Technology Handbook 2016/17

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Editor: Mark Dugdale
markdugdale@assetservicingtimes.com
+44 (0)203 750 6022

Deputy Editor: Stephanie Palmer
stephaniepalmer@blackknightmedialtd.com
+44 (0)203 750 6019

Contributors: Becky Butcher and Drew Nicol

Associate Publisher: Joe Farrell
joefarrell@assetservicingtimes.com
+44 (0)203 750 6027

Publisher: Justin Lawson
justinlawson@assetservicingtimes.com
+44 (0)203 750 6028

Designer: James Hickman
jameshickman@blackknightmedialtd.com
+44 (0)203 750 6021

Recruitment Manager: Chris Lafferty
chris@assetservicingtimes.com
+44 (0)208 663 9624

Office Manager: Chelsea Bowles
accounts@securitieslendingtimes.com
+44 (0)203 750 6020

Office fax: +44 (0)20 8711 5985

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The heart of the machine

Technology, a bit like love, is all around us. Almost everyone has a smartphone, and each smartphone could contain anything from complete works of classic literature to travel itineraries and tickets. Of course, these days, you can also carry a whole world of personal banking in your pocket.

The financial services sector is not immune to the changing of times, but it is also not known for being quick to react. In reality, however, it's not that institutions are reluctant to leave the past behind. Rather, it can be too difficult to turn things around within the timeframe that modern customers have come to expect.

Tales of Blockbuster and Netflix prove that there's no love lost between legacy firms and disruptors. But now the financial services industry is catching with up innovation, it seems to be adopting a policy of working alongside this kind of newcomer to create a more harmonious relationship of mutual support and respect—a relationship that just might have a future. Whether this is because the sector is more regulated than the likes of movie distribution, it's working with the benefit of hindsight, or because these institutions are 'too big to fail', it's difficult to tell. In fact, perhaps it doesn't matter.

In this, the first Asset Servicing Times Technology Handbook, we hear from some of the firms, large and small, offering specialist technology solutions to asset managers, who debate the rise of the disruptors on p46. We also look into what we can expect from a future of blockchain on p32, and tackle the underworld of cyber crime on p8.

It is fast becoming the case that there is a technology out there for everyone. While it may not be all rose petals and sunset picnics, the notoriously coy financial services industry is beginning to embrace a future with fintech, and quicker than we might have expected.

Stephanie Palmer, Deputy Editor

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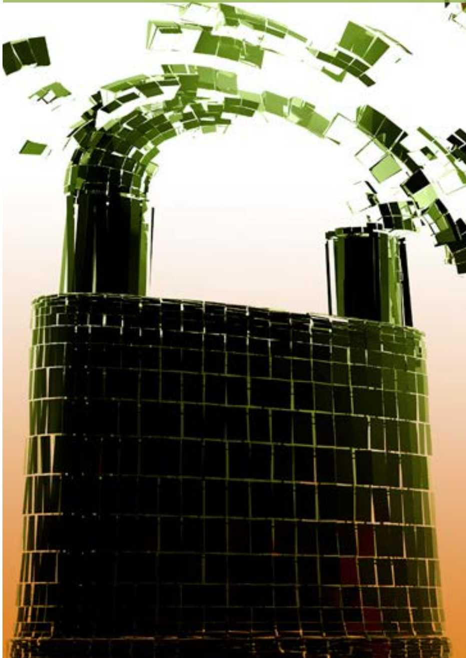

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Cyber

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Security

Cracking the cyber safe

Criminals are turning their attention to securities services, and it will require more than just a lock and key to keep clients' assets, and data, safe and secure

Crime has undoubtedly changed. No longer are stripy-shirted robbers sneaking around with swag bags or scarpering from Bobbies on the beat, and bank heists don't require expert safecrackers and getaway cars.

Criminals hide behind the anonymity of the web, break in using codes and malicious software. Thefts can take weeks or months to pull off, and the stakes can be much, much higher.

Previously, these cyber criminals mainly targeted retail banks.

But, according to Christian Arndt, director of cyber security at PwC, as these banks have improved their defences, hackers have improved their knowledge of the financial system, improved their own technology, and clocked on to the fact that there may be handsomer gains to be gotten elsewhere.

Arndt says: "Cyber criminals are now moving up the value chain and are looking at asset managers, institutional investors and pension funds as potential targets."

"Institutional investors tend to have a more immature security culture and technology than the rest of financial services—banks and insurers. So the risk from phishing and malware attacks would be high."

Still, institutional investors are a broad and diverse group, and some may be more at risk than others. Ray Pompon, director of security at Linedata, stresses that "anyone with direct access to funds or easy credit is a high value target for cyber crime".

He adds: "Those with less liquid assets—and by liquid, I mean convertible on the cyber black market—are less at risk."

Gerard Joyce, co-founder of LinkResQ and chief technology officer of risk management application CalQRisk, argues that the risk is very real for all financial institutions. "It's only a matter of time until they are a victim of some kind of cyber breach, a hack or a cyber security incident. Institutional investors are probably more at risk than your average organisation, but all organisations are at risk."

As hackers have become more innovative, so too have the types of attacks, says Joyce.

The threat is no longer merely monetary, neither is it all about stealing data—whether that's client data or commercial.

Distributed denial of service (DDOS) attacks are an increasing issue. 'Zombie PCs', or PCs infected with malware, are hijacked, unbeknownst to the owner, to send hundreds of requests to an organisation's web-facing server or application, overloading it and causing it to fall over, or to simply be unable to process legitimate requests.

“Intruders are often unnoticed. A commonly cited average 'dwell time' is 90 days—in which time attackers have harvested all the information they want”

This kind of attack could be the work of 'hacktivists'—groups that disagree with certain ideals of a company and so strive to deny access, causing lost sales or simply damaging consumer trust.

Alternatively, and more worryingly, a DDOS attack could be a distraction, getting IT teams to focus on the web traffic and allowing hackers to effectively break in through a back door.

Another major issue is that of integrity. Once hackers break in, they can corrupt the data that feeds investment formulae, meaning investors receive incorrect information and make poor decisions. Small errors could make it easier for criminals to exploit the systems later, on help them gain the information necessary to pull off a phishing scam, or again, cause irreparable damage to client trust.

What is concerning is that intruders are often unnoticed. According to Joyce, a commonly cited average "dwell time" is 90 days—in which time attackers have harvested all the information they want.

To protect themselves against any and all of these issues, banks have to invest time, resources and IT power.

This begs the question of whether, while big brand banks can afford to throw money at the problem, smaller boutique asset managers are leaving themselves open.

According to Pompon, it's a tricky one to call.

He says: "Larger institutions have more visibility and assets, so they are more of a target than smaller companies. But larger institutions also have far more advanced cyber security defences."

"When large firms do experience accidents or breaches, they tend to be huge in nature and hit the news headlines, so there is an availability bias in some people's minds as well."

"Being a boutique asset manager doesn't necessarily mean 'boutique' levels of assets under management, so it may be somewhat naïve for boutiques to feel protected by their theoretical size"

Arndt also hones in on the public profile and large attack surface of large institutions—they have huge offices, websites, branches all over the world, and millions of customers, while boutiques may, so far, have "used their anonymity to protect themselves".

While big banks have the resources, Arndt says, their sheer size can make cyber security difficult to manage.

At the same time, smaller firms may have tended to under-invest, Arndt explains, and are typically less security-savvy, meaning that they would "most likely struggle to deal with a very sophisticated attacker".

Equally, being a boutique asset manager doesn't necessarily mean 'boutique' levels of assets under management, so it may be somewhat naïve for boutiques to feel protected by their theoretical size.

Arndt says: "Attackers are also aware that boutiques will have less resource for IT security so may have weaker controls, but at the same time could realise similar benefits to larger institutions as their books can be comparable."

Disregarding the size of the firm altogether, Joyce suggests that instead, an asset manager's level of cyber risk depends on the information they have. And on the type of attacker.

"If a hacker knows a particular institutional investor is handling funds for an unpopular politician or for very high-net worth individuals, that investor may become a target."

What matters most are what Joyce calls the "crown jewels", which include monetary assets, data, politically sensitive information and intellectual property.

"What marks them out as a target is who their clients are," says Joyce.

"And who their clients are will dictate what the crown jewels are."

With the threat seemingly hanging over institutions of all sizes, and with the likes of regulatory compliance and technology upgrades taking up budget elsewhere, many institutions are outsourcing their cyber security initiatives.

According to Joyce, there are more and more providers offering this kind of service and, particularly for firms too small to have the necessary in-house expertise, outsourcing can be the only way to access the tools for detecting unusual goings on in a network.

Joyce comments: "With the breadth of attacks and the ever-changing landscape, it is a constant learning process for those responsible for security."

Pompon is more reserved, however, saying: "It depends on what is outsourced, to whom, and how it is managed."

He explains: “Outsourcing security is not something to be done without careful consideration and strategic vision. But, if done well, you could be more secure.

Expanding on this, and finding a middle ground, of sorts, Arndt agrees that outsourcing can be a bonus if done well, but specifies that risk management and security governance processes should remain in-house, “to ensure that the board can understand their risk appetite and make decisions … influenced by management, not produced by a third party who may not have the business context of the firm.”

That said, having the correct technology in place is only part of the battle.

Joyce names three crucial aspects of cyber security: process, systems and people.

“Even if a company is outsourcing its IT, if it hasn’t trained its people, and it doesn’t have robust processes in place, it’s going to be embarrassed at some point.”

He hones in on the issue of ‘social engineering’, exploiting human nature to get employees to click on a link or open an email attachment, share information through social media, or bypass a verification system.

Joyce says: “Human beings are trusting and curious, so firms have to train their staff to recognise dodgy emails or scams because if they don’t, they’ve got a weak spot.”

“You can make your systems fairly secure, but humans are a lot more difficult to programme.”

Equally, this kind of awareness has to stretch to dealing with counterparties, to transfer of information between departments and branches, and even when reporting to regulators. The fewer copies of a data set there are, the better. If it is leaving the organisation, then particular caution is required.

Arndt says: “Any transfer of data represents an additional risk that needs to be managed.”

“The key is to be able to identify your key data flows and apply the appropriate controls.”

In the case of regulatory reporting, however, these stringent controls should, technically, extend to an assessment of the security of the regulating body, rather than making any assumptions about their ability to handle sensitive data.

There is concern over whether the regulators even understand the severity of the threats at hand.

Cyber security regulation itself is often criticised for not being stringent enough, failing to put enough focus on data protection and access controls.

While Pompon calls data regulation “a real patchwork, even within sovereign borders”, Arndt argues that it is “not specific enough to support a holistic approach to data protection”.

“Firms should be looking beyond regulatory requirements to implement their own innovative cyber defences. Protection set out in regulation should be treated as a minimum level of prevention”

Regulation can often be too reactive, Pompon says, placing too much emphasis on “fighting the last war”. Organisations should be looking beyond regulatory requirements to implement their own innovative cyber defences, he says.

Joyce agrees that protection set out in regulation should be treated as a minimum level of prevention. He stresses: “If institutions just did the minimum to protect data, I don’t think they would be secure enough.”

Regulations may not quite cut it, and there may be work to do in training staff to distrust, but the technology is there to tackle cyber crime, if banks want to implement it. As long as they don’t let their guard down or fall foul of a new trick, they should be able to keep the baddies at bay—at least for now. **AST**

Industry

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Insight

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Ahead of the curve

At a city breakfast, asset managers met with Broadridge's Peter Morris to discuss the challenges of the modern market, and the ways in which technology providers can help

Broadridge recently hosted a breakfast in Central London, bringing together securities services firm Northern Trust and 10 representatives from seven global asset management firms to discuss several themes that are affecting the management of payments and finance for buy-side institutions. The conversation centred around six disruptive forces that are driving operational changes:

Globalisation

The increasingly global nature of both buy- and sell-side firms is driving many organisations towards the centralisation of their accounting and processing into one function—either geographically or with a centralised process that is distributed globally.

Within the buy-side, the drive for return is leading firms to seek alpha everywhere, however with their cost base rising, this does not bode well when the markets take a downturn.

"Firms are trying to move towards fixed cost models in preparation for when the market changes direction," observed one participant.

Another reported that asset managers are expanding into new regions with feet on the ground, which is a costly approach.

Many are using asset servicing firms for their expertise and ability to scale, opting for outsourcing rather than implementing best of breed.

Data and control

With control and knowledge of the business, data can become a revenue generator and not just a cost saver.

On the product side, data helps the firm identify how it can add value to a relationship, making useful suggestions to the sales side that it might not otherwise have picked up on. One CFO noted that firms can lose track of the non-US dollar investments they have, so while the value of their assets may be increasing, they are at risk from currency volatility. Looking at data globally can allow the finance function to predict and manage these variables more effectively.

