odds will walk away in disappointment, thinking the whole thing is a failure—it's going to be a lot of waste," says Wesley Chan, director of stock selection research at Acadian Asset Management in Boston.

Half of Acadian's efforts fail because the vendors that sell alternative data are not used to dealing with financial consumers. As a result, their data is hard to feed into quantitative traders' models. In Chan's terms, it is "indigestible." Other times, the resulting signals are

> “You’re going to have to investigate 90 different things to get 10 that are good. A lot of people who aren’t used to those odds will walk away in disappointment, thinking the whole thing is a failure—it’s going to be a lot of waste.” **Wesley Chan, Acadian Asset Management**

episodic or do not fit into Acadian’s longer-term investment style, which seeks to hold positions for weeks or months.

“What disturbs me a little bit is how everyone’s talking about every one of these things as if it’s the next big thing. It can’t possibly be that way. Most of them are not going to be useful,” Chan says.

Acadian is not alone. Flows into quantitative strategies over the past 10 years mean existing players have been crowded out of traditional factors such as value and momentum. As a result, they are looking to new datasets to deliver alternative signals and sources of alpha.

But sifting for gold nuggets and shining them up is only half the challenge; by the time an alternative dataset becomes publicly known, the alpha associated with it has already started to decay.

This decay cycle typically plays out over three or four years, according to a chief market intelligence officer at an $11 billion hedge fund that invests heavily in satellite data. To combat this crowding effect, many quants are highly secretive about details of their alternative data efforts, though arguably this behavior introduces a further element of endogenous risk because funds could invest in the same data without knowing it.

Others are ramping up their teams of data scientists to identify and analyze ever-more esoteric sources and types of information. Acadian says it is on a mission to uncover the “hidden forces” that influence public companies.

The firm is using natural-language processing to trawl publicly available company announcements and disclosures to identify when groups of companies start to mention exposure to similar risks. The objective is to detect risk factors or factor exposures that are not likely to be identified by generic sentiment analysis.

“The computer can read a news headline and tell you if it’s good or bad. But so can a million other people and they may have already done something about it. [With news sentiment] the name of the game is just to get faster… but we’re more interested in the risk factors that accompany those announcements,” Chan says.

The fund is also making more effort to swallow previously indigestible datasets—unstructured and qualitative data, rather than quantitative data—on the assumption that the additional investment required to clean them up will be enough to discourage other firms from following suit.

Will Kinlaw
State Street Associates

“We have a number of ventures on right now where we’re actually working with shops that aren’t quite used to dealing with financial applications to bang their data into good shape. Even there, I’d say probably again half will not work out,” Chan adds.

The Hunt for Alternative Alpha

Despite the myriad challenges, quants are plugging money and resources into alternative data. Industry spending on alternative data is projected to exceed $7 billion by 2020, according to a report from Boston-based consulting firm Opimas.

The report cites a $3 billion hedge fund that spends more than $50 million annually on alternative data strategies, which includes not just the cost of licensing the data itself, but also the salaries of 80 data scientists and 70 systems developers. Based on these figures, the firm must generate at least 2 percent in alpha annually simply to cover the costs of its investment in this data, so the report infers a “conservative estimate” of alpha generation of between 4 and 5 percent from these activities.

The demand for alternative sources of alpha is being driven by crowding in traditional factors, according to Will Kinlaw, global head of State Street Associates (SSA), State Street’s academic affiliate in Boston.

Kinlaw believes the quant space is at an inflection point where the traditional factors that have been used for many years are now so widespread that funds are struggling to derive value from them anymore—hence the demand for new sources of information—with quants facing “a continual battle to

find new information and stay ahead of the curve."

Ernest Chan, managing member of quantitative investment management at QTS Capital Management in Ontario, can testify to this pressure. The intraday foreign currencies trader has already abandoned the use of weather and agricultural data due to crowding, while the location and load of an oil tanker—used to generate prices by being able to predict supply—is now regarded as a "normal" input of futures and options traders' oil price or gas price predictions, he says.

"Any known information is being exploited by more and more people, so we always constantly have to look for new sources of information to maintain the edge."

QTS is currently analyzing news sentiment signals to determine their correlation to the momentum factor. Typically, when stock prices rise, sentiment indicators move in the same direction, but the fund is seeking to understand exceptions to this rule, when sentiment is already factored into the price.

