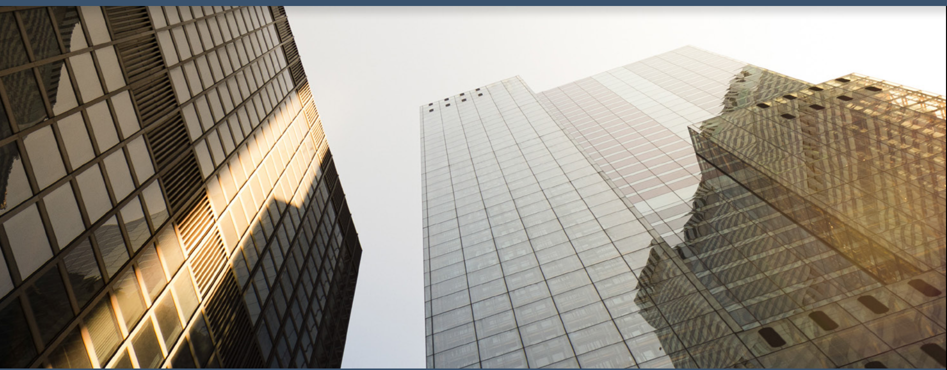
Operating within the new abnormal

Industry participants from T-Scape, FIS, Raiffeisen Bank International, CIBC Mellon, Broadridge Financial Solutions and IHS Markit discuss the importance of efficient corporate actions processing, the impact of COVID-19 and how the corporate actions space will evolve over the next five years

Why is corporate actions processing so important?



David Baxter

Having efficient processes in place reduces the likelihood of errors, and with it the risk of any financial or reputational damage that may result.

Although you could say the same about most processes, the processing of corporate actions is a little more complex than most as well as having various points at which an error could occur. This is difficult for fund managers, who sit at the end of the chain, but even more challenging for those that sit in the middle servicing others, such as a custodian.

If you consider all the entities that are involved at any given time it is easy to see why efficient processing is a need not a want.

At T-Scape we try to look beyond just the needs of our clients, but also the impact we can have on surrounding processes and the wider market. If we can improve efficiencies in one area how does that impact another? And what does that mean to the corporate action ecosystem as a whole?

A very simple example is deadlines. Each custodian will take the market deadline date and offset that by x number of days according to its own efficiencies, creating its own response deadline date. Many fund management corporate action operation teams work, for convenience, to the earliest of these custodian response deadlines ignoring the account/custodian relationship. Doing this can bind an account to a custodian it has no relationship with, compelling it to elect earlier than the response deadline of its own custodian. Aside from the fact that electing early could result in a non-optimal election for that account -a big issue in itself - it perpetuates the inefficiencies at both the fund manager and the custodian, and across the market as a whole. These are the sorts of inefficiencies we should be aiming to remove.

Philip Taliaferro: Today, more than ever, intermediaries across the corporate actions lifecycle must act and communicate accurately in the face of ongoing uncertainty, market volatility and pressure from internal stakeholders as well as clients.

Efficient corporate actions processing is vital. Client experience is often inconsistent as a result of multiple siloed solutions, which limits opportunities to grow relationships. When done right, corporate actions processing can create business and revenue opportunities by enabling faster and more accurate decision-making and allowing for a tailored experience for institutional and retail investors.

Vivian Petiza: Financial institutions rely on timely and accurate corporate actions data to help make investment decisions, complete valuations of investment portfolios and make sound financial choices.

For a service provider, it is critically important that there is efficient processing of corporate actions not only to best service their clients' needs, but also to reduce operational risks and associated costs. Service providers, therefore, invest heavily to have services that get it right.

Radoslaw Ignatowicz: No matter what part of the custody services chain you represent, investors want to know what happens with their investments. As a custodian, you were chosen to provide safety for their assets andenable settlement of transactions, but also to provide asset servicing that comprises corporate actions handling. Making the process of corporate actions right is one of the main reasons you are being

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> *Today, more than ever, intermediaries across the corporate actions lifecycle must act and communicate accurately in the face of ongoing uncertainty, market volatility and pressure from internal stakeholders as well as clients*

Philip Taliaferro
Head of strategy, EMEA and Asia-Pacific, and general manager, asset servicing
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paid. But it is not the only reason, corporate actions can also create operational risk. Without efficient processing of those events you can easily end up into trouble and, due to the high complexity involved in this processing and irreversible consequences of mistakes, such an event can easily harm your custody profit. Moreover, as we all know, operational risk impacts banks' capital requirements. It is definitely not something a banks' management expects from a custody business, which has a connotation of a stable fee generator with little to none capital consumption.