Regulation

Regulators are no longer interested in firms 'doing their best', but are laying down the expected standards for banks and asset managers. The level of pressure and detail is only going to go up; it is a global phenomenon.

For all of the data submitted to the regulators, many participants expressed severe doubts as to its use. The scale of information was seen to be too great for authorities to process. However, the need for the information stemmed from a point during the credit crisis when the regulators were described as 'flying blind'.

Now, they demand the industry provide data and information so that they can examine events, even if they cannot process all of the information at the moment.

The UK Financial Conduct Authority (FCA) is building a system that will proactively monitor market abuse, making forensics a part of the regulator's day job. That level of analysis will extend to traders—the Market Abuse Directive obliges firms to monitor and then report abuse. The real change that regulators want to instil is cultural, with ethics being upfront.

Attendees questioned where they were in the process to achieve that. "We aren't winning the game but we are trying to keep the score down," said one. "We now need to connect the dots up and get data to the front desk where it can be used."

Under the European Market Infrastructure Regulation (EMIR), the buy side pushed reporting to the sell side where possible, but under the Markets in Financial Instruments Directive (MiFID) II, the obligation is not deferrable and they now have to perform their

own reporting, creating a new set of costs and challenges. Many participants agreed it would be welcome if the FCA looked across all regulations and took all necessary data, instead of requiring reporting in silos, which increases complexity where different regulatory regimes are asking for the same information but often in different formats.

Being prepared

Getting a handle on the financial impact of regulation, from direct operational compliance costs to the extent that investors are being better served and protected, was agreed to be valuable. Transparency is driven by stakeholders as well as regulators, as any restriction around the basis of a charge is moved down the value chain, and capacity to cut costs is reduced. As the balance of power shifts to the underlying investor, the old days of simply increasing fees to compensate for higher costs is no longer tolerable.

In the UK, the separation of fees and inducements that has come about under the Retail Distribution Review put the market ahead of Europe, but also addressed the looming advice gap. A swathe of advisors providing limited value could potentially be axed on the continent once fees were exposed. Now, the client-facing technology side of the business is predicted to expand to fill that gap, offering advice and guidance as a self-service option.

The FCA's exercise in gathering data from asset managers was seen as exploratory—a way to understand how fees are constructed, such as whether they are reflective of the strategy or following an index. Ultimately, there could be a considerable database to benchmark firms against their peers, which will be good for some and bad for others.

Drivers for change

A change in appetite was observed in the way that firms approached technology. While three years ago the interest in hosted systems was about 12 percent of Broadridge's technology pipeline, now it is up to 65 percent, as firms are looking for partners that can host the infrastructure as well as the applications. Hosting, data protection and cyber security are increasingly important parts of the discussion.

Within the buy side, one challenge has been transparency of profitability on an internal basis, as well as the capacity to manage cost. This is a major concern, given the rising outlay on regulation.

All of this is driving the quest for better data. Having a global view allows a firm, buy-side or sell-side, to see its relationship with clients, assess their point of view, their value and their effective fee rates. Often relationship managers will look at the economic profit of their own book and rest on their laurels, but now management can compare at a team level or a regional level. "There is no place to hide," said one participant.

Ownership and outsourcing

Asset owners are beginning to behave more like asset managers, in the sense of looking at data around the investment rather than managing money. Asset owners do not have their own infrastructure but are increasingly looking for data to achieve visibility on their costs.

Their interest in the asset allocation, strategies, liquidity management, collateral infrastructure and governance over the investment lifecycle is increasing and requires more frequent reporting. Asset managers are keen to address the visibility around cost and communicate more effectively with the asset owners.

A key disclosure to end investors is that of broker costs. While unbundling of costs for execution and research has become increasingly prevalent in equity markets, transaction cost analysis is less common, but requested more frequently, in fixed income and foreign exchange (FX). Total cost of ownership calculations were seen as more of a 'free for all', while fund, custody and depository fees, along with FX, are among the host of costs to be considered.

Transparency is being demanded, and while alternative investments are sought out particularly by sovereign wealth funds, having a book of information across all asset classes is becoming imperative.

If there is some $65 trillion available to be invested in the world, around $5 to $10 trillion is said to be going into alternatives. Participants agreed that a common theme across firms is the need for a robust data structure that is fit for purpose and secure, as well as getting data to the point of use. By outsourcing this to a specialist, the client is able to focus on the analytics side of data and not on pulling it together or hosting it.

Spend on cyber security is on the rise exponentially, and third-party providers offer an opportunity to neutralise that expense for their clients. Hosting of operations and technology is in demand, but getting the balance right between the two can be a challenge. One participant related that in a recent deal with a tier-one player the data and security aspects took nearly 12 months to resolve.

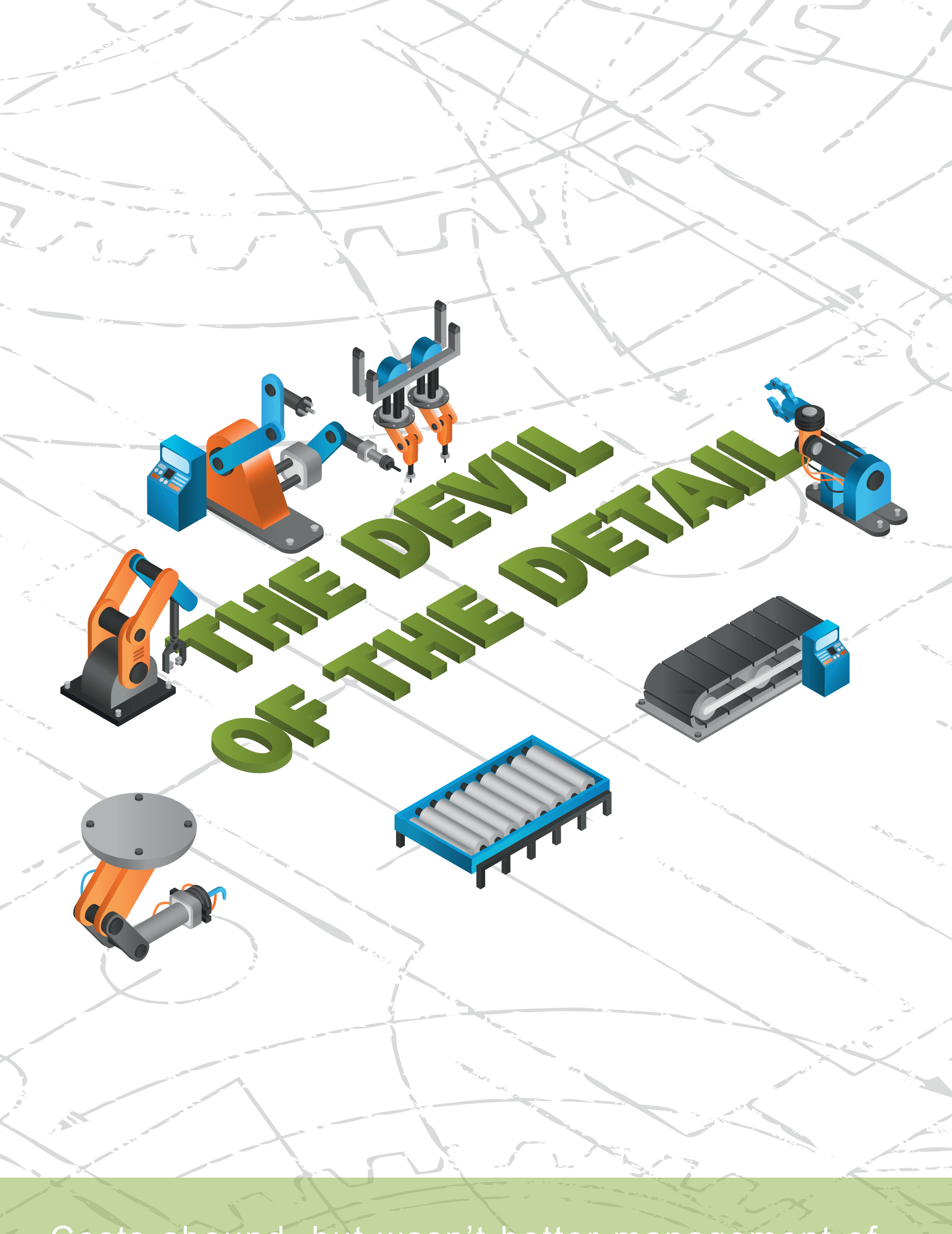
The buy side has been quick to outsource parts of its business, far more so than the sell side, which has typically been less willing to mutualise services. However, that reluctance has faded as commercial reality has brought into focus areas that lack a competitive edge.

Within the asset management industry, chief financial officers face a host of complex challenges, including the need to reduce costs and build efficiencies in the cost base, generate better metrics, and manage risk amid a tightening regulatory environment. At the same time, they must strive to remain competitive by differentiating themselves with enhanced service and innovative solutions. While these challenges remain, there are common areas where firms can gain a competitive edge—namely through scale and operational efficiency. We anticipate these trends to continue well into the foreseeable future. **AST**

Peter Morris
General manager for revenue and expense management, EMEA
Broadridge

Collateral

Management



Costs abound, but wasn't better management of collateral supposed to be the ideal?

Drew Nicol reports

Collateral management in the new, highly-regulated environment requires optimising inventory allocation, often across multiple markets, while managing and stimulating collateral velocity in order to maintain market liquidity through a commitment to rehypothecation.

The only feasible way to achieve all of this is through a technological solution that allows for efficient asset distribution from a pooled collateral portfolio, which can also optimise the majority of everyday tasks in order to free up teams' time to focus on disputes and data anomalies.

But first, the regulations. "The main focus [of collateral management] has had to be on regulation with European supervisory authorities publishing the final draft technical standards on margin requirements for non-centrally cleared OTC derivatives on 8 March 2016," explains Helen Nicol, product director for collateral, clearing and optimisation at Lombard Risk. "Those institutions that are impacted by the 1 September 2016 deadline have been reviewing the impact of the final draft in order to interpret the rulings and any global variances with the US and Asian regulations."

"We have also seen interest from organisations looking to move non-OTC business lines onto a central clearing platform where possible," Nicol says.

Basel III's capital rules such as the liquidity coverage ratio and the supplementary coverage ratio are disincentivising heavy balance sheets, causing large broker-dealers to rethink how they use collateral to optimise their way around such capital impacts.

Balance sheet efficiency often involves engaging in upgrade trades in the hunt for balance sheet-friendly, high-quality liquid assets (HQLAs), instead of holding on to hot potatoes such as less liquid equities or dormant cash.

The shift to favouring non-cash over cash collateral is a direct result of Basel III capital requirements and a well established trend that has been gaining momentum in recent years.

The April 2016 International Securities Lending Association (ISLA) market report, which used

Liquidity coverage ratio

Basel III's liquidity coverage ratio (LCR) requires dealers to hold enough liquid assets to cover liquidity outflows over a 30-day period. Cash-settled derivatives positions due within 30 days, including futures, options and equity swaps, form part of the outflows calculation. Given the LCR has a 100-percent minimum, this forces banks to find more liquid assets to plug the gap, constraining new business.

Shares held to hedge these positions are a level 2B asset in the LCR, subject to a minimum 50-percent haircut under the ratio.

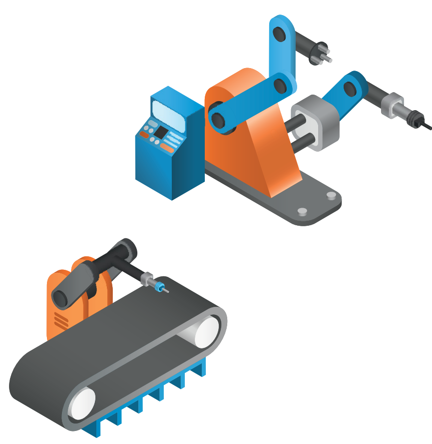
The US implementation timeline of LCR requires that banks must meet 90 percent of the standard in 2016 and 100 percent in 2017. This is a full two years ahead of the international schedule, which does not require full compliance until 2019.

As a result, US banks are already making changes to manage the LCR, whereas their foreign counterparts may not yet be.

"Basel III's capital rules such as the liquidity coverage ratio and the supplementary coverage ratio are disincentivising heavy balance sheets"

data from all major industry data providers, cited a 60/40 split, globally, in favour of non-cash.

It is worth noting that ISLA's report also showed that the transition to non-cash has slowed in the past six months, levelling out at roughly 60 percent. By way of explanation for this, ISLA's report said: "As on-loan balances were reduced ahead of the year-end, it would appear that cash collateral loans were returned first."