Sentiment does not actually tell the fund how to invest; it is merely one piece of information among many, and "that's where the model building becomes important," he says.

Chan's view is that alternative data signals cannot be used in isolation, but must be combined with fundamental data on companies, pricing, or even macroeconomic data to put the signal into context and form a complete factor exposure model.

However, the unstructured nature of the data presents a new set of challenges for funds that want to integrate alternative signals with classical factors.

Indigestible Data

Part of the reason the success rate of transforming alternative data into reliable signals remains low is that many sources of alternative data are qualitative and unstructured, which presents a unique challenge for quantitative investors.

Unlike structured data, which comes in rows and columns, many sources of alternative data are unstructured, requiring a higher quantity of data to confirm statistical inferences. However, many alternative datasets have short time-series histories that make them unsuitable for this rigorous back-testing.

Mana Partners, a $1 billion quantitative hedge fund, is skeptical about the signals derived from alternative datasets, such as e-commerce and satellite imagery, precisely for this reason.

"With more traditional data, you need less because you can actually have strong structural beliefs about how it fits into a model—it requires less data to extract value from a quantitative approach than an unstructured approach, where essentially, you're relying on the data to tell you the entire story," says Manoj Narang, chief executive and chief investment strategist at Mana Partners in New York, who likens the exercise of generating alpha from non-traditional data to "grasping at straws."

Even funds that have invested in areas such as satellite imagery acknowledge this drawback as a "big challenge."

"I wouldn't say we produced any alpha on it yet," says the chief market intelligence officer at an $11 billion hedge fund that is attempting to use satellite imagery to monitor quarterly car counts in the parking lots of retail outlets as a predicative indicator for company sales.

Even with four years' of history, this type of data can only provide 16 data points, and as a result cannot necessarily be used as a standalone factor.

The fund has attempted to get round this by blending satellite imagery data with other datasets to increase confidence in the signals, as well as exploring more bespoke projects with its data providers to find obscure information that can be extracted from images.

Boston-based "crowdsourced" hedge fund Quantopian, which last year received $250 million from Steven Cohen, chief executive of Point72 Asset Management, does not use satellite imagery because the breadth of signal is too narrow to justify the resources.

Jonathan Larkin
Quantopian

"All things being equal, we like datasets that cover a large number of securities and have at least daily periodicity. That would give the most robust opportunity to find and extract a signal," says Jonathan Larkin, Quantopian's New York-based chief investment officer.

Larkin estimates it would require six data scientists to produce a signal on 20 stocks from refinery data and parking lot counts.

"A typical quant portfolio would hold in excess of 1,000 stocks because traditionally quant portfolios like to be market neutral, sector neutral and industry neutral. To maintain that neutrality, you have to hold very many stocks. So what that means is, unless you have a very large portfolio and a very large research effort, you won't find value in datasets that are producing signals on a small number of names," he says.

The question of whether to invest time and resources is one of the greatest dilemmas facing quants when it comes to alternative data. It is difficult to assess the alpha potential of a signal and whether it is truly uncorrelated to other factors in the model before data has been cleaned up, but cleaning up requires investment, and some degree of belief that a signal exists.

Oddly, it is this barrier to entry that makes indigestible datasets so attractive to Acadian.

"Sometimes it's good for the data to be extremely messy so no one else can use it. It holds back other firms that aren't willing to make the investment," says Acadian's Chan.

The Cycle of Decay

Even if a quant fund does identify a new uncorrelated factor or signal to complement its existing factors, there are more obstacles to overcome—for example, data has an expiry date.

"It is a constant concern to anyone who is in the business of extracting alpha because alpha, by its nature, decays. It's a question of how fast it decays, but decay it will," says QTS's Chan.

Just like investment ideas, data goes through a lifecycle: when new data comes to the market, having access to the data is alpha-rich in itself. There was a period of time where funds might be able to extract a signal from credit card data in a straightforward way, but once that data became commoditized, the alpha potential went away.

A quant firm might invest time and money to identify a signal, only to find the rest of the market has had the same idea—a problem only exacerbated by the secretive nature of quants.

"It's a fundamental truism of quant finance that alpha factors don't last forever. You may discover something today that's novel and innovative, but it's a very competitive field. So the likelihood is very high that somebody else will discover something similar in due course and compete the alpha away," Quantopian's Larkin says.