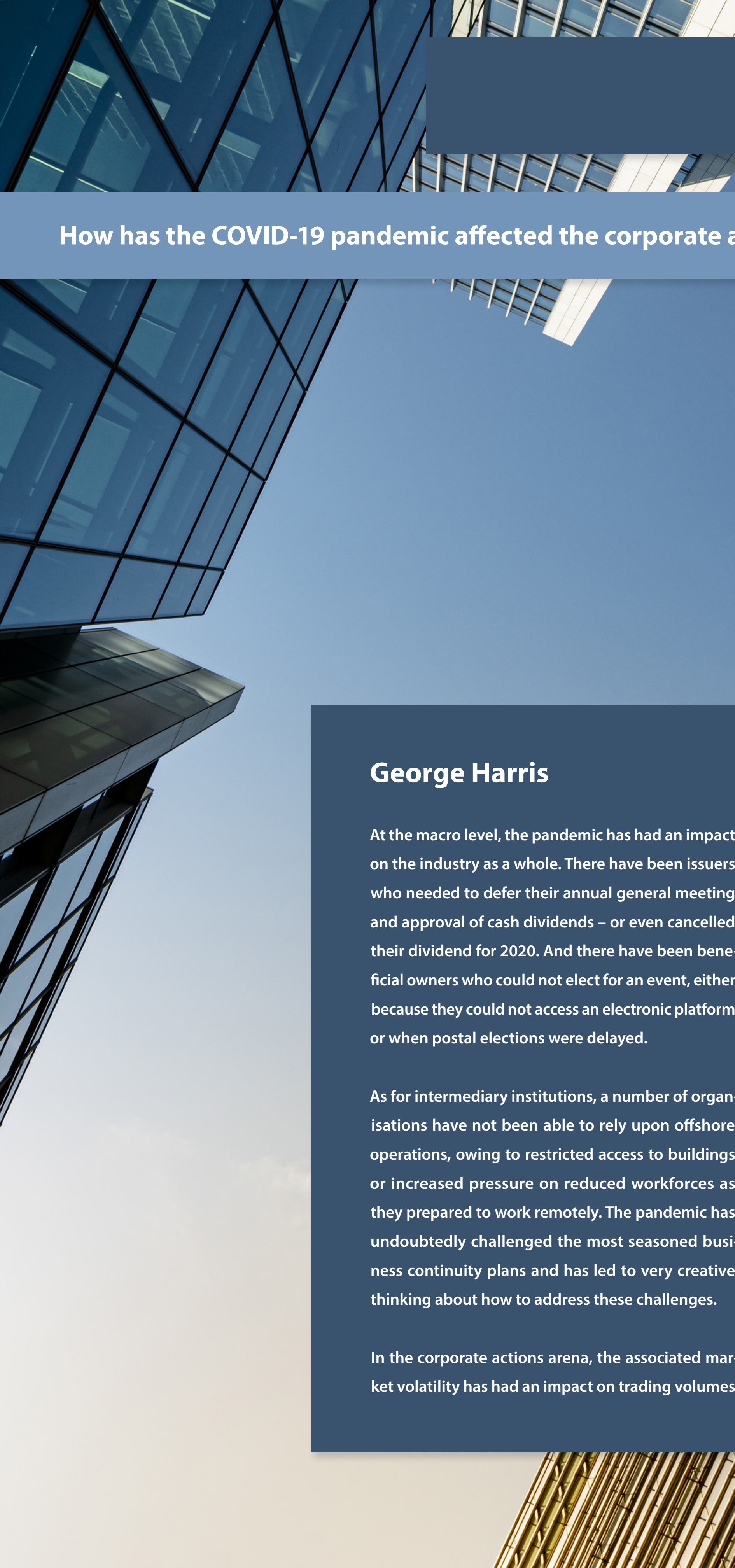
George Harris: Efficiency = Productivity – Expense: surely the management of corporate action events would support this formula. Therefore, it follows that a simple cash or stock movement, or a name change, should be an efficient process similar to that of trade delivery versus payment or free of payment trade settlement. Unfortunately, that's not always the case.

Operational practitioners fully recognise the enduring importance of avoiding risk. Naturally, any remediation or client reparation that results from failing to execute a corporate action as instructed may lead to a secondary market exposure and associated risk in volatile markets. With the introduction of the European Shareholders Rights Directive (SRD II) on 3 September 2020, the regulatory demand for orderly and efficient corporate actions processing now puts further pressure on the operational management of an event. With any processing failure now comes a potential financial penalty or reputational risk.

At the same time, management executives remain focused on the associated expense of managing corporate actions. To manage their fixed resourcing overhead, do they outsource, offshore or near-shore their whole or partial operation? Given these considerations, as well as the challenge of servicing an increasingly demanding client base, a dynamic solution needs to be found to balance the equation and increase efficiency.

Ankush Zutshi: The complexity and effort involved in sourcing and interpreting corporate action information to ensure accuracy and timeliness is quite significant. From here on, the need to ensure timeliness and accuracy in every step thereafter — dissemination of the corporate action information to investors, collection of elections and passing instructions to the street, and paying out correctly — further adds to these risks and operational costs and creates a number of potential points of failure.

Such complexities make corporate actions hard to automate even with latest technologies and standards as there can still be manual touchpoints. Given these challenges, relying on inefficient manual processes and legacy systems to process corporate actions, is akin to introducing a massive risk to the firm's reputation and finances, even with the implied high operational costs. It's no wonder that these inefficiencies are the reason many firms still set aside a corporate action loss budget.



How has the COVID-19 pandemic affected the corporate actions space?

Baxter: You do not need to be active in the corporate actions world to see what impact COVID-19 has had. As companies assess and ensure their own position/survival it is not surprising that any deal to merge or any acquisition would stall, especially given the impact COVID-19 may also have had on the target itself and the due diligence effort required to reassess all aspects of a deal.

The cancellation of dividend payments for the same reasons made sense too.

George Harris

At the macro level, the pandemic has had an impact on the industry as a whole. There have been issuers who needed to defer their annual general meeting and approval of cash dividends – or even cancelled their dividend for 2020. And there have been beneficial owners who could not elect for an event, either because they could not access an electronic platform or when postal elections were delayed.

As for intermediary institutions, a number of organisations have not been able to rely upon offshore operations, owing to restricted access to buildings or increased pressure on reduced workforces as they prepared to work remotely. The pandemic has undoubtedly challenged the most seasoned business continuity plans and has led to very creative thinking about how to address these challenges.

In the corporate actions arena, the associated market volatility has had an impact on trading volumes with a knock-on effect on processing events, specifically around correct entitlement. And there is likely to have been a marked reduction in the volume of seasonal events, some of which have been deferred to Q4 2020 or Q1 2021.