"This is perhaps explained by noting that many non-cash collateralised loans (especially those involving HQLAs) are likely to be term liquidity coverage ratio-driven transactions which borrowers would likely prefer to retain."

The report also highlighted regulatory hurdles still to be overcome, including the US Securities and Exchange Commission's Rule 15c3-3, which bans the use of equities as collateral for certain beneficial owners, as a likely cause of the plateau.

Despite the slowdown, many industry figures predict the ratio will continue to move in favour of non-cash, in turn pointing to persistently low interest rates as an inevitable driver behind the latest conference mantra that 'cash is trash'. Other regulatory-driven trends in the collateral management space include a sharp growth in the demand for term trades and collateral upgrade trades, both of which are driven by a need for greater balance sheet efficiency and can be solved by technological means.

Jim Malgieri, head of the collateral management and segregation businesses for BNY Mellon's markets group, sets out the drawback of short-term loans, stating: "Any funding or lending trade versus cash that has a term of less than 30 days has a 100 percent capital charge. Participants must lock up 100 percent of the value of the trade in HQLAs or leave cash on the books."

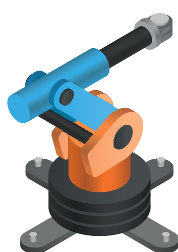
Therefore, in order to remain compliant, a participant must adapt to favour term trades of more than 30 days or exchange equities for HQLAs, usually in the form of government bonds. For borrowers, these trends represent a need to optimise the allocation of diverse collateral buckets, while lenders are more focused on their programme's collateral eligibility profile, acceptable haircuts and concentration limits.

Breaking down barriers

One crucial adaptation to a collateral management infrastructure is the phasing out of separate silos in favour of a single holistic collateral pool.

However, taking such a radical step away from traditional storage methods can be, in a relative sense, more financially draining for top-tier entities than their smaller, nimbler counterparts that may not have legacy systems to update.

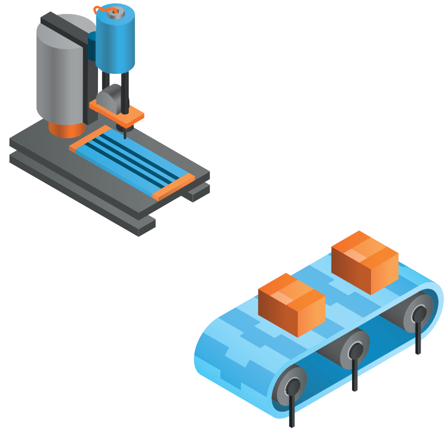
Ted Allen, vice president of capital markets collateral at FIS, says: "In larger banks, the silos that have existed for many years are much harder to break down."



"At the same time, big banks are the ones hardest hit by regulation and that's drawing away a lot of their technology investment budget. The most forward facing firms are looking at adopting a single pooled view of their assets and allocating them globally in the most efficient manner possible."

Allen adds: "We at FIS often speak to three or four different departments within large banks that all have their own siloed inventory but are not able to mobilise themselves enough to solve their mutual issues in a holistic manner."

"On the other hand, in the second tier of the industry's participants, such as regional banks, pension funds and insurance companies, effective collateral pooling is already a reality."



"That's looking at derivatives, repo, securities lending, as well as treasury requirements." Malgieri reinforces this analysis, stating: "The large broker-dealers have grown up with silos."

"If you go back five or six years, fixed income and equity desks were separate desks and corporate treasury wasn't part of the funding scheme. That's all changed."

Go go gadget

An advantage that any vendor will boast about is automation, as both a time-saving and long-term cost saving method for both sides of the trade. "The volume of business that needs to be collateralised is growing and therefore collateral velocity is also increasing, and this turn is driving a trend towards greater automation," explains Allen. "There is a heavy focus on achieving straight-through processing wherever possible. Firms are moving to an exception-based process, meaning collateral operations teams are only involved in exceptions and resolving disputes—everything else is automated."

"Using platforms such as [FIS's] Apex Collateral means that, as long as the data validation checks are passed, the entire margin call process can be hands-free. The volume of margin calls is expected to increase five-fold, but firms aren't going to hire five times as many staff. In order to adapt to the greater level of volume firms must adapt their processes through automation."

Build it and they will come

Once an entity sees that its technology infrastructure is no longer fit for purpose, the next question is inevitably whether the new model should be built in-house or come from a vendor. This debate has been raging for longer than anyone can remember, but, for collateral management at least, the end might be in sight.

Thanks to the speed of regulatory requirements in development and the looming fear of yet more to come, the cost of implementation and up-keep when every shift of the goalposts

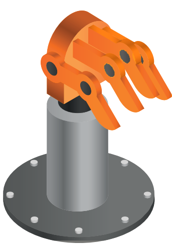
Supplementary leverage ratio

The supplementary leverage ratio (SLR) is intended to be a 'backstop' to the risk-weighted capital requirements and limit the amount of leverage that a bank may incur using a blunt, non-risk-based measure. Because the SLR is not risk-sensitive, a bank must hold the same amount of capital against low risk assets (such as cash and US treasuries) as higher risk assets (such as corporate equities and securitisations). Unlike other leverage requirements, the SLR includes both on- and off-balance sheet exposures in a 'total leverage exposure'.

potentially signals a massive technological overhaul is simply too much for most to bear.

Allen comments: “There are always firms that want to build in-house because they think they know their own needs best but that is less and less the case. It’s increasingly expensive to build these systems and also the maintenance costs are only going up when you consider all the new regulatory requirements that currently exist or may exist in the next few years.”

“Apex has clients who are taking this opportunity to revisit their whole collateral management infrastructure and replace it with a single platform that covers them across the entire securities financing spectrum. Others are solving the specific problem of optimisation by implementing our optimisation model on top of their separate third-party or in-house solution.”



“For collateral operations, up to 90 percent of firms use a vendor platform,” Allen added.

Malgieri, as head of BNY Mellon’s triparty agent that primarily services lenders, feels these costs acutely. “As a business manager, technology budgets tend not to go down, only up. You must constantly re-invest in your business, especially one like collateral management, which is so technology laden.”

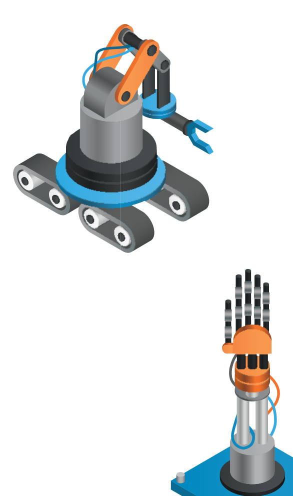
“These are all technology driven developments in the industry and it’s the triparty agents that have to come up with these solutions. With lender collateral requirements now this complex, efficient technology solutions are the only way it can be done on the scale the market needs,” Malgieri says.

Unlike challenges around pooling collateral, entities big and small are all affected by steep costs to remain compliant with regulations. Nicol offers a blunt summary, stating: “There are no winners in this area. Regulation carries cost implications regardless of whether you have legacy platforms or are a new entrant.”

“Legacy systems will need to be upgraded to incorporate the new parameters or external workarounds reviewed from both a technical and business perspective.”

She adds: “Newer entrants have the benefit of structuring platforms to manage both legacy and regulatory functions as part of the initial purchase and implementation process and can therefore often streamline the requirements but may face a greater challenge in moving from the current, often spreadsheet-based process to a new platform within the timeframes. As a result, we are seeing a growth in interest from the market as they look for viable options.”

There might be few winners here, other than the vendors, as the cynics would say, but that might be missing the point. After all, isn’t better management of collateral the ideal? Regulations might be forcing hands, but don’t idle ones do the devil’s work? Sooner or later, everyone must embrace better collateral management, whatever the cost, or be left behind. **AST**



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Messaging

ASSETSERVICINGTIMES

Standards

Global financial institutions will have to work together as one if they want to get the best from ISO 20022, says SWIFT's Stephen Lindsay

What is the significance of the ISO 20022 harmonisation charter? How would you rate the achievement?

Harmonisation is vital if ISO 20022 is to achieve its promise of reducing industry costs and improving straight-through processing. Without harmonisation of financial market infrastructure (FMI) implementations, global banks will be confronted with a plethora of different versions and interpretations of the standard, which will be complex and costly to manage. While we recognise that there will be necessary differences between implementations to adapt to local conditions, we seek to eliminate the unnecessary differences, which bring no business benefit, only cost and risk.

The harmonisation charter is designed to highlight this issue and build consensus around the need to address it. We already have 14 major FMIs that have endorsed the charter with more to come. We are also attracting support from the global banks that will be the immediate beneficiaries.

Good progress is also being made on the necessary and time-consuming business of 'operationalising' the principles set out the charter. In addition, we are about to launch a set of new features for the MyStandards platform that will allow FMIs to publish details of their ISO 20022 implementations, their timelines and adherence to global market practice, and we have worked with a number of charter signatories to ensure that their data will be available from day one.

We are also working to formalise global market practice in several business domains—contributing to existing groups where they are already operational, such as the ISO 20022 Real-time Payments Group, and working with the Payments Market Practice Group, Securities Market Practice Group, and other relevant stakeholders to establish new working groups, for example to address full ISO 20022 high-value payments requirements.

Finally, we are working in our own organisation to ensure that FMIs that implement ISO 20022 on the SWIFT platform, along with their communities, can implement the principles of the charter with ease, so we will provide help with standards upgrades, market practice validation and so on.

Harmonisation is a continuous process—we will never be 'finished', but what we hope, and

are working towards, is that harmonisation will become a reflex behaviour for implementers, and that harmonisation principles will be institutionalised in the structures of the industry.

How have you overcome barriers to cross-border messaging standards?

For most cross-border messaging businesses such as correspondent banking, MT remains the dominant standard, and we expect this to continue. In other cross-border areas, notably investment funds, ISO 20022 is slowly gaining good traction and we see renewed emphasis being put on the new functionality and business benefits that can be realised using ISO 20022.

What other developments have you seen in the last six months or so?

We have seen several interesting developments emerge on the ISO 20022 front. The Federal Reserve and The Clearing House have made some very positive statements about the adoption of ISO 20022 in the US payments market. The European Central Bank has issued a major consultation on the future of the Target system, which signals a continuing commitment to ISO 20022 for high-value payments. The European Payments Council is also making great progress formalising rules and market practice for the use of ISO 20022 for instant payments in Europe.

What kind of trends have you seen in ISO 20022 uptake?

Increasingly, for FMIs, ISO 20022 is the default choice for new or refreshed services. We also see that global market practice and harmonisation is much more on the agenda than it was previously. FMIs want to benefit from harmonisation to lower barriers to participation for customers that have already implemented ISO 20022 in other markets.

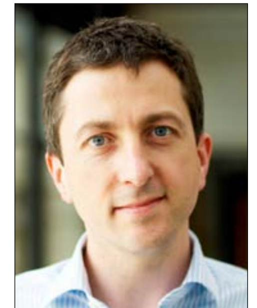
Where do you expect the standard to go from here?

ISO 20022 was designed from the outset to be a flexible standard, not dependent on any particular technology, and in some parts of its design not dependent on a messaging paradigm either. Much of ISO 20022 is concerned with capturing and defining business concepts and terms in a technology neutral way.

As new technologies emerge and are taken up by the industry, such as application programming interfaces and, increasingly, blockchain, we anticipate that there will be a role for ISO 20022, not the full standard in its current form, but as a source of business concepts and definitions. After all, irrespective of the technology, when any industry solution is to be deployed at scale, it will be important that all stakeholders agree on the meaning of any data that is shared, and the roles and responsibilities of the various actors involved in the business.

ISO 20022 is rich with this kind of information, which can be re-used, first to avoid 'reinventing the wheel', and second to facilitate end-to-end business processes that might combine a number of automation mechanisms between which data needs to flow seamlessly, without truncation or misinterpretation. **AST**

> "Irrespective of the technology, when any industry solution is to be deployed at scale, it will be important that all stakeholders agree on the meaning of any data that is shared"



Stephen Lindsay
Head of standards
SWIFT

Blockchain

ASSETSERVICINGTIMES

Technology

Block by Blockchain

No longer confounded by crypto-currency, fintechs, start-ups and institutions are stripping bitcoin back to the underlying ledger technology to see what they can build from the ground up

The hype of bitcoin appears to have blown over. When one of bitcoin's founding fathers, Mike Hearn, publicly washed his hands of the currency in early 2016, he described a crypto-community at civil war and mining pools that were unsustainable, ultimately declaring the whole "experiment" a failure.

That's not to say, though, that the financial industry has turned its back on crypto-currency altogether. In financial services in particular, attention has turned to the underlying technology and perpetual enigma that is blockchain itself. In the conference circuit of 2015, barely a moment went by without some hyperbole of how blockchain holds the possibility to turn the industry upside down, whether it's bolstering security, slashing settlement times or eliminating back-office processes all together.