And this is the crux of the problem with alternative data. It might be touted as the new frontier in investment management, but experience demonstrates it is often not the panacea asset managers might expect.

Not only must funds invest time, money and resources in finding and cleaning up messy datasets, with no guarantee that the end signal will suit their investment style or generate alpha, but by the time they identify a signal, they are already at risk of being crowded out.

Alpha-hungry funds need to ask themselves if they can afford to lose eight out of nine times in their hunt for fresh datasets. If the answer is no, then alternative data might not be the best alternative for them. ■

Slowdown Showdown

Three exchanges have submitted filings to the SEC to implement IEX-like "speed bump" delay mechanisms or order types. As the SEC sorts through the proposals, Dan DeFrancesco reports on wider industry concerns about what incorporating additional speed bumps and delay mechanisms might mean for the market.

The natural trend in technology is to speed things up. The implementation of a new type of platform or solution usually means quicker, more efficient processes. This theme is particularly evident in the equity markets, where the speed of market data and trade execution are both fast approaching light speed.

But that changed on June 17, 2016, when the Investors Exchange (IEX) and its 350-microsecond delay gained regulatory approval as a national securities exchange from the US Securities and Exchange Commission (SEC). In doing so, the Commission did more than just add an exchange—it took a stance on intentional access delays. In a release announcing IEX's approval, the SEC said delay mechanisms less than one millisecond are immaterial, and "will not prevent investors from accessing stock prices in a fair and efficient manner consistent with the goals of the Order Protection Rule," which falls under Regulation National Market System (Reg NMS) and "protects the best-priced automated quotations of certain trading centers by generally obligating other trading centers to honor those protected quotations and not execute trades at inferior prices."

While the SEC deemed the impact of IEX's speed bump on the Order Protection Rule to not be substantial, the same could not be said for its effect on some of the other exchanges, which considered the new interpretation of the ruling a chance to reevaluate their offerings.

Less than a year later, three exchange groups have submitted proposals to the SEC pertaining to integrating speed bumps or order types that


Jamil Nazarali
Citadel Securities

function in a similar way. Nasdaq and the Chicago Stock Exchange (CHX) are both currently awaiting regulatory approval from the SEC for proposals that, to varying degrees, mirror what IEX introduced less than a year ago, while NYSE Group received SEC approval for its own delay mechanism on May 16, as *Inside Data Management* went to press.

"There has always been an arms race amongst exchanges. A proliferation of what one person does another person does it in a different fashion," says Rich Vigsnes, global head of equity trading for Northern Trust Asset Management. "Once the SEC came out and said, 'Look, anything less than one millisecond is de minimis,' it just opened up the frontier for any type of speed bump."

It remains unclear whether the SEC's decision to grant IEX status as a national exchange was knowingly opening a Pandora's Box—exposing the industry to complexity issues due to an eventual proliferation of speed bumps—or merely the Commission's way of ushering the US equities market into a new era where speed isn't necessarily king. But it's clear that regardless of what's inside the proverbial box—and despite their previous positions on the issue—other exchanges are now interested in looking inside.

"The SEC has changed the definition of what they consider immediate," says Tal Cohen, senior vice president of North American equities at Nasdaq. "So we thought, 'Why don't we rethink how we can innovate and serve our customers in this new environment?'"

Same Model

Of the three proposals, NYSE's filing most closely mirrors IEX's current model. The exchange is looking to implement a 350-microsecond delay for orders on NYSE American (currently known as NYSE MKT), the exchange operator's venue for small- to mid-cap stocks. The two proposals are so similar that NYSE cited IEX 61 times in its 15-page filing submitted to the SEC on Feb. 9.

This was deliberate, says Michael Blaugrund, NYSE's head of equities, as the SEC has already set the bar for what is considered an approved speed bump, and implementing one extremely similar to what's already in place should make the proposal non-controversial.

However, there are some differences between how the two speed bumps operate—NYSE's delay is software-based, while IEX's is implemented through hardware; the two exchanges have different ways of routing orders through their speed bumps. Blaugrund maintains these are immaterial, though John Ramsay, IEX's chief market policy officer, disagrees, saying both these differences are substantial and need to be addressed. He also points to NYSE's lack of explanation in its proposal around why the exchange group wants to implement a delay, especially since NYSE strongly opposed IEX's approval as a national exchange.