There is also an expectation that capital-raising events may increase, particularly as organisations defend themselves against potential acquisitions. But this needs to be tempered with low interest rates and easily accessible credit to bolster balance sheets.

Operational and platform deficiencies will be the key focus of the senior management team. As well as using appropriate risk management techniques, more firms may move to trusted outsourcing partners with a strong track record in the pandemic. These providers are readily positioned to absorb and support the additional scale that organisations currently need.

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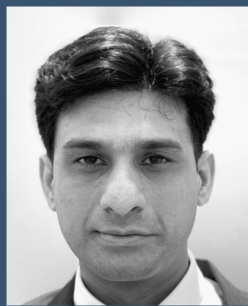

Ankush Zutshi
Head of product management, corporate actions and securities processing
IHS Markit

Although corporate action volumes for these types of events have dropped, there has been a surge in other corporate action types such as exchange offers, for example, companies looking to refinance wherever possible.

It is possible that corporate action operations teams are working harder now than they were before because complicated elective corporate actions have surged. In addition, corporate action operations teams now have to manage remotely, which for those lucky enough to have good systems in place is not such a problem, but for those that do not then it is a challenge. Suffice to say that from an operational perspective, if ever there was an event that shone a light on why corporate actions should be fully digitalised, it's COVID-19.

Taliaferro: The impact of the COVID-19 pandemic on the corporate actions space can largely be split into two categories, both of which have created uncertainty in the industry. Firstly, the pandemic has led to an influx in issuer-driven activity. Early on, we saw a high volume of events being cancelled, suspended or postponed. As the pandemic has continued, events have become more complex, and we have seen increased activist activity and creative financing.

Secondly, the pandemic has created operational challenges on various fronts. To transition to remote working, companies have had to adapt and innovate quickly. Many companies use legacy systems that were never designed for remote working, and as the pandemic spread to global proportions, companies have had to deal with the challenges that home-based and offshore resourcing presents. Given the record volatility in the stock market, these operational challenges have been compounded with the increased complexity in securities lending.

Zutshi: The recent global market volatility as a result of the pandemic has continued over an elongated period with economic impacts still evolving and impacting investor confidence. After the World Health Organisation declared COVID-19 as a pandemic, several governments and regulators recommended banks to refrain from making distributions during this period. We have seen thousands of dividend and meeting cancellations globally in the US, Europe, the Middle East,Africa and Asia Pacific across different industry sectors such as oil and gas, real estate, auto, construction, hotel and leisure. There are many event extensions across the globe with meetings accounting for the most volume and extending to later part of the year.

Apart from meetings and distributions, several subscriptions offer, rights distributions, stock splits, tender offers, and bonus issues have also seen an impact. With some panic created due to a few stock exchange closures and companies not being clear about cancellation of meeting and dividend, operations teams had to go the extra mile to track down the right data from multiple sources and closely monitor which companies are eliminating dividend payments or other events to notify client or address increasing

number updates on corporate actions and a high number of client queries.

Additionally, the industry has had to operate under business continuity planning, with most offices closed and staff still working from home because of the global lockdown. After the initial teething problems, remote working has proven to be a relative success so much so that several major organisations are exploring revisiting their operating models to incorporate greater adoption to either permanent or rotational basis. We can see more focus upon new technologies and tools that can enhance the robustness and efficiency of remote working.

But beyond that, COVID-19 and the associated remote working has also highlighted the need for financial institutions to accelerate their internal transformation programmes, such as replacing legacy platforms with market leading technology transfer agency solutions, or outsourcing non-core activities for specialist managed service providers. This would enable operations to have access to accurate data, real-time workflows, risk dashboards providing them the transparency and capability to collaborate better in order to mitigate risk, and maintain service delivery in this age of remote working.

Petiza: The initial global impact of the COVID-19 pandemic affected major industries, including airlines, manufacturing and hospitality services to name a few. As a result, most businesses worldwide adopted various measures to stay afloat and preserve capital during these uncertain times. This directly affected the corporate actions of those businesses. We saw many issuers cancel or delay payment of dividends and interest events or extend bond maturities, while there were drops in tender offers, suspensions of dividend reinvestments and an increase in bankruptcy filings. Shareholder meetings in this new environment have either been cancelled, postponed or conducted in virtual settings. Electronic submissions on voluntary corporate actions have become necessary for the safe and efficient transmission of client elections.

What has not changed is our ability to service our clients effectively amid the changes in the market as a result of the COVID-19 pandemic. We quickly implemented contingency measures to adapt to our clients' changing situations and to avoid service disruptions. We currently continue to maintain remote work status with 98 percent of our company working from home, and remain vigilant to changing circumstances.

Ignatowicz: There are little areas COVID-19 has not had its effect on. Corporate actions space is no exception. Starting with the companies as the source of corporate action events, who massively cancelled their general meetings due to a worldwide lockdown, which had an overall negative impact on corporate actions numbers this year,

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> ***Electronic submissions on voluntary corporate actions have become necessary for the safe and efficient transmission of client elections***
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> **Radoslaw Ignatowicz**

but maybe we should look at this as actually a good thing. Another issue refers to processing of corporate action events, which often require some extra documents from underlying shareholders and are not yet fully electronic. Signing documents in the lockdown situation became, all of a sudden, not a straightforward task. Even after all those months, cross-border electronic signatures might not always work.

Despite those issues, processing of corporate actions has not been massively interrupted and worked relatively smoothly in COVID time. The biggest lesson learnt is that there are still areas such as mentioned supplementary documentation handling that needs to be further enhanced to assure timely and efficient processing of the corporate actions.

What are the biggest challenges with corporate actions?

Radoslaw Ignatowicz

It very much depends on how we define complexity. I do not think there is much that can surprise us from the variety of corporate action events side. There always will be peculiarities either due to specifics of the local laws or never decreasing inventions of companies and their legal advisers.