In 2016, however, we have no time for hypotheticals. In Q1 alone the industry saw the Depository Trust & Clearing Corporation (DTCC) partner up with Digital Asset to develop distributed ledger technology for improving repo clearing, while Nasdaq completed the first private securities issuance using blockchain, and GFT launched a prototype app for commodities using the technology. R3 hailed the success of tests on five new cloud-based blockchain platforms, with 40 major financial institutions taking part, and ICAP completed a proof of technology test for blockchain in its post-trade risk and information division.

Institutions around the world are starting to figure out how blockchain can work for them. Primarily, the focus has been on utilising the decentralised database that blockchain provides, and the possibility for multiple parties to access to the same information at the same time, with any changes tracked and time-stamped.

Robert Palatnick, chief technology architect at DTCC, notes: "The best applications [of blockchain] are those where this specific benefit solves existing business challenges. Applications that have multiple parties involved in a transaction, or where multiple parties need to see changes to information at the same time, are a good starting point."

Similarly, Diana Chan, CEO of Euro CCP, hails the "golden source" of transaction data, noting that the technology could be best used "where it is important to capture and maintain the complete history of ownership and transfer of a financial asset."

A single source of data could effectively eliminate several steps of reconciliations and manual checks and processes that make financial transactions so lengthy.

"Blockchain technology could provide a technological quantum leap that allows institutions to cleanly replace a lot of the legacy processes"

According to Dave Pearce, a spokesman for the NXT blockchain platform and founding member of the NXT Foundation, blockchain technology is taking the 'central core' of crypto currency, originally intended only to record financial applications, and applying it to both financial and non-financial applications, expanding the potential markets for use of blockchain and crypto-currency technology.

Pearce says: "Blockchain technology could provide a technological quantum leap that allows institutions to cleanly replace a lot of the legacy processes that have built up over the years."

He points out that, historically, financial institutions have been all about building up and maintaining trust in the system. "Up until now," Pearce says, "that has required a lot of

verification, both by humans and later on by computers. A blockchain system has these verification mechanisms built into its very core."

In the big institutions the approach is perhaps a bit more conservative, however they also have the resources at hand to explore the possibilities themselves. Philippe Ruault, head of clearing and custody solutions at BNP Paribas Securities Services, suggests that although they're "still quite exploratory", the bank welcomes the proof-of-concept innovations.

He says: "There is good scope in transfer of assets, but there are also topics like voting, know-your-client, and securities financing concepts that we would like to explore."

"We are identifying areas where processes are not fully automated, that are very costly or very manual."

On the other hand, Christian Sjöberg, head of clearinghouse SIX Securities Services, says that while he welcomes the possibility for a single source of data, the industry should perhaps not be getting too ahead of itself.

"There are many challenges to overcome, such as capacity, legal frameworks, and most importantly, the use of blockchain will require industry-wide coordination," he says. "Otherwise, it will just create the same situation as today where we have multiple new solutions with different sets of standards."

Indeed, in some of the complex auxiliary sectors of the financial sector, there is still some scepticism over just how useful blockchain technology is likely to be.

In securities financing, for example, the use case of having a single source of shared information, rather than each party maintaining their own, seems fairly clear. Information will not become outdated and reports are automated.

However, as Sjöberg points out, the majority of blockchain testing in securities financing has so far been done in a "reasonably simple environment, without investigating the full impact such an approach to securities financing may have on the underlying processes".

This is a new technology being applied to a form of financing that has been around for years. One concern is that, as the technology develops over time, any solutions implemented now will be rendered practically useless within just a few years.

Palatnick explains: "Any solutions that are implemented today may need to be completely changed in the future. Additionally, core components of a loan transaction, for example, such as smart contract terms and the security model, are all new and have not been proven over any duration of time."

He notes that, while there may be no noticeable impact on simple buy-sell transactions with a single settlement, anything more complex could pose a problem, potentially causing additional, and unnecessary, risk.

Palatnick says: "For long duration transactions, such as any type of loan where the issue is less about the start of the transaction—the lending—and much more about the end of the transaction—the lender getting their

securities back plus interest—the implications of depending on a technology that has had a shorter lifespan than most existing loans add to the risk of the transaction."

According to Chan, blockchain could be best kept out of the actual lending and repayment process, making itself more useful in the accurate tracking of collateral.

"If the distributed ledger containing information about the collateral available and its location is open to view to the relevant parties, then collateral mobilisation and use could be made more efficient," she says. "This might not help a collateral giver recovering his assets in the event of the bankruptcy of a collateral taker, but at least the collateral could be traced to where it has ended up."

Causing similarly mixed feelings is the issue of clearing and settlement using blockchain. In theory, automatic reconciliations and immediate data updates mean that settling a transaction, which can currently take weeks or months, could be much quicker—even instant.

Bas Wisselink, a founder of the NXT Foundation, sticks to the practicalities, however, saying: "Blockchain is a technological thing. There is, of course, a legal side to clearing and settlement that technology cannot solve. But the operations side—the actual clearing—that is the thing that blockchain provides an actual technical answer to."

He specifies: "There has never been a way for trades to be completed unsupervised and securely, and blockchain has finally managed to solve this problem. That's a biggie."

Ruault expresses similarly tentative optimism, suggesting that the technology could work in an integrated clearing and settlement model.

He says: "When you have the issuance of the instrument, the trading, the settlement and the custody in an integrated chain, it could be an efficient way of working."

"Having said that, it will be have to be focused on very specific instruments to be compatible with existing legal and regulatory aspects."

With such regulatory annoyances affecting every nook and cranny of financial services, there are differing opinions on whether they really have a place in new innovations.

While Wisselink and Pearce suggest that blockchain is at risk of being stifled by regulation before it has had a chance to expand, Ruault suggests that regulators are taking a back seat, allowing for innovation and development, and only imposing rules if and when blockchain is practically implemented.

Sjöberg, however, takes a slightly alternative view, suggesting that, although differing by jurisdiction, it will be the existing rules applied to settlement cycles will stop blockchain making any meaningful difference.

He says that, realistically, blockchain will take off in markets such as Asia, Australia and the Middle East "where one infrastructure group can control the entire process", as opposed to markets in Europe, which have a more complex infrastructure of central securities depositories, central counterparties and different currencies.

In Europe and the US, he says, T+2 and T+3 settlement cycles are not a result of lacklustre technology. "Rather, it's more a question of set-up practices as well as, in certain circumstances, legislation that needs to be changed. Practices related to funding, for example, may be crucial."

"If there are economies to be had or profits to be made, or a revolutionary way of doing business that fits within ordinary parameters but still utilises blockchain, they we will see those products starting to crop up"

That said, the mere suggestion of T+0 settlement casts an uneasy shadow over an entire industry. If counterparties can keep accurate and transparent records and settle instantly, with no room for default, there is a question of whether, at some point, blockchain could eliminate the need for CCPs entirely.

Currently, the consensus seems to be that the two can co-exist. As CEO of such a CCP, Chan specifies: "Blockchain is a technology and CCPs are service providers. It is possible for CCPs to use a blockchain format of payment in settlement, for example."

And a partnership like this could serve to make the market more efficient. Sjöberg says: "Blockchain may help with faster settlement, but a CCP can support with providing a safe legal framework, credit risk management for both short and long positions, and netting of transactions in order to reduce the number of settlements."

Ruault, however, is less certain about the future of CCPs, conceding: "It's a big question, and I'm still not sure of the exact answer."

"If we move to a T+0 process you don't get the settlement risk, but using blockchain you also don't get the netting abilities and anonymity that CCPs provide."

With initiatives cropping up like spring daffodils, it's clear that although blockchain's usefulness is no longer in question, specific applications are still very much up for debate.

What is clear, however, is that in this industry nothing is likely to happen very fast.

Citing the example of the effect video tapes had on cinemas, Wisselink argues that such disruption could mean big things for financial services, saying: "Due to increased security and lowering of cost, there may actually be an influx of consumers."

Pearce adds to this, noting that institutions are starting to look seriously at blockchain, trying to apply it to their own areas of expertise. "If there are economies to be had or profits to be made, or a revolutionary way of doing business that fits within ordinary parameters but still utilises blockchain, they we will see those products starting to crop up."

However, Pearce also notes the intrinsic conservatism of the industry, adding: "It is going to take a while for blockchain to be adopted by the entire financial world, if that ever actually happens."

It may still not be clear exactly where the industry will end up, but with technology evolving so rapidly, it is just as crucial for institutions to get involved in the experiment, or risk being left behind.

"Providers are bringing more concrete projects and focused instruments and processes to the market," Ruault says.

"It's important to be part of the conversation and to have that ongoing initiative." **AST**

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Corporate

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Actions

Mind the value gap

Value is going amiss in the world of corporate actions, but SCORPEO has the innovation to stop the dollars from slipping away. Executives Chris Barrow and Mark Proffitt explain how

How are investors losing value through corporate actions?

Chris Barrow: Corporate actions are a notoriously difficult area where big losses are not uncommon. Various technology initiatives have emerged over recent years to address some of the problems, especially to reduce processing errors and improve data quality. However, SCORPEO addresses a quite different problem. We focus exclusively on analysing and capturing the 'economic value' embedded within corporate actions. The primary function of our technology platform is to highlight suboptimal corporate action elections and automatically capture the intrinsic value and to increase fund performance and investor returns.

There are about two million corporate actions every year and many of these require an election to be made, for example, scrips offering cash or stock, rights issues, tenders and stock buy-backs. These decisions can have significant economic impact on the fund performance, but making the optimal decision every time is not easy. A lot of value is missed in the asset management process through economically suboptimal choices being processed in corporate actions elections. This is, of course, not deliberate. There is a lot of complex documentation to read and a massive processing effort involved in making these decisions within the required deadlines, and sometimes other variables such as foreign exchange, domicile, and regulation make it even more complicated.

Traditionally, this hasn't been a huge area of focus as it's often considered a peripheral issue to the main investment activity. We have built an innovative data and technology solution to make it easy for asset owners and asset managers to not only understand where and how much value is missed but also how they can use our technology platform to catch it. Asset managers do not have this

technology or might not have the tools to extract the optimal value and, quite frankly, we're not talking about huge numbers in terms of fund performance, we're talking about 10 to 50 basis points across the portfolio. So the incentive isn't always there either, yet the value is available to be captured so why not do so? At an industry level it obviously amounts to vast sums of money.

Mark Proffitt: The numbers of corporate actions are increasing, and so is the complexity, so often an asset manager will select the default election. If we take the example of UK scrip issues, where the options are cash or stock, on the deadline of that election one option will be worth more than the other economically, so it will be more beneficial for the fund to receive the option with the most value. For UK scrips, the default is the cash option but it is not unusual that by the market election deadline, the stock would be the optimal economic option.

How does this translate into actual monetary worth?

Barrow: To stick with the same example, in 2015, in UK scrips alone, $453 million was missed. There are no winners or losers here, it's just value that was not realised. Over the last five years, that value amounts to $1.7 billion in the UK. It was $1.37 billion in France and $1.4 billion in Spain. So it is significant sums.

Proffitt: This is intrinsic value within the portfolio holdings, which hasn't always been picked up in the past. The sheer volume of corporate actions means the default option tends to be chosen, meaning the intrinsic value that's available is missed. By outsourcing this and automating the process, we have found a way to add that value for investment managers and beneficial owners.

What should asset managers be doing to make corporate actions work harder for investors? And are they willing to do it?

Barrow: We speak to a lot of asset managers who say the number of corporate actions elections they're dealing with is overwhelming. To deal with it more comprehensively, they would have to dedicate resources, time, expertise and technology development. There are a lot of financial technology companies emerging that have highlighted a tricky operational process or decision-making function and found an enabling tech solution to benefit the user and/or the customer, and that's what we've done for corporate actions optimisation.

Asset managers have been very open to using our services, whether it's SCORPEO Value Analysis, SCORPEO Analytics or the SCORPEO Value Capture Programme. Investment managers and indeed their clients want to understand the areas where they are missing value and remedy the issue where possible.

However, they are also looking for solutions to reduce costs and enhance performance without distracting from their core investment management activity, so a technology solution that runs in the background that they can trust to highlight any suboptimal corporate actions and optimise them, is proving to be a compelling proposition.

> "A lot of asset managers say the number of corporate actions elections they're dealing with is overwhelming. To deal with it more comprehensively, they would have to dedicate resources, time, expertise and technology development"

Chris Barrow
Global head of sales
SCORPEO

How does the technology work?

Barrow: Conceptually it's quite simple in that our technology tracks thousands of corporate actions, analyses the economically optimal election against the asset manager's decision and automates the processing of the optimal election to lock in the value for the client. But, like many of the best software solutions, it sounds easy but it has taken several years to develop.