Blaugrund, however, says the SEC's approval of IEX means NYSE should be offered the same opportunity to implement a speed bump of its own if it puts forth a similar proposal.

"We certainly opposed this development, and felt like the SEC should have taken another path. But given that this is the new state of play, we are going to offer customers the alternatives that they are interested in," Blaugrund says. "Our obligation is to demonstrate that our proposal is consistent with the Exchange Act. Given that we are proposing a model identical to one that the Commission has already determined to be consistent with the Exchange Act, we think it should be self-evident."


John Ramsay
IEX

Different Strokes

CHX's proposed speed bump differs from IEX in that it is discriminatory. Originally entitled Liquidity Taking Access Delay (LTAD) and filed in September 2016, the Chicago-based exchange resubmitted the proposal on Feb. 14 under a new name, Liquidity Enhancing Access Delay (LEAD).

Instead of applying a delay to only liquidity-taking orders, which was the case with LTAD, LEAD will be applied to all order types with the exception of liquidity-providing orders and cancel messages for resting orders submitted by LEAD Market Makers (LEAD MMs) who meet heightened market-quality requirements. The change was made in response to comment letters questioning whether LTAD would potentially allow firms to "quote bait" or facilitate non-bona fide trading liquidity strategies, says CHX associate general counsel A.J. Kim.

"We introduced these new performance standards, which we believe are as aggressive as—if not more aggressive than—any requirement in the National Market System for market-makers. We believe these standards will ensure that the quotes displayed at CHX will remain reliable and accessible," Kim says. "We decided to propose the most aggressive requirements possible that would not negatively impact the ability of most market-makers to participate in the program."

Nasdaq's Extended Life Order (ELO) is the most dissimilar from IEX of the trio of proposals, being an order type rather than a speed bump (Nasdaq, like NYSE, was critical of IEX's application to become a national exchange). ELOs, which were initially announced last August and are only available for retail orders, are granted priority in the queue over resting displayed orders as long as the order is not altered or canceled by the member for a minimum resting time of at least one second.

As with the other proposals, Nasdaq's ELO has faced criticism via comment letters. The main gripe stems from the fact that ELOs will be marked and identified via the exchange's proprietary datafeed, which could make them a target for high-frequency trading (HFT) firms. Nasdaq's Cohen says he understands the concerns raised by some about information leakage—and says the exchange will consider changing this in future ELO versions designed specifically for the institutional community—but when it comes to retail investors, the main concern is around improving fill rates.

"When institutional traders are building positions, or working out of positions, we understand and appreciate their desire not to be attributed—because it could lead to information leakage, or may be part of a larger block that could inadvertently move a market," Cohen says. "But an individual's single retail order is actually the retail trader's full expression of how much they want to buy. So to us, attribution seems well suited for retail at this time."

Risky Business

For some, the increase in speed bump applications was a predictable, unwanted result of the SEC's approval of IEX's application. Jamil Nazarali, senior advisor and former head of execution services at Citadel Securities, says this is the situation his firm warned of during IEX's application process.

"Exactly what we worried was going to happen is happening in that there is a proliferation of speed bumps, which means that the National Best Bid and Offer (NBBO) that you see is much less transparent, fair and accessible," Nazarali says. "Every time you add a speed bump, the price that you see may not be the price that you can get. This makes it more difficult to manage risk, and creates complications for all market participants. We think this is a really bad development for the markets."

Citadel has been critical of all speed bump proposals, already submitting multiple comment letters criticizing Nasdaq and CHX's applications. For Nazarali, a market full of speed bumps will make it harder for firms to understand how to properly manage their risk because they can't access quotes quickly as a result of the delays.

"Not only can I not get the price that I see on the screen, but I may have to send the order to the speed bump venue due to the Order Protection Rule. I would have to wait for that order to come back and be declined before I can go to the next venue to access that quote, and by the time I do that, the quote may be gone," Nazarali says. "This creates problems for anyone trying to manage risk and trade quickly, particularly in a volatile and fast-moving market."

Unreliable quotes will lead to uncertainty in the markets, which will lead to wider spreads, Nazarali adds. Firms conducting arbitrage trades will need to take on more risk, as they might have to hold on to one of the legs of their trades for a longer period of time, forcing them to widen their spreads to ensure their profit covers the additional risk.