In my opinion complexity is generated these days by regulatory changes, which have a major effect on the way we would process corporate actions such as possible redesign of the corporate actions processes and top down prescribed reaction times by the information chain to protect interest of end investors. Another connected aspect refers to gradual change of communication standard and replacement of SWIFT ISO 15022 by ISO 20022. The SRD II introduction shows clearly how messy it can become. Although applicable to proxy voting areas and disclosure of shareholders, it also has a direct and indirect effect on corporate actions space. The effect is that on go live date for SRD II, we have to deal with multiple communication standards, and it will take some time until dust settles and industry adjusts to the new set up.

One lesson from this exercise is that regulations, if they are introduced, should be precise and the European Commission should make sure their introduction is consistent across the member states, also with respect to potential conflicts with other local laws.

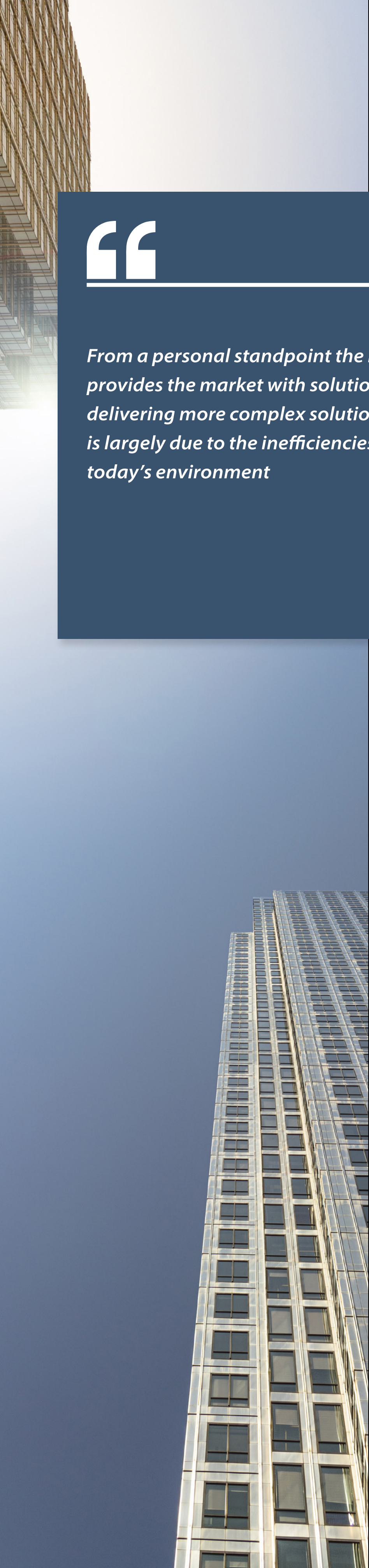
Harris: I do not think the complexity associated with the economics of a corporate action has changed in the last five to ten years.

However, there is a greater choice of infrastructural opportunities for organisations that rely on the appropriate communication vehicles to manage events, from ISO 15022 and ISO 20022 to distributed ledger technologies.

While the ISO standards are mature in usage, many emerging technologies are responding to perceived business outcomes that are yet to become fully apparent.

However, the use of machine learning, robotic processing automation (RPA) and artificial intelligence (AI) will continue to grow and allow organisations to divert their skilled resources away from larger-volume and vanilla activity to more complex activity with a higher risk margin.

This move will further reduce the costs associated with resource management in the corporate actions domain.



From a personal standpoint the industry that provides the market with solutions may be delivering more complex solutions, but that is largely due to the inefficiencies inherent in today's environment

David Baxter
Managing director
T-Scape

In addition, the ability to access the corporate action 'data lake/pool' is increasingly becoming de rigeur – allowing more clients to differentiate their services by providing a holistic, post-trade view of their portfolios and access to non-traditional data such as custodian performance or election metrics. Historically, this has been achieved through database reporting; but today, API connections are giving clients more flexible ways to access their data.

In addition to the challenges that COVID-19 has brought to the corporate actions space, we are also seeing added complexity arise from increased client requirements and regulation

Philip Taliaferro

Petiza: We have seen increased complexity in the terms and conditions of certain corporate action events and the tax consequences for those events. Additionally, there is an increased volume of cross-border transactions involving other custodians, securities registrars, depositories and transfer agents with regulations and practices that are different from Canada's. As complexities increase, it is ever more challenging for service providers to administer the corporate action. Therefore, many areas of expertise may need to be brought to bear to work through the complexities.

Baxter: There are so many challenges that need addressing within the corporate action world; it is difficult to know where to begin. That said I could start by looking at market coverage. We have a lot of volume processing over the SWIFT network, but an awful lot of individual organisations, fund managers and issuing companies. sitting outside of the network communicating with each other via email, proprietary APIs and/or portals and even fax. So challenge number one? Be more inclusive and extend the community for the benefit of all. Then perhaps follow that with a lot at standards.

ISO 15022 is the predominant standard amongst the current market participants, but it is ambiguous in places, leaving it open to interpretation which causes problems. We also have ISO 2002. It has been adopted by DTCC but not by the big volume houses, although with it being the weapon of choice for the regulator with regards SRD II shareholder identification and voting, they are being forced to come on board.

It will be interesting to see if issuers and/or their agents embrace the enhanced messages, and whether the regulation will trigger any form of migration from one ISO 15022 for other corporate actions. So standards (or lack of) would be another point of attack. Then look at some of the key aspects of the process. I previously mentioned deadline dates.

The greater the distance between making an election and the market deadline the more open we are to the election being sub optimal. And then move onto other areas impacted by corporate actions, fund pricing, securities lending, market claims to name a few and think about how they can be addressed.