The service is the SCORPEO Value Capture Programme and the proprietary tech platform that powers the programme is SCORPEO Harmonia. It steps in once the portfolio manager's election has been made but prior to the corporate action deadline. The platform tracks huge amounts of data across thousands of securities and multiple indices, including stock and cash values in relation to underlying securities and we have an analytics team taking in all the associated documentation that comes with a corporate action.

It processes all of that data, taking into account the election decisions and various corporate action deadlines, calculates the optimal election and optimises accordingly. The optimisation is achieved mitigating all operational risks and without adding market risk and this is fundamental to our technology platform. In a way it simply operates as a safety net, picking up any decisions that would otherwise have been economically suboptional, turning them into optimal decisions.

Proffitt: The technology has been in development for about five years and allows custodians to offer it as part of their own solution, but we can also deliver it directly to investment managers. The technology platform can be cloud-based so it is portable and very scalable. It also has to be robust and use a dependable data structure so we are also incorporating aspects of blockchain for ledger data. It must also be easy to use, so it is specifically designed to fit in with existing processes without causing any disruption to the client, whether that's an asset manager or global custodian, and however they decide to implement it.

It's also important to note that we are not an advisory function. The investment manager always has full autonomy over the decision, whether it's as simple as choosing cash or stock, or whether it's a more complex decision with three or more options. The tech programme simply monitors decisions and catches suboptimal choices, in a completely objective way.

Barrow: We offer a retrospective tool, SCORPEO Value Analysis, that allows us to analyse a client's portfolio and historic election data for a period of, for example, five years, and to generate a report to show exactly how much value was missed through corporate actions decisions.

Some asset managers are more active than others in managing these decisions but across all the analysis we have done, there has always been value missed on some scale.

Are there regulatory benefits to this kind of value analysis?

Barrow: If you look at what's going on across the industry in terms of what global regulators are

> "The investment manager always has full autonomy over the decision, whether it's as simple as choosing cash or stock, or whether it's a more complex decision with three or more options"

Mark Proffitt
Head of UK institutional sales
SCORPEO

aiming for and also what investor initiatives are focused on, you can clearly see where this fits in. The UK Financial Conduct Authority's (FCA) agenda in terms of transparency across the value chain is at the top of many to-do lists. We work quite closely with industry bodies such as the Pensions and Lifetime Savings Association and the Investment Association, which have similar costs and transparency agendas, and a lot of investment managers have their own initiatives to make sure underlying clients know the cost of managing portfolios and understand exactly how performance is generated.

There is an aspect of fiduciary responsibility in making good decisions, optimising returns for clients, and showing that you're not making decisions that disadvantage them. There is no specific regulation about making optimal decisions in corporate actions, but the overarching sentiment of the industry seems to be to drive greater transparency and to optimise the value available in a portfolio, so our services certainly help clients meet those requirements.

Proffitt: Equally, for pension funds and beneficial owners, anything that increases performance will be very interesting, even if the gains are marginal. Anything that can increase performance is positive for the beneficiaries and for reducing deficits.

Another thing to consider here is the investment management agreement (IMA), which is an institutional mandate between investors and their investment managers.

It is quite likely that optimising corporate actions decisions will be something that is covered in the IMA in the future, and something that managers should respond to.

I don't think it will become a legal obligation in itself. There are so many factors involved in how value is missed and how decisions can be optimised, and there are some restrictions on the tools investment managers have to do that. However, industry players are starting to recognise that these elements can add up and become quite significant, and investors should have a right to know whether their investment managers are optimising corporate actions decisions, and if so, how they are doing that. **AST**

“There is an aspect of fiduciary responsibility in making good decisions, optimising returns for clients and showing that you're not making decisions that disadvantage them”

Outsourcing

ASSETSERVICINGTIMES

Debate

Wall Street and Silicon Valley, for so long strangers passing on different sides of the road, now have a habit of bumping in to each other. Experts debate the arrival of big technology in specialised financial services.

Technology giants such as Microsoft are increasingly turning their attention to institutional fintech.

Are traditional service providers welcoming the competition, running scared, or looking at ways of adapting?

Peter Hazou, Microsoft: When we meet with executives across the financial services industry, at the top of minds are the plethora of challenges to their business model and what to do about them.

These include the need to modernise their infrastructure, the challenges of economics, new

fintech competitors, the necessity of legal and regulatory compliance, and the opportunity of how to get the most out of the assets they have.

Banks are beginning to use the evolving data processing and machine learning capabilities of the cloud to anticipate customer needs and customise products and services to fit them. These early adopters gain a competitive edge, enabling them to reap the data dividend that comes from a deeper understanding of what customers want now and in the future.

Rupert Booth, MYRIAD: To answer this question appropriately we must recognise that fintech is a vast and diverse mansion that hides some tiny niches.

A colossus such as Microsoft would no doubt pose a threat to the big players that supply sophisticated trading engines, market data feeds, back-office systems and customer relationship management platforms; it is able to replicate generic recipes, hire the necessary industry expertise in each genre and easily market the resulting product.

In these circumstances, such organisations may very well feel threatened and will no doubt look to the drawing board for inspiration to stay ahead.

We, the niche contingent, look at this potential concern from a position of specialisation, which may easily be bought but not easily developed. The required knowledge, specific reputation and clientele is hard-won, and the function too niche to be a worthwhile adventure for a huge multinational.

Innovation advantage and agility are extremely valuable attributes, largely the preserve of smaller companies that are so in tune with the peculiarities of their corners of the financial industry that it would be too challenging for a technology goliath to usurp their positions.

Explicit and extensive knowledge of where, and how, that niche function originated, where it is going and how to flex with it is so particular that waving around a vast balance sheet to replicate it would yield an

Peter Hazou
Director for business development, financial services
Microsoft

Rupert Booth
Business development consultant
MYRIAD

Bill Stone
CEO
SS&C Technologies

Philippe Ruault
Head of clearing and custody solutions
BNP Paribas Securities Services

Paul Stillabower
Global head of client experience and global client coverage
RBC I&TS

unsatisfactory result for all parties. Tesco can obliterate the town's old grocery store, but usurping the fresh game vendor is a much more troublesome proposition.

Bill Stone, SS&C Technologies: The financial technology space is known as a hotbed of innovation, with the ability to strip financial instruments to their core of interest, principal, premium or discount.

The components of financial instruments are subject to Securities and Exchange Commission rules, Public Company Accounting Oversight Board pronouncements, Internal Revenue Service rulings and other statutory requirements.

These conventions are supplemented by management prerogatives around a cash basis or other accounting bases, performance and performance attribution analysis, and management's own accounting bias.

SS&C is alert and aware of large technology companies looking at fintech and we have a high level of respect for them. The financial technology space is young, vibrant and unique. Losing our position to competitors is unlikely and not something we dwell on.

Philippe Ruault, BNP Paribas Securities Services: Yes, it is an additional challenge that traditional service providers have to face. However, some of the traditional providers have already implemented collaboration with fintechs as a way to accelerate some their transformation programmes and new product launches, or simply in a pure venture capitalist capacity.

Financial institutions have strong track records in transforming their business models (it has been the case recently that this is in order to cope with new regulation and changing economic conditions), so we trust they have acquired enough agility to cope with this challenge.

Things are already moving fast, and each day traditional service providers are communicating on organisational changes and investment in the digital and new technology areas.

Conversely, by moving to financial services, tech giants will also have to cope with new major regulatory constraints, such as capital and control frameworks, which might hit their profitability models.

Paul Stillabower, RBC Investor & Treasury Services: The funds industry is particularly susceptible to fintech that looks to bring greater speed, efficiency and transparency to many of the manual processes that still exist, and to the perceived proliferation of 'middle men' within the process. Fintech firms see an opportunity to push potential solutions into the industry through fast adopters.

Rather than viewing fintech as 'competition', the industry should learn from and work with the sector to turn potential disruption into opportunity. Ways of working will likely evolve, incorporating methods currently associated with fintech. Already, at RBC Investor & Treasury Services our increasingly client-centric approach involves them from the outset, in product development through agile labs to ensure solutions meet clients' needs and are developed significantly quicker.

Traditional service providers have already embraced technology such as fund automation and straight-through processing to increase transparency, lower costs, reduce operational risk and respond to changes in the regulatory and operating environment and to clients' needs. By working alongside fintech providers, they will continue to do so. However, the industry must approach fintech in a rational way. While the potential is undeniable, due consideration should be given to the unclear regulatory framework, the ability to scale up services, the sheer number of fintech companies, alignment of business models, risk appetites and culture, and issues around security, including cyber security and digital identification.

Fintech's influence will be measured when we see how far the market adopts these products and services, and whether the technology can create operational efficiencies and enable effective risk management.

Suresh Kumar, BNY Mellon: Many established financial services companies, including BNY

Mellon, have robust innovation programs in place internally. However, I believe that in order to best meet our clients' needs in today's world of disruption by small start-ups, we need to complement our own efforts with outside collaborations and partnerships with fintechs. Fintechs bring with them a fresh perspective for improving a very focused service area.

At BNY Mellon, as we identify fintechs that offer services that would benefit our clients, we work to build partnerships with them, up to and including the opportunity for those fintechs to offer their services to our clients through our NEXEN digital platform.

Matt Hodgson, Mosaic Smart Data: Traditional service providers such as global investment banks have historically opted to build trading architecture in-house, yet the financial crisis and subsequent wave of regulation that followed has now begun to shift the focus to specialist financial technology vendors.

Amid an increasingly challenging environment where revenue decline across fixed income, currency and commodity markets continues to place downward pressure on bank balance sheets, the need to secure an advantage through technology has become more important than ever.

However, at the same time, this market focus has placed significant pressure on budgets and margins—effectively rendering cost and time to deployment as crucial considerations in any decision related to technology. This has led to changes in how large institutions implement new technology as the cost of building and maintaining proprietary systems becomes increasingly prohibitive.

By comparison, the growth of outsourcing to technology vendors has been driven by the visible and predictable nature of costs, rapid nature of time to deployment and level of expertise offered by a specialist provider.

While this is changing the way in which firms deploy or enhance new systems, the focus must also rest on investing in technology most likely to yield competitive advantage.

Suresh Kumar
Senior executive vice president and chief information officer, BNY Mellon

Matt Hodgson
CEO
Mosaic Smart Data

Sebastien Slim
Head of marketing and innovation, HPS

Edward Glyn
Managing director and global head of relationship management
Calastone

Neil DeSena
Managing partner, SenaHill

Within the fintech sector, the field of data analytics has quickly become a focal point of innovation, as service providers such as banks begin to realise the opportunities that can be gained from deriving actionable insight from transaction data. Ultimately, those institutions able to effectively aggregate, standardise and analyse data in real-time will be best placed to increase their profitability and strengthen market share.

Sebastien Slim, HPS: We're currently at a tipping point between running scared and welcoming the fintech community. The established players, such as financial institutions, are desperately trying to work out how to avoid being 'Ubered'.

For this to occur, financial institutions will need to open their existing systems up to the fintech community via the development of an open application programing interface (API) that lets third parties access their existing systems.

At HPS, we're already seeing demand from our customers for API payments software, which demonstrates that financial institutions are already welcoming and collaborating with the fintech community, rather than running.

Edward Glyn, Calastone: Technology giants have always played a part in institutional fintech, as providers of infrastructure services, core banking platforms and enterprise application integration.

The funds ecosystem is very varied in terms of players, products, geographies and processes. It is complex and fragmented as well as tainted by a history of poor investment in technology, protectionism and large infrastructure failings.

Fund management players care about capitalising on opportunities for distribution, maintaining performance, excellent service provision and not falling foul of the regulatory authorities.

In order to achieve this, they need agile technology providers that truly understand the funds market and who can provide easy access into new markets and help them adopt solutions to real world problems in order to de-risk their operational footprint and reduce unnecessary cost.

Calastone enjoys the privileged position of powering over 50 percent of funds distribution in the UK and mirroring that success across 28 countries worldwide. Unlike the tech giants, we focus on one market and understand it well.

As a provider of proven technology, run by passionate people with unparalleled expertise in the asset management industry, we see our position on the market as strong, and do not therefore fear tech giants entering the market.

Neil DeSena, SenaHill: Big banks and traditional fintech providers do not believe that tech giants like Microsoft and others have a clear way into the institutional fintech arena and are not running scared.

Their confidence comes from irreplaceable industry knowledge and expertise obtained from decades of business understanding. Being fearful of anyone, including tech giants, isn't in their mentality.

However, while banks may think they have all the solutions, lately they've been running into significant struggles. Banks spend approximately 70 cents of every dollar on current legacy technology and between 25 and 35 cents on legal and compliance.