"Over time, true value is going to deviate more and more from the stated price. I think the market will become less efficient for anyone trying to do a trade," Nazarali says. "People will still get their trades done, but the price will be worse—it's not going to be a huge difference, but depending on how big that component of the market grows, it's going to have an effect."

Vishal Sood
Citi

More Complexity

Northern Trust's Vigsnes says added market complexities could include that the consolidated tape will no longer be in time–price priority sequence because of the potential delays from different exchanges. Firms will need to sort through how order types are implemented and what type of criteria they contain, he says, requiring firms to decide how to route orders based on that information.

With all these potential consequences, Vigsnes questions the purpose of these types of implementations, and who benefits from them. "What was the speed bump intended to do? It was intended to prevent the ability to see action in one market and react to it in other markets," Vigsnes says. "OK, if you don't want that behavior, then maybe you should do something from a regulatory standpoint that gives you the behavior you're looking for, rather than throw out some arbitrary number like one millisecond, say it's de minimis and see what evolves…. I think it's a response to behaviors that market participants have said they want to be able to try and adjust, but I don't think that it's the right answer as a market solution for the whole market structure—it's more like treating the symptom."

Exchanges implementing different delay mechanisms with various lags could create further disparities, which is ironic considering the point of many of these additions is to lower the discrepancy between faster and slower participants, says Vishal Sood, global head of electronic trading technology and head of North America equities technology at Citi. But firms would simply need to adjust their smart order routers, which are already accustomed to the idiosyncrasies of different exchanges, to account for these additional differences, he adds.

Detractors of delay mechanisms have continually made the point that speed bumps will negatively impact the NBBO, and while Sood says more speed bumps would have an effect, it might not be as devastating as some suggest. Instead, because both the pre-calculated NBBO from the Securities Information Processor (SIP) and self-calculated NBBOs will both be subject to the same delays, he says it will create a level playing field. And while he doesn't think more exchanges will implement speed bumps, he does see the market evolving via more order types similar to Nasdaq's ELO, and looking to slow down of some of the faster participants.

Overall, though, Sood believes the industry should stop looking at speed bumps and new order types, and instead focus on making the markets simpler. The industry would be better off taking a step back and rethinking how firms trade, he says.

"The market needs to take a macro view and look at how to get out of this vicious cycle of continuing to trade in these smaller, little inefficient sizes," he says. "I think if the exchanges keep adding new implementations, be it speed bumps or newer order types, they will keep making it more and more complicated. It's going to defeat the purpose that they actually started with, which was to make it simpler for the participants."

Like the trade sizes, the amount of market share potentially impacted is also small. IEX's average market share has hovered around 2 percent since the start of 2017. CHX has maintained roughly 0.5 percent market share over the past year, while NYSE MKT holds approximately 0.25 percent during the same time period. ELO will be implemented directly on Nasdaq, which holds roughly a 14 percent market share, but as an order type and not a speed bump, it will be optional.

Unaffected

In fact, some believe they won't be impacted by speed bumps. Broker-dealer systems will not be greatly altered if more delay mechanisms make their way onto exchanges because latency already exists across

A.J. Kim
CHX

the different venues, says JP Chauvet, chief technology officer for equities at Deutsche Bank.

"Exchanges adding speed bumps does not change anything about how you would design an algo-trading or smart-order routing system. The industry… chooses where to trade based on execution performance. Latency is one of the parameters that we take into account in those routing rules. That has been the case for a long time," Chauvet says. "There is no system change needed to factor an additional delay on one specific exchange, because at the end of the day it's about execution performance and execution quality."

Order types like Nasdaq's ELO are a different story, Chauvet says, as those will have an impact on brokerages. Any firm trading with Nasdaq will need to support the order and then change its routing rules to either use the order type or not. But speed bumps will essentially be immaterial to broker-dealers.

"As a broker, we are really agnostic to this. We trade based on execution quality, which we measure both real time in our routing rules, as well as post-fact, where we really look at fill ratios and other metrics where we put all the exchanges in competition and then we basically route our volumes on those where the execution quality is best," Chauvet says. "Speed bumps do not affect positively or negatively how we do that."