From a personal standpoint the industry that provides the market with solutions may be delivering more complex solutions, but that is largely due to the inefficiencies inherent in today's environment.

Taliaferro: In addition to the challenges that COVID-19 has brought to the corporate actions space, we are also seeing added complexity arise from increased client requirements and regulation.

Clients increasingly rely on more complex trading strategies and tax considerations, driving a greater focus in these more complicated areas. Clients have also been focusing on securities lending to drive returns which adds a layer of complexity for asset servicing.

On the regulatory front, the Central Securities Depositories Regulation (CSDR) and SRD II are two pieces of regulation that are changing the landscape for our clients. Although recently delayed, changes to CSDR have led to an increased focus on settlement discipline, which is driving changes in the securities lending world. Meanwhile, SRD II requirements, which came into effect in September, will create requirements for same day notifications. This push for increased transparency will create pressure in the corporate actions space, and firms will be required to innovate quickly to meet these demands.

Ankush Zutshi

The biggest challenges in the corporate actions space emanate from the fact that even with continuous margin compression for all segments for the capital markets including custodians, brokers and their buy side clients, the costs and risks in the corporate actions space are increasing due to volumes increases, new regulations and market infrastructure changes. These factors coupled with the lack of standardisation and manual processes built around legacy technology architectures further exacerbate the risk of errors and financial losses.

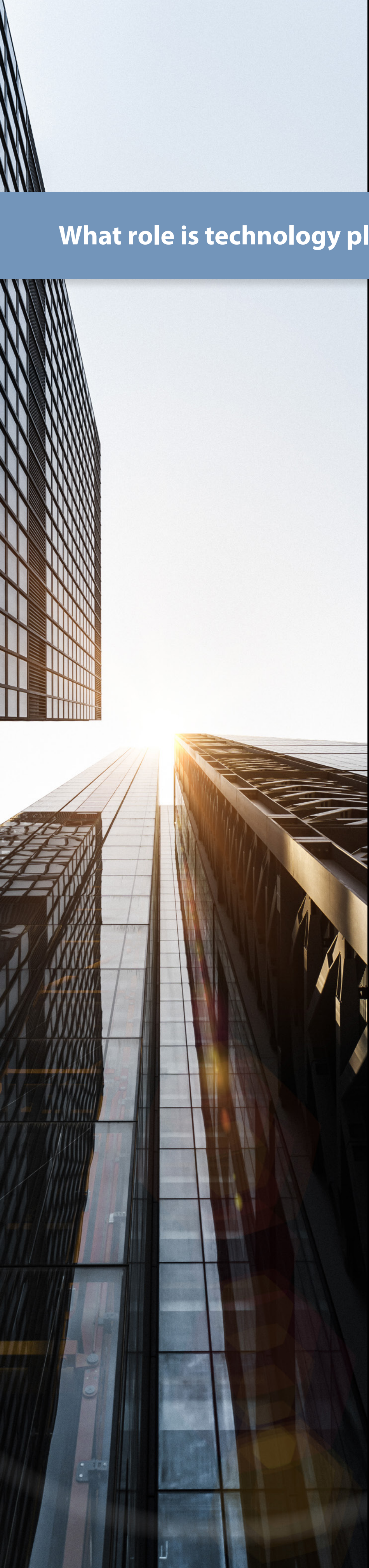
Increase in cross border holdings with trading and settlement in different locations, and investors increasing their derivative instruments and structured products exposure are some factors that have added to the necessity of tracking and compiling accurate event information and entitlements around all the underlying securities. There has also been a significant increase in the volumes and complexity of corporate events as capital markets find new and innovative ways to raise investment and governments and local tax authorities seek to recover taxation from investments via the introduction of new tax legislation.

In addition to the above challenges there has also been the introduction of several new regulations as regulators look to protect investors and maintain confidence in market integrity. We are seeing newer regulations such as SRD II increasing transparency around corporate governance and setting performance parameters by which intermediaries must pass on corporate event notifications to clients.

Market infrastructures around the world are also evolving. DTCC in the US is completing the reengineering of corporate actions processing to move to the latest ISO20022 standard. Various European market infrastructures, driven by T2S harmonisation efforts, are following suit and the ones in Asia Pacific are not far behind.

All of these changes require continuous product and technology change investments. With the growing demand from clients to provide accurate data and information on a real-time basis through modern open platforms and APIs, helping them optimise the invest decision process comes at a much higher cost to the custodians, especially the ones which are still using legacy technology architectures and that too at a time when margins in the industry have continued to be compressed.

While progress has been achieved by custodians in tackling these challenges through adoption of technology, the ability to fully optimise this investment is restrained due to other weaknesses in the investment chain who do not or cannot comply with industry reporting standards.



What role is technology playing in helping simplify corporate actions?

Ignatowicz: Technology has a significant role to play in the corporate actions processing of a custodian. It is also a game changer in the corporate action space. All previously described issues referred to the chain of actors in the process from an issuer to an owner of assets. We can logically work on making the current flow seamless and faster, fine tuning existing processes, or build the whole concept anew. Current systems evolved throughout development of the capital markets, both in terms of corporate actions variety as well as in terms of its geographical

Philip Taliaferro

We believe that technology is key to the future of corporate actions, and that there is huge value in providing a holistic view of corporate actions processing driven by modern technology. Two key areas that we've identified as key to the future of asset servicing include cloud technology and API integration.

Cloud technology will simplify corporate actions by providing a cost-effective change to existing infrastructure. In the past few years, cloud systems have become cheaper to implement and scale than legacy systems, and have developed a high level of agility and configurability. Through cloud, companies will have the ability to handle complex, high volume global trading models, and scale rapidly and grow to meet demand from new clients or markets. The ability to see on a very granular level the cost of utilising cloud encourages informed decision-making on whether to scale up or down its use, and minimises wasted capacity.