They know their technology is ancient for the 2016 technological world in which we live, but they don't have the expertise or money to fix it. The traditional service providers might have no other choice but to open their arms to the tech giants for Wall Street's survival.

Wall Street is looking for ways to consolidate, integrate and update their technology. One possibility is to embrace the shared economy. For example, cloud computing is a model that can be followed. The West Coast built and paid for a great deal of the infrastructure that traditional Wall Street firms could leverage to reduce their cost while updating their offerings.

In that sense, tech giants may have many of the answers to Wall Street's current problems.

The ultimate question that needs to be answered is: can Wall Street and Silicon Valley work together? **AST**

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Regulatory

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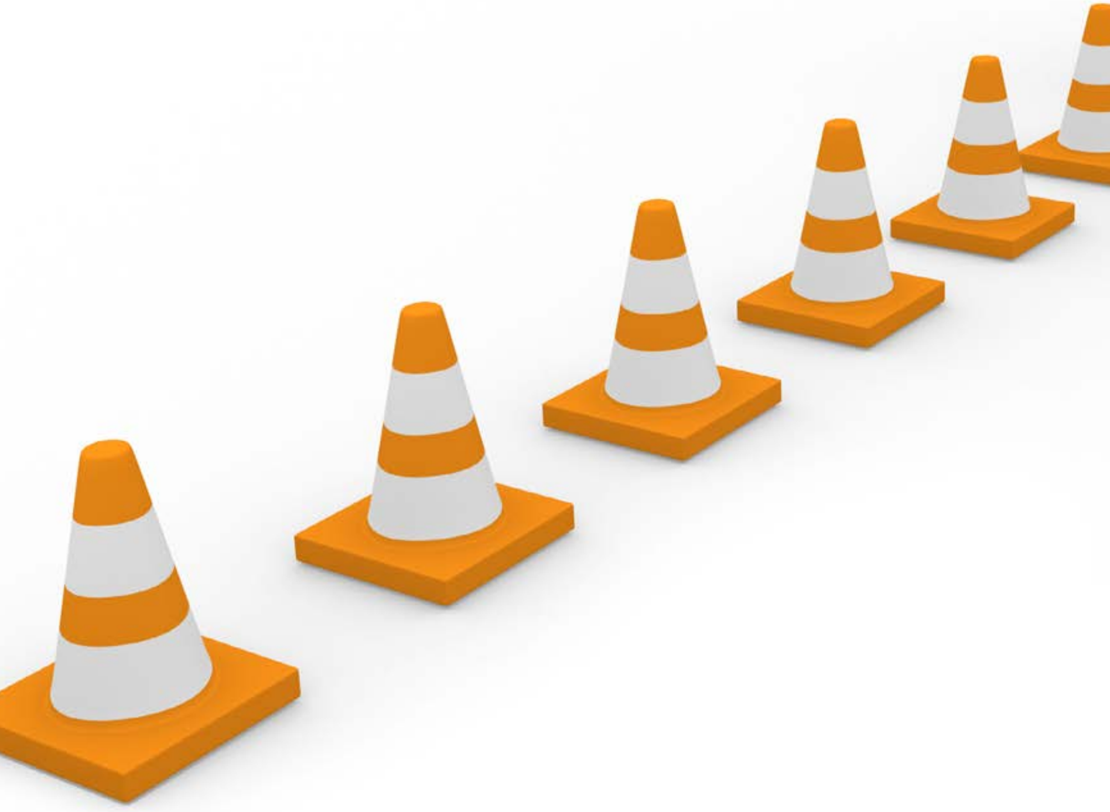
Technology

He who regulates is lost



The powers that be may have to make some changes themselves if they're to figure out today's new-fangled financial crowd, says Sam Pearce of Pillsbury Law

Being a regulator must often feel like a thankless task. Not only must they contend with being perceived as overbearing watchmen, imposing costly compliance obligations on the whole in order to police the few ill-meaning characters, but consequently they are seen to be prohibitive rather than permissive; building fences rather than putting up safety nets. Then there is the small issue of remaining current in the face of ever-changing new trends where old rules and regulations no longer fit the bill.

For the UK's Financial Conduct Authority (FCA), the task recently became more difficult. Whereas before they had to contend with the highly sophisticated operators in traditional financial services, they now also have to deal with the innovations created by the bright minds in the technology sector. These disruptive innovators have attracted significant funding, with record levels of investment in 2016 in the financial technology and regulatory technology sectors in particular. They are nimble operators and smaller than the big game that the FCA is used to dealing with. So where next for the regulator?

The past year or so has seen tremendous appetite among regulators to get to grips with 'fintech' and the related sub-techs. Rather than approaching regulation with a thick rulebook and the threat of fines, in many cases they have adopted a more inclusive stance.

The FCA's 2016 Business Plan recognises the risks that accompany technological advancements, such as cyber-crime and financial exclusion, and consequently they are on the front foot to ensure the policy, supervision and enforcement achieves the twin aims of promoting competition and dissuading poor behaviour. Chapter two of the business plan details that the environmental drivers of risk that the FCA has identified and included in the list are policy and regulation. The FCA believes these drive strategy, performance and behaviour of financial services firms, thereby influencing their products, services and the

meeting of consumers' needs. The regulator has outlined its intention to focus on supporting economic growth and assessing the potential impact of regulation before implementation, rather than a shoot-first approach.

Importantly, technology also commands its own section, with the FCA noting that massive amounts of data, coupled with powerful analytics tools, provides greater firepower for high frequency and algorithmic traders. Finally, blockchain and cloud technology are namechecked as disruptive developments that "pose regulatory challenges".

The result of this is that innovation and technology are listed as priorities for 2016 and 2017, with a focus on requiring more resilient systems and new sources of competition. The FCA lists the following desired outcomes:

- Regulation promoting innovation that benefits consumers, by meeting current and future needs affordably and appropriately;
- Support for regtech developments to assist regulated firms with their compliance;
- More robust technological infrastructure with reduced downtimes and a proportionate and timely redress for consumers who are affected by technological failure;
- Investment in appropriate technology to support the firms' business strategies.

The FCA has a number of tools at its disposal to help achieve these outcomes. In late 2014, it launched 'Project Innovate' and the 'Innovation Hub' to encourage innovation and growth by supporting businesses of all sizes that are developing new products that might materially improve consumers' experience and outcomes.

The Innovation Hub will also provide informal steers to businesses, to encourage firms to approach the FCA and for the FCA to directly liaise with the businesses. Critically, the Innovation Hub also worked with the British government on plans to introduce new regulation to for digital currencies—further evidence of this more collaborative approach.

In its first year the Innovation Hub assisted over 175 businesses, resulting in five new authorised firms. In total, the hub received 413 requests for support and provided that support to 52 percent of those firms. The FCA now intends to expand

Project Innovate in terms of both capacity and general awareness, and included with this is the launch of the 'regulatory sandbox' to provide a safe environment for businesses to test their products. The intention is that an unauthorised firm can use the sandbox to test products, services, business models and delivery without needing to meet all of the normal regulatory requirements and before embarking on the costly process of obtaining authorisation. These firms will be granted limited authorisation for testing purposes.

Authorised firms that are testing ideas that do not clearly fit within the existing framework may also benefit from the sandbox. The FCA intends to provide direct, individual guidance to firms by setting out how it will interpret relevant rules in the context of the test. Those firms that adhere to the guidance will be deemed to have complied with the rules to which the guidance applies. The FCA may also grant waivers to breaches of rules if they are considered to be unduly burdensome or not achieving their purpose in that particular context, and where a waiver or modification would not adversely affect the

advancement of any of the FCA's objectives. It is important to remember here that the FCA has stated, for the record, that they cannot waive EU law or primary legislation. Finally, they would consider issuing 'no enforcement action' letters in exceptional circumstances. However, as the 'no enforcement' is a new tool, the FCA cannot give examples of the instances in which issuing such a letter might be appropriate—so it's very much a wait and see situation.

Firms and businesses interested in utlising the sandbox would have to satisfy specified criteria and apply for the first cohort between 9 May and 8 July 2016. The second cohort have an application deadline of mid-January 2017. It should be noted that the sandbox will not be available for activities which fall outside of the Financial Services and Markets Act 2000. For example, payment service providers and e-money issuers already potentially benefit from the lighter touch regimes in the Payment Services Regulations and the Electronic Money Regulations. In a paper published in November 2015, the FCA specifically included an example of sandbox testing blockchain technologies and the potential approach that it may take. It will be interesting to see how the testing approach develops for those firms with both a blockchain platform and their own crypto-currency.

The introduction of the sandbox is absolutely consistent with the FCA's desire to be more accommodating and to encourage innovation. The regulator believes that firms will be better placed to attract investment and achieve better valuations if potential investors can be given some comfort as to the regulatory viability of products. The sandbox should also assist the FCA with keeping up to speed with developments to ensure appropriate guidance and regulation to protect consumers.

By partnering with innovators, the FCA can ensure that the appropriate safeguards are incorporated into the products at the outset. It is also a form of data gathering; the FCA will see the latest developments as they come down the track and adapt its approach accordingly.

There is no doubt that the last few years have seen the regulatory landscape change dramatically for the FCA and its counterparts, meaning that the need to adapt quickly to the new environment is crucial to their success and how they are perceived. The FCA's desire to work closely with firms to promote innovation, disruption, competition and collaborative regulation is crucial to achieving this aim. As a result, it will have a better view of the ecosystem and will be well-placed to effectively regulate for the protection of consumers, rather than trying to retrofit existing and potentially outdated regulation to such an innovative space. In short, its involvement at an early stage brings benefits to both the regulator and the innovators alike. **AST**

Sam Pearse
Partner, corporate and securities practice
Pillsbury Law

Data

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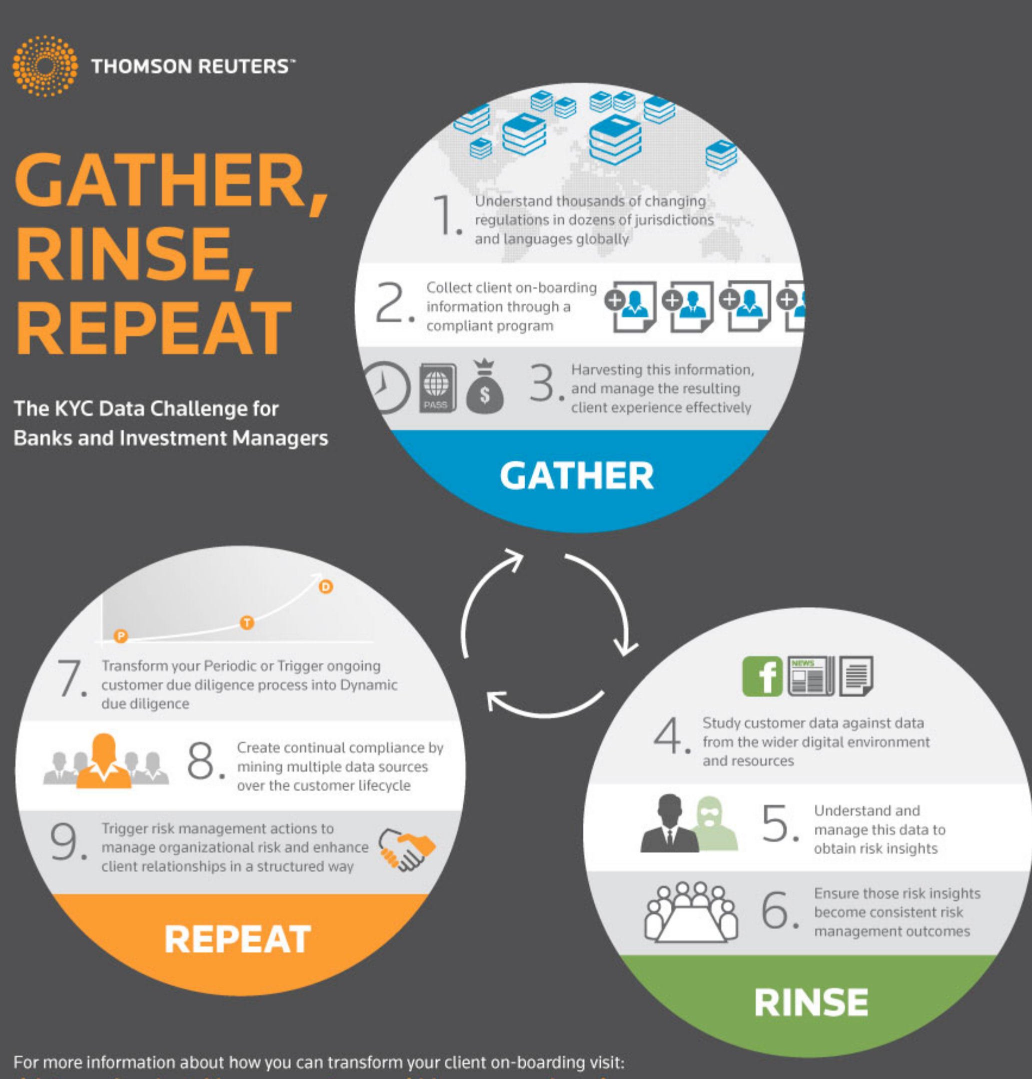
Management



Freshening up

Regulatory data management isn't just about safekeeping anymore, says Neil Jeans of Thomson Reuters. Institutions also have to make sure their information is clean behind the ears

As new know-your-customer (KYC) rules are being implemented in markets around the world, banks and investment management companies are beginning to realise that the challenge around managing their KYC data is about to become substantial. New best practice is 'dynamic' KYC—knowing where a particular client stands against increasing regulatory complexity, an

evolving global environment, and as a result of their own material changes, at any given moment.