Incumbent Weighs In

As for IEX, the newest national exchange remained relatively quiet on the topic for a while, perhaps avoiding the spotlight while waiting for the dust to settle on its recent approval. The exchange didn't submit comment letters on CHX's proposal, but sent the SEC a comment letter criticizing NYSE's plans for the reasons previously listed in this story, and in March also filed a comment letter regarding Nasdaq's ELO. IEX's Ramsay also takes issue with both CHX and Nasdaq's proposals, citing the former's discriminatory design and describing the latter's choice to attribute orders on its proprietary feed as problematic.

That's not to say IEX is opposed to other speed bumps. Ramsay says that even if every market had its own unique speed bump that still wouldn't make things more complicated than they currently are. "Each particular market operating has unique geographical characteristics. They all sell multi-tiered access. Most of them sell proprietary datafeeds. They all have these complicated pricing systems. So each market participant, in order to survive in that ecosystem, has to understand the unique features of that particular exchange relative to the others," Ramsay says. "Whatever speed bump or delay mechanism anybody might impose—as long as it is clearly described—is not going to be that difficult to add into the mix of understanding how to deal with that particular market compared to the others."

It's not simply a matter of asking whether a speed bump is good or bad, Ramsay adds. The devil is really in the details of each offering. He does admit, though, that it could be a bad thing if a trend were to arise where individual markets were to adopt speed-bump mechanisms that selectively slowed down some participants compared to others.

"If markets are experimenting with ways to deemphasize speed as an advantage in a way that works for purposes for applying equally to all participants, and everybody did that, I think it could be a real advantage from the standpoint of the overall market structure," Ramsay says. "Frankly, I think the ideal situation would be if you had four or five real exchanges—not just families of exchanges—that could offer somewhat different models but are competing vigorously with each other on the basis of service and execution quality and price. That would be a lot better system than the one we have today. And we'd like to be one of those, obviously." ■

Human Capital

Ipreo Lands Ex-Thomson Reuters Exec Lojko

Technology and analytics provider Ipreo has appointed former Thomson Reuters executive Albert Lojko executive vice president and head of corporate solutions to drive "continued growth and innovation" in its investor relations and broader corporate services offerings.

Lojko was most recently global head of open platform at Thomson Reuters, where he spent more than eight years in roles that included global head of product for the vendor's Eikon desktop, and global head of content strategy, data delivery and quantitative analytics.

Lojko previously spent just over a year as managing director of fixed-income trading platform Tradeweb's equities business, before which he spent six and a half years as a senior vice president at Thomson Corp., prior to its acquisition of Reuters. He began his career at the Carson Group, rising to managing director.


Albert Lojko


Diarmuid O'Donovan

Wolters Kluwer Adds Finance, Risk Market Manager in APAC

The Finance, Risk and Reporting arm of risk and compliance information and solutions provider Wolters Kluwer has appointed Sarfaraz Ahmed as market manager for its Finance and Risk business in the Asia-Pacific region, based in Singapore.

Ahmed was previously workstream lead for IFRS 9 risk delivery at Standard Chartered Bank in Singapore, where he spent almost 11 years in roles including senior manager of commercial risk analytics and senior manager of retail risk analytics.

Before joining Standard Chartered in 2006, Ahmed was senior analytics lead at FICO in Bangalore, and a manager at ICICI Bank in Mumbai.

Rimes Hires LGIM's O'Donovan

Managed data service provider Rimes Technologies has hired Diarmuid O'Donovan as chief operating officer, replacing Mitesh Modi, who has become chief financial officer.

O'Donovan, who reports to chief executive Christian Fauvelais, was previously chief data officer at Legal & General Investment Management, prior to which he was global head of data at UBS Asset Management, and held various senior roles at JP Morgan.

Visible Alpha Hires Research, Data Vets McNerney, Stemberger

Research and data platform Visible Alpha has hired Mark McNerney in London as head of EMEA sales, and Janet Stemberger in New York as head of relationship management and client development.

McNerney was previously senior director and global head of strategic partnerships at Fitch Solutions, prior to which he spent seven years at BCA Research in senior commercial roles, and also served as business development manager at UK-based data vendor Perfect Information.


Mark McNerney

Stemberger spent the past six years at S&P Global Market Intelligence as senior vice president of global sales, prior to which she spent 10 years at Thomson Reuters (and previously Thomson Financial) including stints as vice president and regional account director for global accounts, and senior global relationship manager. Before that, she was market assessment director at RR Donnelley, an associate and research and financial management consultant at business and location strategy advisor Kelly, Legan & Gerard, and a research analyst at Moran, Stahl & Boyer, a firm providing site selection and economic development advisory services.