API integration with existing systems can also simplify corporate actions greatly, increasing operational efficiency to save time and reduce cost. Often, bringing data into these applications can be a very large part of client onboarding; at Broadridge, we now have standardised APIs that are supported by appropriate security which is shared during the pre-sales process. By integrating standard APIs into the corporate actions process, we have streamlined workflow for our clients, simplifying real-time data exchange and ensuring seamless alignment with their core infrastructure.

Traditionally, we have seen that asset servicing fintech has been slow to embrace the 'sandbox' approach that other tech-based industries take of rapidly demo-ing and proto-typing new technologies. This capability has been overdue, but by taking this approach we're now in a position to meet and shape client expectations.

Technology can play a very significant role in developing modern solutions to streamline corporate action processes and reduce risk

Vivian Petiza
Assistant vice president, corporate actions and Income
CIBC Mellon

expansion. This has resulted in the increased number of corporate event types but also in extension of the chain between issuer and the beneficial owner. Technology may make this distance shorter again. Distributed ledger technology (DLT) provides for such solutions, which may change the paradigm of corporate action processing.

Technology is there, however, that does not mean its implementation will be fast or easy. As in case of every situation with a large number of stakeholders, implementation of something like that requires certain consensus among the players. DLT itself is a broad concept and finding one solution and introducing one standard may be a lengthy process in itself. This can be nicely illustrated by looking at implementation of ISO 20022 standard for corporate action messages published by ISO in 2009. Despite all the time that passed, ISO 15022 format is still the main carrier of corporate action data between the players and co-existence rules between those formats limit full use of ISO 20022. Nevertheless, the change is inevitable, the big unknown is when it is going to take place and what form it would take.

Petiza: Technology can play a very significant role in developing modern solutions to streamline corporate action processes and reduce risk. Web-based applications can allow shareholders to receive corporate actions online at near real-time, prioritise their review of events, schedule reports, submit corporate action elections and view income projections. From a service provider perspective, by automating certain repetitive tasks through macros, employees can focus on more value-added functions such as validating complex events and exceptions. This can help reduce risk and cost, and ultimately enhance the overall quality of corporate actions services.

Technological advancements can also help provide service providers with the ability for straight-through processing. This can support real-time critical, time-sensitive updates to clients. The same connectivity can offer a view to the current status when issues arise, typically within the same day, setting the stage for speedy resolution. Technology can also offer flexibility by providing clients with the ability to receive communications according to the client's preference, whether it be by SWIFT, fax or online.

All in all, technology facilitates the standardisation of corporate action messages, the streamlining of corporate action information, the electronic delivery of the information to stakeholders and the speedy identification and resolution of issues.

Harris: Applied technology is key here – specifically that which can be used to deal with real-world problems when processing events. Within

Within the end-to-end corporate actions life cycle, technology must be able to deal with everything from announcement capture and entitlement, reconciliation and settlement, with appropriate oversight and reporting tools

George Harris
Senior director, master data services, product management for asset management and alternatives
FIS

> *The technology is there to help and simplify these and many more aspects of the corporate action*
>
> **David Baxter**

the end-to-end corporate actions life cycle, technology must be able to deal with everything from announcement capture and entitlement, reconciliation and settlement, with appropriate oversight and reporting tools. However, this can't be dealt in isolation: corporate actions is just one facet of post-trade management and is inherently relied upon by other parts of a client's organisation, such as investment of book of records/accounting book of records, reconciliations, post-trade compliance, collateral management or client reporting. Integrated real-time solution suites are key to satisfying the overall product offering and aren't just restricted to corporate actions.

Baxter: Technology provides a framework within which we can exchange information in structured format across networks. It enables us to develop solutions that can consume and process that data and provides us with an ability to automate and simplify many of the processes that otherwise would remain manual. From master record definition, option mapping and data cleansing right through position reconciliation, election management and the complete management of instructions from generation to status updates and beyond into entitlement calculation and settlement. The technology is there to help and simplify these and many more aspects of the corporate action process.

The efficiency of the market though is dependent upon who can access the technology. As mentioned we still have a raft of players that rely on email, spreadsheet and fax. With regard to the technology itself, it is also worth remembering that it is entirely dependent upon the data that feeds it. ISO 15022 has been around for some time now and continues to be the dominant standard used by the volume players. But it too has its limitations and remains open to interpretation.

We also have ISO 20022 and can see divergence between market participants with DTCC on an ISO 20022 path and the global custodians sticking with ISO 15022. But the divergence doesn't stop there. Look at the European directive that is SRD II. With ISO 20022 the regulator's choice for voting and shareholder disclosures, we now have a split at the corporate action level. Manually coping with this would be incredibly painful. It is the technologists, and the technology being provided, that cater for the many nuances that exist in the corporate actions world shielding end-users from such complexities to ensure the process is as simple and efficient as can be.

Zutshi: Technology is a significant contributor to the simplification of corporate actions. In response to all the challenges in corporate actions processing financial institutions have focused upon the need to continuously improve efficiency and reduce risk by investing in rules-based workflow automation technology and digitalisation tools, either building or buying market leading asset servicing solutions. These solutions facilitate increased efficiency and risk reduction by automating the end to end workflow with the aim to increase STP rates. This creates time and resources to focus upon the identification and resolution of exceptions.

Firms are increasingly leveraging cloud to lower total cost of ownership (TCO) and simplify implementation and maintenance of solutions compared to the traditional model of on-premise deployment and upfront licensing costs. The compelling economics of cloud is especially very valuable to custodians who were earlier struggling to replace their legacy technology platforms that were hindering the digital transformation efforts as it is much easier for them to now implement modern technology solutions in the market.

