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## Roundtable

# Reference Data Review Panel Debate: Corporate Actions

Our panel of corporate actions experts debate the impact of recent developments in the market, progress towards automation and what has been holding the industry back from STP.

### What are the main impediments remaining with regards to achieving full corporate actions automation? Do these projects still struggle with regards to management buy-in?

**Lancaster:** In comparison to significant STP rates that are being realised throughout the lifecycle of a trade in trading and settlement applications, the automation of corporate actions, from announcement through election to entitlement and payment, has not yet been realised.

The main impediments to achieving automation and high STP rates are the lack of a holistic standard, the lack of harmonised market practice and the lack of enforced usage for both standards and market practice.

Standards and market practice guidelines exist, of course, but neither is complete, encompass all corporate action event types, data elements or apply to all countries, and neither is used endemically as part of the corporate actions process, from announcement to payment. The result is that the corporate actions process remains highly manual, with low STP rates and high inherent risk.

Projects and systems can support data normalisation and data distribution within a firm, but highly specialised operations resources are still needed to perform vari-

ous tasks, from data 'scrubbing' through to management of the election process. Simply getting hold of good, 'clean' data that is comprehensive is very challenging. The skill set needed to manage the data is very specific, and very deep.

These projects help, but investment will be limited as firms realise that they cannot entirely solve the problem, and they will always need to continue to employ highly skilled operational resources to manage the shortfall. In our experience, it is far easier to gain, and keep, management's attention if you can offer a solution that manages their risk by providing them with good, clean data, and also allows them to realign their resources.

**Madigan:** Corporate actions, particularly voluntary corporate actions, will always require manual intervention. The ultimate goal, therefore, is to automate the corporate actions process to the highest degree possible. Automation projects face the same challenges confronting other major initiatives. Everyone is competing for resources and, especially, budget dollars in today's uncertain economic environment. Additionally, the time involved for implementation and the availability of in-house experience and expertise are also major factors in whether an automation project will receive approval.

As with most projects, management buy-in still holds a tremendous amount of weight and, ultimately, can make or break a project. Most companies do not realise how faulty their current corporate actions processes are until they suffer a major P&L hit due to a missed or inaccurate corporate action. Fortunately, savvy senior managers are beginning to recognise and acknowl-

edge the tremendous risk involved and are allocating dollars toward automating the corporate actions process.

**Price:** It is critical for financial institutions to have access to high quality corporate actions data delivered in a format that can be seamlessly integrated into their financial systems and applications. The required tools to begin achieving corporate actions automation are available and have been for some time. The key challenge is how to close the remaining gap that exists with the acceptance of the standardisation of corporate actions messages.

Global custodians have embraced the available standards, while many of their counterparties have also realised the benefits. Most of the software vendors that offer solutions in this space have tied them to ISO 15022, and many data vendors also accept this standard as a necessary component in meeting the demands of corporate actions automation.

However, manual intervention and differences in interpretation still exist. We can be speaking the same language but still fall short when it comes to understanding a certain dialect. The same is true of the standards that we employ in the corporate actions space. The market practice groups have effectively clarified how ISO 15022 can be used, but no consensus exists regarding a standard way to implement it.

The automation of corporate actions processing requires an extensive allocation of resources. Whether a firm decides to build or buy, a big commitment needs to be made by senior management to allocate the appropriate resources toward automation. They need to show the fortitude that they are dedicated to getting the job done, understanding the costs and realising the benefits.

**Mansur:** Actually, achieving 'full corporate actions automation' may be a long way off. Indeed, there are impediments in that even the most cursory analysis of the process reveals a system that is not closed, but it is open-ended from the initiation of the process. The very notions of data scrubbing and golden copy in cor-

porate actions means there is absolutely no single, definitive source or record of the truth.

This does tend to frustrate justification of automation projects because the end is not in sight. Automation can improve things, but manual intervention is still needed. Only income events are getting close to full automation: dividends and interest.

**Eisel:** In the past few years, considerable advances were made in supporting the securities business through standards, within the scope of globalisation – particularly 'Europeanisation' in connection with the implementation of European regulations, for example: ISO 10962 Classification of Financial Instruments (CFI); ISO 6166 International securities identification numbering system (ISIN); and ISO 18774 Financial Instrument Short Name (FISN).

These standards would be of considerable benefit to the financial industry in terms of rationalisation, if their integration were not impeded by the inadequate definition of the registration authority function within the scope of each standard.

These standards are unique in that, in addition to their technical features, emphasis is placed on content in the form of tables and data developed and supplied by, for example, the National Numbering Agencies in connection with their respective roles in issuing ISINs.

The provision of specific information on copyrights and usage rights is of great importance to the users of these 'content standards', as standardisation is useless if a lack of transparency clouds the assessment of investment risk.

**Kumar:** The lack of standardised messaging across all event types and inconsistent field definitions for complex corporate actions are two major reasons why corporate actions processing still remains a largely manual effort. In addition, firms having to process more than one source of data, which are usually not of the same format, make it difficult to automatically compare data.

And when you add in current market conditions, which dictate a decrease of investments in non-essential technology for most firms, corporate actions automation still remains a lower priority.

### **What impact have globalisation and the growing complexity of products in the market had on the area of corporate actions with regards to automation?**

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**Madigan:** Increasing global corporate action volumes combined with growing complexity are a major cause for concern for financial services firms. These organisations, recognising their limitations, are seeking out industry experts to help them deal with an issue that promises only to get bigger as more and more markets open up. As a result, we are seeing organisations increasingly shift from using in-house systems to implementing third party corporate actions solutions.