Both McNerney and Stemberger report to Visible Alpha chief revenue officer Charles Poliacof.

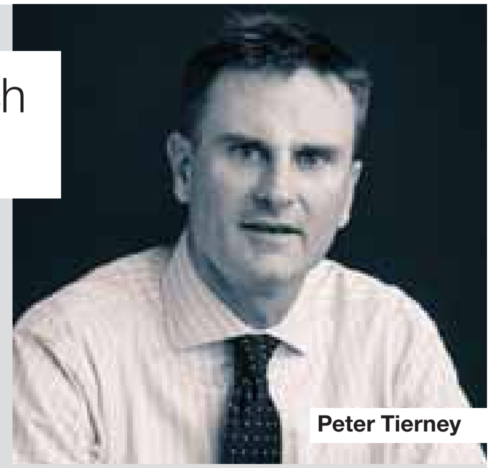
Web Financial Nabs Naumann to Expand North American Footprint

Madrid-based financial data and technology provider Web Financial Group has hired Mitch Naumann in Chicago as director of North America, responsible for expanding the vendor's growing presence in the region.

Naumann was most recently head of institutional sales at Chicago-based data and analytics vendor Barchart, having also served as institutional sales director and global market data sales manager since joining the vendor in 2008 as a sales associate.

He reports to Jeremy Diamond, Chicago-based president of Web Financial Group, North America.

AxiomSL Taps Data, Tech Vet Tierney in Asia


Peter Tierney

Risk, data management and regulatory reporting technology provider AxiomSL has appointed data industry veteran Peter Tierney as chief executive of its Asia-Pacific business, responsible for helping to accelerate the vendor's growth as it expands its offering in the regulation and risk management sectors in the region.

Tierney was previously chief executive of the DTCC Data Repository in Singapore and regional head of DTCC's Deriv/SERV business, prior to which he was a principal of consultancy Saquish Partners. Before co-founding Saquish in 2012, Tierney spent six years at NYSE Technologies as chief operating officer for Asia, regional managing director, and MD of TransactTools prior to its acquisition by NYSE Tech. Before that, he held senior business development roles at BT Radianz in Asia and New York, prior to which he was deputy MD for the Americas at Omgeo and held various roles at Thomson Financial ESG before its joint venture with DTCC to create Omgeo.

Based in Singapore, Tierney reports to AxiomSL global chief executive Alexander Tsigutkin.

Ex-Thomson Reuters' Bauman Joins TIM Group Sales Team

Trade ideas and analytics provider TIM Group has hired Jeff Bauman as a sales director in its New York office, responsible for increasing the vendor's US footprint and supporting existing clients.

Prior to joining TIM Group, Bauman spent more than seven years at Thomson Reuters, where he was a solutions sales specialist responsible for selling quantitative datafeeds and analytics, having joined the vendor during its acquisition of StarMine in 2008, where he was an accounts manager. Before working at StarMine, he spent six years as an equity research analyst, first at Prudential Securities then at Smith Barney.

Bauman reports to Michael Chiappinelli, TIM Group's head of sales for North America.

German Data Vendor VWD Promotes Ramabadran to CEO

Frankfurt-based data vendor VWD has promoted its head of technology Shiva Ramabadran to chief executive, effective immediately, replacing former CEO Martin Gijssel, who has left the vendor.


Shiva Ramabadran

Ramabadran joined VWD in November 2015 as an advisor to "guide some key infrastructure projects," reporting directly the vendor's board. He remained in that role until August 2016, when he took over as interim chief technology officer, responsible for "managing all development teams and activities and infrastructure for VWD," the vendor says.

Prior to joining VWD, Ramabadran held management positions at firms including BlackRock, Prudential and Tudor. A VWD spokesman says Ramabadran "brings his extensive experience in design and implementation of technological infrastructures for internationally renowned companies, and has created the infrastructure for numerous well known buy-side institutions on Wall Street," including five years managing the research and development team at Wall Street Systems.

In addition, the vendor has moved its chief product officer Udo Kersting into the role of chief revenue officer, where he will be responsible for consolidating all revenue-generating activities which include sales, marketing and consulting.

Ex-Reuters Vet Powell Joins Ballintrae Board as Strategic Advisor

UK-based market data consultancy Ballintrae has hired Mike Powell, former managing director of Thomson Reuters' Enterprise business, as a strategic advisor to the company's board of directors.