The increasing demand from buy side clients on self-servicing, real time information access and modern digital tools provide opportunities for custodians to leverage technologies such as APIs and open platforms. The API adoption is increasing at a rapid pace and their adoption can improve the efficiency not only around client communication but also interactions with the street including counterparties, market infrastructures and solution providers.

Given the reliance on manual touchpoints and processes, developments in new technologies such robotic process automation can help increase operational efficiencies by automating the basic repetitive tasks without impacting the technology infrastructure. Using robotics, web scraping and artificial intelligence techniques to source corporate action data directly from newswires, the web, vendors and other providers and then analyse the unstructured data in disparate formats using AI and machine learning, to normalise can help reduce the manual validation efforts and timeliness issue for corporate actions.

Intelligent automation can also be used to analyse reconciliation breaks and patterns at different steps in the corporate action lifecycle around to help operations in faster resolution of such breaks. Modern tools like natural language processing-based chatbots can assist in client servicing for basic corporate action information queries and also assist in the decision-making process with additional information.

How different do you think the corporate actions space will be in five years' time?

Zutshi: Financial institutions are already looking at newer and nimble operating models while learning to operate within the new 'abnormal'. We believe the next five years would not only see a much higher volume of corporate actions coming from emerging markets but also bring about a significant transformation of the current technology landscape and operating models.

We would witness a lot more RPA, optical character recognition, AI, and machine learning-enabled solutions automating many manual processes for operations teams. Cloud-based corporate actions workflow solutions, leveraging intelligent automation and open APIs frameworks, with lower total cost of ownership would have proliferated into financial institutions globally, even in geographies where the adoption today is low. Many of these solutions would be integrated with an ecosystem of other best in breed technology solutions where these ecosystems would be offered by today's securities services providers and new fintech.

The managed services model for the corporate actions process would have been well established where some parts of the corporate actions process would be mutualised and outsourced to managed service providers covering those specific areas.

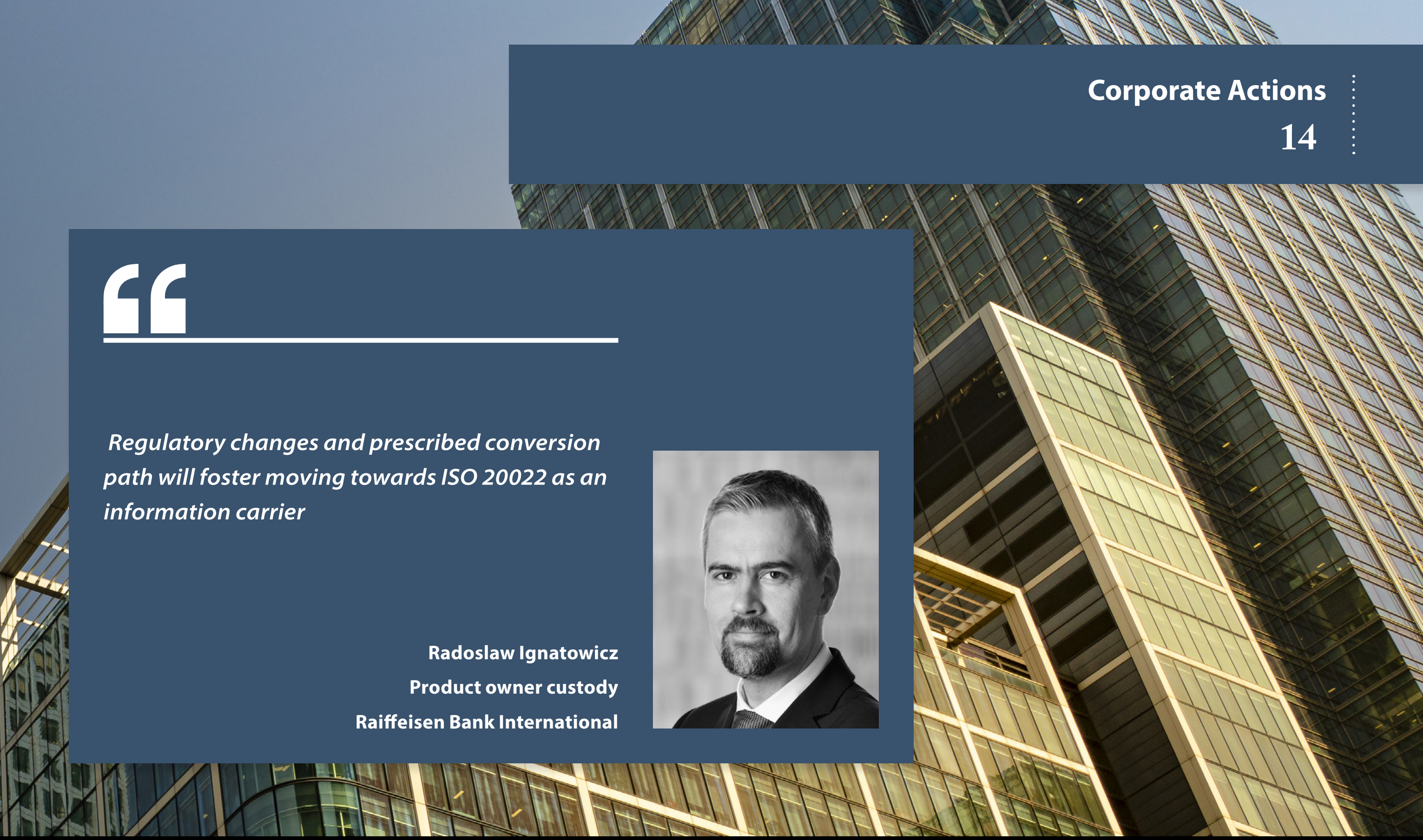
We hope that in the next five years we can see the epitome of outsourcing evolution with mutualisation and multi-tenant models whereby multiple financial institutions are able to outsource technology and operations for the end to end corporate actions operations process to an external provider in a business process-as-a-service (BPaaS) basis model.