The pace of change in the development of KYC regulation has been so swift that it's hardly surprising that most organisations fall far short of this new benchmark. At the moment, KYC data is updated periodically, either when there is a refresh program going on, or because of a trigger that the organisation becomes aware of.

Dynamic KYC might be about to become a regulatory requirement, but for many organisations, it can look like mission impossible. That's because the challenge around managing KYC data is enormous.

Financial services organisations need to have a process that complies with multiple types of KYC regulations, including anti-money laundering, terrorist financing, bribery and corruption, and tax rules like the Foreign Account Tax Compliance Act (FATCA).

To make matters worse, they need to comply with all these different types of rules across all of the jurisdictions that they operate in—and in some jurisdictions there will be more than one regulator to take into consideration.

As if this weren't enough, the rules are constantly evolving. For example, around the globe countries are now updating their anti-money laundering rules to bring them up to the standard set by the Financial Action Task Force's (FATF) new guidance issued in 2012.

The FATF 2012 guidelines create an entirely new framework of KYC obligations for financial services organisations—one that will revolutionise their approach to KYC data management.

Today's financial services organisations now need—as a first step—to be sure they have all the correct client onboarding data at the start, as required by regulators. They must understand that data in the context of the potential client's wider operating environment, and then take a decision as to whether they can do business with that client, or not. Before, that was the end. Now, it is only the beginning. Organisations then need to keep on top of material changes, because their clients may forget to tell them about those changes. Organisations must understand this client information against a backdrop of evolving contextual data—news, social media, regulatory filings and sanctions.

They need to be able to do this continually, without ceasing, over the course of the entire client lifecycle, in order to be compliant.

However, managing this data is just the first step in this process.

Both when clients are first being onboarded, and then over this longer, continuously monitored lifecycle, organisations need to manage risk effectively.

They need to be able to take the data and transform it into risk intelligence, so that they are then able to trigger the risk management actions necessary to manage organisational risk and enhance their client relationships in ways that make sense.

The road ahead is mapped out. Banks and investment managers need to raise their games significantly in order to implement a dynamic KYC data approach to their anti-money laundering, terrorist financing, bribery, corruption and FATCA compliance programmes.

There are essentially two options: to buy in the data and solutions to create an internal process, or to work with a managed service.

Each organisation and its compliance team will want to explore the pros and cons of either approach as they move forward towards dynamic KYC. **AST**

Neil Jeans
Head of policy and standards
Thomson Reuters

Transfer

ASSETSERVICINGTIMES

Agency

Fintech
USE ON:
Inefficient processes
USE ON:
Labour-intensive tasks
Outdated legacy systems
USE ON:
Arduous regulatory reporting

Fighting fintech with fintech

The financial technology revolution could be game changing for transfer agents, unless they adapt to innovation and get there first, says Keith Hale of Multifonds

How does new technology innovation affect transfer agents?

The ongoing challenge for transfer agents is to continually improve their levels of automation and efficiency. The threat of a game-changing disruptor entering the industry has never been higher. As we have seen in other industries, where there are inefficiencies or unnecessary costs there are opportunities for a disruptor to come in and exploit this, for example, as Uber has done in the taxi industry. We haven't yet seen this scale of change in the financial services industry, but there is a real possibility that 'foe' (as opposed to 'friend') financial technology firms could shake up our industry.

There is pressure on costs but when it comes to fees, transfer agents actually only receive a small piece of the investment value chain pie. It does differ, but typically if the total fees are 100 basis points, the transfer agent will only see 1 percent of that. However, if you look at the whole investment value chain, from advisory services through asset management and to administration in the back office, they may be getting more of the pie, but disruptors are more likely to target those areas than the tiny transfer agency function. In fact, at least initially, they're more likely to come in with things like robo-advice in the front office than with anything that will disrupt administration and back-office operations.

Is there still a place for transfer agency in a modern back office?

Transfer agency is just one function of the investment bank, so really the question is whether we actually only have that as part of a bundled service, rather than as a standalone business.

I think they will survive, but they will have to evolve with new technologies and embrace the changes happening in the industry. We will probably see 'less doing more', so higher volumes with lower margins, and there will also probably be a move towards higher levels of automation and more straight-through processing.

We have already seen quite significant changes with initiatives such as Target2-Securities and centralised anti-money laundering and know-your-client facilities. New technologies such as blockchain could change the likes of real-time settlement and affect the way people interact with each other, but there will still be a need, ultimately, to maintain records on who owns the shares provided by the fund manager, who buys them, and who subscribes to buy them. That will always exist.

What transfer agents do, and how they do it, may change quite significantly, but industry change is normal. It will simply become more nimble, more concentrated and more volume-based, with fewer players that are more efficient.

Is there pressure from end consumers to make back-office processing more efficient?

Theoretically, yes. There is a whole generation of 'millenials' who don't have pensions, who haven't invested personally, and who haven't got a long-term saving plan. Eventually, they will want to start saving, and they will realise they're not going to get the returns they want from the government or from their employers, and that they're going to have to do it themselves. It may not be happening right now, but it will.

These investors are likely to look for an online facility and a social-media style way

of assessing what is a good investment. They will find ways to invest in underlying funds or products that will produce good returns and grow their money in a healthy way. So, as far as the technology is concerned, I think the disintermediation is more likely to happen further up in the value chain.

The technology in the back office could definitely do with some improvement, but the end consumers don't necessarily care about that, and they won't choose a fund based on that. They do, however, expect it to be as low-cost as possible, and to do a good job as efficiently as possible, so transfer agents do have to try to maximise returns for those investors. Consumers want their fees to be as low as possible and they don't want to see their returns going into back-office functions. They don't care where their fees are going, and really, they don't need to.

Not all fintech is disruptive. Multifonds has been around for 20 years, providing financial technology to the industry—so we are a fintech, but we're not disruptive, we're just a service provider. The job of service providers is to get better over time, to become more efficient and to help clients—fund managers—to do a better job for their clients, in turn.

Can disruptive fintech be positive?

The other side to fintech is the new, disruptive companies that come in, cause disintermediation and obliterate the status quo. Potentially these are the companies that could change the game completely, negating the need for a transfer agent, or even a fund manager, altogether. These are the ones that disregard the regulation, they just come in, target processes that are inefficient or ineffective, and change the model and the way products are delivered to customers.

However, I would argue that it's actually quite healthy for the funds industry to be looking over its shoulder. Straight-through processing rates have increased as a result, there is a consensus that the industry should be more automated, and we're seeing more efforts to get people working better collectively.

I think that's beneficial both for people within the industry and the end consumers—when your whole industry is at risk, it makes you more focused and more open to change.

Transfer agency is a small little cog in the wider industry. It could do a better job and it could be more automated, but there are other parts of the value chain that could be affected more by disruption. The challenge for transfer agents and their clients is to be nimble in helping benefit the end customer.

It's an interesting time for the asset management industry. There is a growing middle class of people who want to invest, so there are more assets. We have to make sure we do a good job and that we move forward with the needs of those consumers. If we don't evolve, then a revolution can happen.

Transfer agents just have to make sure they keep their eye on the ball. **AST**

“It's actually quite healthy for the funds industry to be looking over its shoulder. STP rates have increased as a result and there is a consensus that the industry should be more automated”

Keith Hale
Executive vice president of client and business development
Multifonds

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Reconciliations

ASSETSERVICINGTIMES

Processing

Riding the tide

SmartStream's Julian Trostinsky explains why letting a utility team take the helm for reconciliations can make for smoother sailing

Recent years have seen an explosion in the volume of reconciliations financial institutions perform. Regulatory initiatives, in particular, have driven financial services firms to increase the number of reconciliations they carry out. Banks and other institutions are under greater pressure than ever from regulators to speed up the onboarding of new reconciliations and to prevent the occurrence of backlogs.

With regulators insisting on faster and more efficient reconciliations processing, banks are currently pondering how best to achieve the changes required within the timeframes demanded by authorities. For some firms, it is simply not possible to comply in time using their own personnel and existing IT infrastructures. Increasingly, institutions—also driven by the need to reduce staffing and operating costs—are turning to other solutions such as financial technology, outsourcing and, in the case of the most forward-thinking firms, the use of financial utilities.

In answer to this growing industry challenge, SmartStream has developed a Centre of Excellence for reconciliations processing. Manned by skilled personnel from the industry, the utility provides rapid, cost-effective processing of reconciliations. It aims to alleviate the current pressure on firms to cut operating costs, as well as to provide financial institutions with the means to respond promptly to incoming regulation.

Staying afloat

Banks may be under considerable pressure to improve the management of reconciliations but, far from getting closer to operational excellence, some firms are actually drifting further away from it. All too often, reviews of the systems and processes banks have in place

reveal a picture of deteriorating efficiency. For example, the average time needed to investigate and close an exception often turns out to be increasing, not decreasing. Additionally, the number of open exceptions may remain persistently high. Manual input, for example, may be at undesirably high levels, too.

Reviews of reconciliation processing operations also frequently bring to light insufficient or inadequate risk controls and alarms. One typical weakness is a lack of alerts to flag up reconciliation breaks. Another problematic issue is an insufficient number of checks and controls in the workflow defined to regulate the write-off process, and in other cases, matching is carried out using incorrect rule criteria.

Compounding these difficulties is the fact that existing systems and processes often lack scalability and flexibility, making it hard to incorporate operational changes or new business lines. Lack of flexibility and scalability also hinders financial institutions' ability to respond to external changes such as new regulation or alternations in counterparty messaging formats. An aging and inflexible solution is likely to make the onboarding of new reconciliations time-consuming and arduous, too.

Weaknesses such as those previously outlined also make it far harder for financial institutions to achieve continuous process improvements.

Yet it is hard for financial institutions to know how to proceed. Banks are hindered by a large number of disparate legacy systems and end user applications that prevent the making of far-reaching changes and stymie attempts to achieve greater efficiency.

So should they strip out old systems and implement new technology? This option can be time-consuming and expensive, and the maintenance of new IT systems is also costly. Firms have to budget for software upgrades, routine software or database maintenance tasks, and must factor into their calculations the purchase, housing and building of hardware, as well as the cost of operating system and database licences, data backup, and archiving services.

As a result, some financial institutions are turning away from previous approaches such as in-house development, and are looking instead at working in partnership with a specialist third party to whom all or part of the reconciliations management process can be entrusted.

Hands on deck

The SmartStream Centre of Excellence for reconciliations processing currently serves over 30 well-known financial institutions. These are drawn from both the sell and buy side, and include tier-one, -two and -three banks, as well as hedge funds and asset managers.

The centre provides two distinct services. The first is the central onboarding utility (COU), which was developed to allow faster reconciliations onboarding. The second is the managed service utility, which combines access to SmartStream's reconciliations processing technology, on a utility basis, with a fully outsourced reconciliations handling service.

Each offering facilitates faster and more cost-effective management, lowering, for many firms, the cost of implementation significantly.

Staff members for the centre are drawn from business and technical backgrounds, and have an in-depth understanding of middle- and back-office processing. Their extensive knowledge of SmartStream solutions and third-party vendor products is reinforced by continuous training, and personnel are experienced at liaising with client project teams and in supporting organisations with complex technical environments.

Operating across different geographies and business lines, the centre has a global reach. This capability, coupled with the capacity to handle multiple products, makes it a one-stop-shop for financial institutions.

It also enables it to serve the needs of large, multinational companies. The centre provides a risk-mitigated solution with consistent levels

of service performance, as well as great scalability and flexibility. It is intended to allow financial institutions to achieve better value through operational excellence and continuous process improvements.