Powell, who took up the position on April 24, will assist the board with strategy and execution as it plans to roll out a new cloud-based utility service that will "streamline and commoditize services and provide that as a utility to the industry," as well as being able to introduce his "wealth of contacts" to Ballintrae, says founder and chairman Steve Street.

Powell currently runs Inkblue, a consultancy focused on data, analytics and financial technology. He left

Thomson Reuters last October after more than 20 years at the vendor in various roles in London and Japan, having originally joined then-Reuters as a business development manager in 1995. Most recently, he served as managing director of Enterprise, leading all of Thomson Reuters Enterprise business, covering its real-time and reference data feeds, data and text analytics, real-time data management platforms, hosting and managed services capabilities. Before Reuters, Powell served as an account manager and Nordic business development executive at Bloomberg, and was a sales executive at Nomura.

Fenics Adds Execs from Rivals

BGC Partners-owned over-the-counter pricing data provider Fenics has made two hires on its sales and business development teams in New York.

Damien Fitzpatrick joins the vendor as head of sales for Fenics Market Data for the Americas, reporting to director of sales Elliott Hann. Fitzpatrick was most recently head of sales and business development for Asia-Pacific at interdealer broker Icap, prior to which he spent 19 years at Reuters and then Thomson Reuters in commercial roles in London, New York and Singapore.

Meanwhile, Joel Machado joins Fenics as head of business development for Latin America, reporting to Fitzpatrick. Machado was most recently head of sales for Latin America at interdealer foreign exchange platform EBS BrokerTec, prior to which he was vice president for Latin America at Integral Development. Before that, he spent three years at Bloomberg in foreign exchange electronic trading and content acquisition, was head trader for the international desk at Bradesco BBI, and spent eight years as trader then head trader at Banco Sofia.

Best Credit Data Nabs Muni Vet Metzold


Tom Metzold

Best Credit Data, a startup provider of evaluated pricing for municipal bonds, has hired muni bond industry veteran Tom Metzold as senior managing director, responsible for leading the vendor's quality assessment process for muni bond pricing on its pricing platform. In addition, Metzold will "further validate the company's unique pricing methodology and value proposition to the industry and its clients," says Best Credit Data co-founder and chief operating officer Jimmy Suppelsa.

Metzold was most recently head of capital markets at bond insurer National Public Finance Guarantee Corp., prior to which he spent 28 years at investment manager Eaton Vance in various roles, including senior municipal portfolio manager and co-director of municipal investment, having joined the firm in 1987 as a high-yield muni bond analyst, after five years as a financial analyst at General Electric.

In his new role, Metzold reports to Best Credit Data chief executive Pierre Robert.

Redline Moves Lau to London

Woburn, Mass.-based ticker plant and order execution technology provider Redline Trading Solutions has appointed Patrick Lau director of EMEA sales, responsible for expanding adoption of the vendor's high-performance solutions in Europe.

Lau has moved to Redline's London office after joining the vendor in New York as a global sales executive a year ago from Hewlett Packard Enterprise, where he was an enterprise account manager, prior to which he was an account manager for financial markets at CenturyLink, which he joined as a result of its acquisition of network and hosting provider Savvis, where he held various sales support, commercial development and financial operations roles.

At Redline, he reports to vice president of sales John Hanna.

TRG Names Former DTCC, Omgeo, TR Exec Walters MD of Priory Solutions


Leigh Walters

Market data inventory and cost management software vendor TRG (formerly known as The Roberts Group) has hired Leigh Walters in London as managing director of its recently acquired Priory Solutions business, with responsibility for strategy, operational performance and for fully integrating Priory into TRG.

Walters was most recently chief commercial officer at data extraction and analytics software vendor Vladis, prior to which he was managing director and global head of sales and partners at the Depository Trust & Clearing Corp. Before that, he held various positions at DTCC joint venture Omgeo, including global head of sales, head of EMEA business, and product management, business development director, and chief of staff to the chief executive, and as finance and operations director at Thomson Reuters, DTCC's partner in Omgeo.

Walters joined TRG in January, and has recently completed the transition into his new role, taking over from Priory Solutions founder Peter Borchers, who officials say has stepped back from day-to-day operations following its sale to TRG, but remains a strategic advisor to the company.