Vivian Petiza

I believe we are already starting to see a preview of what is yet to come in the next few years for corporate actions. Industry participants are closely collaborating to harmonise market practices and adopt standards for processing corporate actions events. The issuer community is becoming more engaged around potential changes that could facilitate corporate reorganisations in a more streamlined manner. Firms are continuing to pursue automation and the streamlining of their processes, such as through STP, and they are also improving corporate action communication, all of which is expected to continue in this direction.

Many industry participants will benefit from these enhancements, both the consumers of the corporate action information and recipients of the corporate action entitlements. With STP, recipients would receive corporate actions in close to real-time, allowing them to make decisions more quickly, while service providers can mitigate operational and reputational risks and operate in a more cost-effective manner.

Further, corporate issuers can benefit from more timely and accurate communications to their stakeholders, which may help them avoid or reduce the occurrence of residual issues. The Canadian industry as a whole can benefit from higher STP rates and a more efficient flow of information, which we are on track to achieve.



Regulatory changes and prescribed conversion path will foster moving towards ISO 20022 as an information carrier

Radoslaw Ignatowicz
Product owner custody
Raiffeisen Bank International

Harris: Changes are going to be orientated around technologies that support industry normalisation and benefit all intermediaries. Breaking down traditional roles within the event life cycle is key to ensuring appropriate ownership. This could include relying on the issuer to present the de-facto announcement record, eradicating the need for intermediaries to interpret variations of the truth. In the future, custodians may only be responsible for managing the position dictating entitlement, i.e. safekeeping. Beneficial owners, meanwhile, could depend on artificial intelligence for decision making, for example, factoring market conditions into rights issues when making a choice. After all, the economics of a corporate action event are here to stay.

Baxter: I'd very much like to say that things will be significantly different and far more efficient than they are today, but experience tells me that it is unlikely to be the case. Of course technology will continue evolving at a rapid pace, but it seems the best we can offer to improve corporate actions is 'the cloud'. Which is just a variation on a theme, i.e. the same process requiring all the same touch points, the difference being you've put your data in somebody else's environment — it doesn't actually address any corporate action processing inefficiencies. Maybe we will have more success with respect to engaging with companies about issuing corporate action announcements in a way that makes for easier dissemination down the chain. I know great strides have been made in this area and it feels like we're almost there. It will certainly bring greater efficiencies across the market as a whole.

Interestingly, the SRD II is all about delivering better engagement between a company and its shareholders, which can only help the cause. To make this work though it really needs the entire market to embrace and drive such a change. From a T-Scape perspective we are pushing as hard as we can to improve things at both a client level but also for the wider market. A few years back we felt there was a need to provide a simple user friendly interface that portfolio managers, traders, credit analysts and other front-office participants could use that would provide a window through which they could view ongoing corporate actions, deliver recommendations, and ultimately make elections. We were told early on that it would be difficult to convince the front office that they should take an active role in the corporate action process. But provide them with the right application and show them the benefits of using it and all of that goes away. Which brings us to today and our latest client about to introduce another couple of hundred front office users onto iActs.

There are reasons to be bullish — ISO 15022 was released in 1999 and here we are 21 years later and still talking about how we can improve things.

Taliaferro: In five years' time, we imagine that the corporate actions space will be radically different.

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>
> **David Baxter**

We believe that the industry is at the final frontier to achieve significant STP, and in the next few years, we expect to see massive adoption in the use of cloud and AI, which will provide a strong basis from which to further automate routine human functions. As new technology is implemented, we expect that the industry will pivot from a focus on exception handling, to risk management and end-client differentiation.

Ignatowicz: We will definitely experience major changes in the messaging standard, impacting the corporate action domain toward data richer ISO 20022 format. Regulatory changes and prescribed conversion path will foster moving towards ISO 20022 as an information carrier. The final give up of 15022 standard, however, is expected no sooner than in 2028 following three years coexistence period after planned migration of majority of market players to ISO 20022 format at the end of 2025.

We will also see further digitalisation of corporate action data provision combined with official sources centralisation at least on market level, what should improve reliability, speed and accuracy of corporate action information.

In my opinion, apart from gradual transition towards a new messaging format, we will see on a larger scale another process that has been noticeable in the corporate action space already before, but it might grow in importance — outsourcing. Along with SRD II implementation we could observe a growing number of custodians outsourcing these services to third party providers specialising in proxy voting areas as well as shareholders identification.

There are anumber of potential advantages of such an approach starting from overall cost, convenience and risk reduction. Such entities can provide a full product suite accompanied by on-line applications enabling monitoring of the process. It means that you not only sort out the issue of managing information in the chain, but you may enrich your product offering with extra features to your clients, sharing the development costs of it with other users. Moreover, the more entities use it, there is a greater possibility of internalisation of information flows, what cuts the length of the processing chain and increases flow speed along with data accuracy. Variety of communication standards offered enables users to mitigate format conflicts, thus reducing cost and effort.

The same principles fostering outsourcing in proxy voting services may drive custodians' decision-making process in corporate action handling. Especially that such outsourcing entities may deliver technical solutions disrupting the way corporate actions are handled. On one hand this may pose a risk of disintermediating sub-custodians, on the other hand it is likely that banks will see opportunity in participating in those efforts as investors create completely new corporate action ecosystem. It is maybe a futuristic view for the five-year horizon, but definitely we will see more disruption in the asset servicing area going forward.