SmartStream places great emphasis on working in partnership with its customers. The approach taken by the Centre of Excellence reflects this outlook and its staff co-operate closely with clients to create a service that matches exactly with firms' individual needs, a factor which is proving highly attractive to a growing number of financial institutions.

Since its launch, the centre has experienced a tremendous surge in demand for its services. With competitors only now entering this area, the utility offers a service that is unique in the market today.

All aboard

The centre's reconciliations onboarding service, offered through its COU, is aimed at enabling financial institutions to reduce onboarding times, as well as to manage the rising volume of reconciliations in the most efficient manner possible.

Clients are already experiencing the benefits of using the centre's faster onboarding service. Take, for example, the case of a tier-one global financial institution currently using the facility. The company has seen significant improvements in processing efficiencies; auto-match rates have improved by 97 percent, and straight-through processing rates have improved too. It is now also able to provide a greater depth of transaction detail to its clients and so has improved customer service levels.

By using the centre's analytical capacities, it has weeded out many processing inefficiencies. One such example is the reduction in its exceptions rate, which has been cut by 67 percent.

Over and outsource

SmartStream recognises that there is a growing band of financial institutions that wishes to access technology as a utility, as well as to adopt a fully outsourced reconciliations processing service. Following several years of development, SmartStream has created a highly competitive offering that satisfies both these requirements.

The managed service delivered by the Centre of Excellence operates on a multi-tenant basis and covers the entire end-to-end reconciliations management process. It encompasses faster reconciliations onboarding, as well as hosting SmartStream's solutions. It is delivered by highly skilled people, trained to oversee every aspect of the service and thereby reducing the management burden while, at the same time, ensuring operational excellence.

Upfront implementation costs and time are minimal, making it an ideal option for firms looking to respond promptly and cost-effectively to new regulation or business changes. This is well illustrated by the example of a recent client, a global broker, which, following regulatory focus on brokerage

clearing and execution, chose to make use of the centre's managed service for its internal and external brokerage and exchange-traded derivatives reconciliations.

Importantly, the managed service can be tailored to banks' individual needs, allowing considerable flexibility. It also puts financial institutions in a position to adapt to changing business and regulatory requirements far more rapidly and easily than was traditionally the case. For example, it takes away the need to hire extra permanent employees to cope with the impact of incoming regulation or to make redundancies among internal staff, should the scaling back of certain operations become necessary

The course ahead

Developed following close consultation with clients, the SmartStream Centre of Excellence was created in direct response to a growing appetite for a new type of operating model—one which could lift the management burden linked with reconciliations processing from financial institutions, leaving them free to focus on core business.

Given the current pressure on firms to cut operating costs, as well as the need to respond rapidly to incoming regulation, the demand for this type of operating model for other internal banking processes looks set to grow significantly during coming years. **AST**

Julian Trostinsky
Managing director, central onboarding utilities and managed services
SmartStream

Securities

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Lending

Back to business

Outsourcing critical business solutions is becoming more necessary in today's ever-changing securities finance market. Matthew Harrison of Trading Apps explains why

Within the securities finance industry, there are often gaps in functionality that exist with the major software vendor products. Customising these for the individual needs of an investment bank, hedge fund or asset manager cannot only be costly, but push solutions for the user further away from delivery and produce an unsatisfactory return on investment.

Developing proprietary-based systems has frequently been the solution for finance institutions, so that they can utilise multiple data feeds and software, which are necessary for them to trade. However, the time taken to deliver these systems often means that budgets overrun, internal resources are stretched and delivering the business requirements becomes increasingly difficult as the market is continually changing. Many other industries have moved away from this model due to its inefficiencies and lack of technology utilisation and standardisation.

Organisations such as Trading Apps are quicker to market than in-house proprietary-based systems (90-day implementation) with targeted applications that can keep pace with the business, vendor and regulatory changes. By leveraging the Trading Apps robust application-building platform, Glass, we bring a tangible and immediate return on investment to the client and free up over-stretched IT departments that are challenged with front-end user requirements and back-office system enhancements and changes. Trading Apps works in tandem with the client's existing infrastructure to leverage the return on investment and avoid high-cost infrastructure replacements and upgrades that often cripple IT budgets and fail to deliver immediate user benefits. The industry needs solutions that are relevant, contextual, and employ a consistent look and feel, so that training users and maintainance are not a burden on the organisation or the industry as it evolves.

Financial institutions' IT departments should be investing their time, talent and capital to develop competencies that will set them apart, creating differentiation from their competition and driving higher revenue returns.

High performance financial businesses need to move to a cost-efficient, highly flexible and scalable software model, which allows them to respond rapidly to market and regulatory changes, improve operational efficiencies, elevate performance and jump-start new growth in a challenging marketplace. Trading Apps is challenging securities lending organisations to move

away from complex and inefficient software environments and instead, build capabilities that are more scalable, agile, reliable and responsive to the trading needs of the business, today and in the future.

The six main benefits of outsourcing software development for the business and IT departments are:

Controlling and managing costs: When you outsource your organisation's system development, you are able to control costs by paying a set licence and maintenance fee per application, so you know what your expenditures are without fluctuation. You are also able to take advantage of economies of scale, with predictable implementation and reduced consultancy charges, and learned efficiencies and expertise. When you have your own software development team to fund and run, it can be extremely expensive with high levels of risk for individual team members and project costs set by internal procedures and external consultants, reducing the return on investment from your budget, which can be utilised in other areas.

Focusing on your business: Your organisation is a financial institution with its core competencies in this area, not software development. Every company has limits to its resources and an external vendor such as Trading Apps will let you redirect them from non-core activities toward activities that provide a greater return on investment. Allowing Trading Apps to utilise your current vendor or proprietary systems frees up valuable resources and time to concentrate on the areas that make you successful, while maximising your return on investment on current vendor systems that do not require large overhauls, which are costly and time consuming with little direct value to the user and support teams.

Access to the most current technology: Trading Apps brings world-class knowledge and experience to your organisation on a continual basis. You will receive access to new technologies and knowhow that you may not have considered previously, as well as techniques and tools that you currently do not possess. These tools include tried and tested features, benefits and procedures that can replace the numerous ad-hoc processes, such as Excel spreadsheets, that are still being used to support mission critical parts of your business.

Additionally, Trading Apps tests the software developers they hire, and maintains their training and examinations on a continual

basis to keep them up to date with the latest technologies.

Continuous monitoring of your software environment: Even if you do have the professionals on staff, with a limited number it would not be reasonable to have them monitor your IT environment every hour of the day, and every day of the year. The Trading Apps team and software have the tools to do this, and can foresee serious issues with your system environment and can fix them before business-critical issues occur. Trading Apps maintenance can also take care of day-to-day tasks such as software updates and patches to legacy third-party systems, which are often out of date and difficult to maintain.

Minimising risk and future software strategy planning: Trading Apps can provide you with its experience of working with different clients. It looks at best practices across the industry with a view of the impact of changing regulatory standards, ensuring the latest software technology.

Technology is constantly changing, and it is difficult to ascertain what a company will need in the future and how those needs will translate into a financial return. By selecting Trading Apps with our modular software approach, uncertainties become more predictable.

Increasing productivity: Because of all of the above benefits, your organisation will be able to lower its internal costs and focus on its core competencies. Trading Apps can help predict, prevent and quickly respond to serious business and regulatory issues, minimising both business and system failures. Moreover, you will be using the most current finance technology that enhances your success and makes you more competitive. With the Trading Apps modular software approach, you can streamline processes and make them more efficient and productive, and your traders will also be able to take advantage of rapidly changing market opportunities more quickly.

In summary, outsourcing is a natural evolution for the securities lending participant. Getting the right technology solutions in place is paramount and as market regulation continues to evolve and makes itself increasingly prevalent, the requirement for technological solutions that capitalise on existing investments through integration and automation becomes inevitable. Trading Apps offers solutions that create interaction with multiple systems and information that satisfies the regulatory requirements and removes the burden of proprietary development to enhance the business and its technical delivery and revenues. **AST**

Matthew Harrison
CEO
Trading Apps

Technology Excellence for Fee & Commission Management

Quartal Financial Solutions is a market leading provider of award-winning fee and commission management, revenue and expense lifecycle management software for the financial and insurance industry. Our products are used by key players in the financial industry to reduce operating costs, improve performance, and get quicker return on investment.

Quartal's products effectively support the entire commission and fee management lifecycle - from calculations and payments to invoicing, controlling, allocations, modeling, forecasting and reporting on one single software platform.

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Broadridge Financial Solutions

Broadridge Financial Solutions is the leading provider of investor communications and technology-driven solutions for broker-dealers, banks, mutual funds and corporate issuers globally. Broadridge's investor communications, securities processing and managed services solutions help clients reduce their capital investments in operations infrastructure, allowing them to increase their focus on core business activities.

With over 50 years of experience, Broadridge's infrastructure underpins proxy voting services for over 90 percent of public companies and mutual funds in North America, and processes on average $5 trillion in equity and fixed income trades per day.

Broadridge employs approximately 7,400 full-time associates in 14 countries.

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Commerzbank offers you comprehensive knowledge of the German market and its regulatory frameworks through its autonomous and highly sophisticated product package.

Commerzbank's custody services comprise two key elements: a set of services related directly to the custodial handling of securities, and a set of added-value products that can be mixed and matched flexibly to meet your precise requirements.

Services are structured in a way that allows made-to-measure packages to be put together to fit your individual needs and preferences. The following core components form the backbone of these services: settlement services, dividends and other income, reporting on a SWIFT basis, proxy voting, corporate actions, safekeeping, changes in capital, order routing.

Commerzbank is a leading provider of state-of-the-art custodian services with the ability to provide a portfolio of efficient service solutions tailored precisely to your needs. With over half a century of experience in core products and value-added services in asset administration, we focus on flexibility—integrating fresh ideas to optimise performance.

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Quartal Financial Solutions

Quartal Financial Solutions is a market leading provider of award winning fee and commission management, and revenue and expense lifecycle management software for the financial and insurance industry. The company was founded in 1999 and is headquartered in Zurich, Switzerland, with additional offices in London and Frankfurt. Our clients range from the largest global asset managers, banks and service providers to bespoke wealth management companies. Quartal's products enable the automation of complex calculation, payment and invoicing processes along with sophisticated reconciliation, budgeting, expense, contract management and high-end reporting capabilities.

Quartal COMMISSION is a multi-asset class commission and distribution fee management solution that increases transparency and accuracy in commission processing while reducing associated costs and risks. A flexible and innovative solution, it automates the calculation, allocation and reconciliation of distribution commissions and sales costs. Quartal FEE MANAGER offers a flexible and innovative solution for fee, revenue and expense management with a calculation and processing engine specifically designed for all aspects of billing and revenue management.

Our solutions reduce processing costs, allow our clients to increase their revenues and information transparency, and optimise their pricing and cost models, while significantly reducing compliance and process risk. With a well-established, strong product and service offering and an innovative product roadmap, Quartal is a global market and mindshare leader in fee and commission management.

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SCORPEO

SCORPEO's innovative services connect you to the hidden value in corporate actions. SCORPEO is a market leading Fintech company that specialises in identifying and capturing the value embedded in corporate actions for global investors. With over two million corporate actions every year and many requiring voluntary elections, making the right choices and optimising the value is not easy. As a result, billions of dollars of potential value is being missed across the industry every year. Ensuring the full economic value is captured from these events takes time, resource, expertise and the relevant mandate. SCORPEO's expertise and unique technology provide the solutions, helping our clients improve fund performance and driving investor returns.

SCORPEO VALUE ANALYSIS calculates the missed value across portfolios as a result of sub-optimal corporate action elections.
SCORPEO VALUE CAPTURE PROGRAMME is a unique technology solution that optimises the intrinsic economic value in many types of corporate actions.
SCORPEO ANALYTICS provides analysis on complex corporate events, helping fund managers eliminate the opportunity cost of missing value and creating investment opportunities.

Our services are designed for investment managers, asset owners and their global custodians, enabling them to capture the true value embedded in corporate actions. SCORPEO's services are run from our offices in London and Boston and supported by sophisticated technology and the considerable expertise of our team.

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SWIFT is a global member-owned cooperative and the world's leading provider of secure financial messaging services. We provide our community with a platform for messaging and standards for communicating, and we offer products and services to facilitate access and integration, identification, analysis and financial crime compliance.

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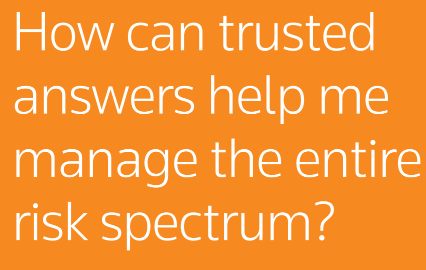

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- Multi-asset processing solutions
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- Electronic proxy voting

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