Firms are looking to partner with providers that can deliver robust corporate action solutions to help them automate the process, gain efficiencies, save money, reduce risk and add value to trading and investment decisions.

**Kumar:** Competitive and regulatory drivers have increased cross border trading. This has resulted in portfolio holdings often being comprised of complex securities for investments and hedging. As a result, corporate actions are also resulting in growing complexity.

One of the major challenges globalisation creates for corporate actions is the lack of uniformity between data and markets around the world. Different markets often have local conventions, different laws and different restrictions. As a result, implementing standards for corporate actions globally poses a major challenge.

**Price:** Financial institutions need to be able to accurately interpret and understand the information being released into the marketplace. Corporate actions

notifications from issuers are generally made in free form text and in an issuer's native language. This requires a degree of interpretation in order to process the notification into a structured form – adding an element of risk to the process. Such interpretation relies on experience acquired in processing events from a variety of sources, including EDGAR filings, company press releases, dealer managers and stock exchanges.

If a custodian is operating cross border, there is the added complexity that the reporting rules are linked to local law, which may vary from region to region. The result of the same event interpreted in two different back offices can often look significantly different. In the world of corporate actions, the challenge is to extract the intended meaning from the announcements. With such a complex set of opportunities for error and misinterpretation, this is a challenge.

**Mansur:** Globalisation means that a corporation has investors cross border and means that the provider of asset services must deal with much more volume cross border. This brings many problems including translation risks when the event is announced in the language of the local market. The usual interpretation risk is amplified by the multiple sources necessary to resolve the golden copy. And the variety of local market practices, rules and regulations challenge the capabilities and skill set of a global custodian's operations.

**Lancaster:** Firms across the board, from global broker-dealers, to banks, investment managers and hedge funds, are seeking geographic and product diversity to stay competitive. The knock-on impact is that the additional corporate actions complexity needs to be managed.

To illustrate the geographic complexity, we find that it takes us five times the effort to clean up a corporate action event from outside the US than it does to clean up a US-based announcement. For the emerging markets, that factor jumps to 25 times. The extra effort is needed because these events are complex, the market practice

rules are less mature and the data is less readily available.

In addition, we see cyclic peaks and troughs reflecting the swings in volumes of events being announced by the market. Volumes can easily double, and sometimes treble, between quiet and busy periods, especially during 'European dividend season', from February through May.

The increase in product complexity also results in challenges for corporate actions. Although the effect of the corporate action on the underlying security can be established, the overall impact on structured products, such as derivatives or indices, which are structured by an individual firm, also needs to be understood, and properly represented to the market.

All of these factors need to be managed, and firms only have two choices. Either they employ additional, specialised resources and manage the complexity and undertake the effort themselves, or they outsource the effort to an experienced third party.

### How much traction has corporate actions automation gained in the market as a whole? How do the various geographies compare - the US, Europe and Asia, for example?

**Mansur:** Automation continues to gain traction and is now moving outward from the asset servicing players upstream to engage the CSDs, ICSDs and exchanges that are now moving to adopt ISO standards. This is true in the US, Europe and Asia. The attention to harmonisation and breaking down the Giovannini barriers in Europe continues to be a significant driver. Although the Asia Pacific markets have lagged somewhat in automation, the leadership of Australia, Singapore, Japan and Hong Kong is spreading to both smaller markets such as Indonesia and the emergence of what will surely be a giant market in China. Each of these markets is recognising the value of ISO standards as removing a barrier to global investment. Japan is dematerialising its

securities and has indicated the next major thrust will be in corporate actions, including capturing data directly from the issuers and their agents, a theme also emerging in China, Europe and the US.

The main impediments to achieving automation and high STP rates are the lack of a holistic standard, the lack of harmonised market practice and the lack of enforced usage for both standards and market practice.

**Price:** Corporate actions automation continues to be the focus for organisations that have yet to adopt an alternative solution to the manual process that exists today. The standardisation of corporate actions notifications through ISO 15022 messages has paved the way for firms to gain immediate efficiencies in automating some of their processes. This is particularly true in the European and Asian markets where there has been a significant increase in the use of ISO messages for communicating corporate actions. In addition, many emerging market firms do not face the issue of integrating large legacy systems when looking at implementing a corporate actions system. Overall, we will continue to see a drive toward automation, as more and more firms try and close the risk gap associated with processing corporate actions manually.

**Lancaster:** Corporate action automation is gaining in spite of, or perhaps because of, the complexity of the events with their inherent risks and client pressure to provide timely and accurate information in the most effective manner possible. Many large broker-dealers, global custodians and CSDs are in various stages of large system rewrites. Third party solution providers are increasingly trying to address the needs of smaller banks, asset managers and hedge funds. All this points to a relatively robust technology investment, even in these times of market financial tightness. In addition to market pressures, regulatory pressures (for example, Giovannini barriers 1 and 3) are also pushing the market towards greater levels of automation and stand-

ards adoption. Progress is not only occurring in the mature markets of North America, Europe and Asia, but also expanding into other major markets such as Mexico and Brazil, where the respective CSDs have also embarked on enhancing corporate action systems and market processes to meet current and future needs.

Undoubtedly, at any corporate action focused industry conference, the themes that recur most often are those of standards and improving issuer communication, not just on a local, but a global level. With this level of interest tied in with market and regulatory forces, we can truly appreciate that automating corporate actions is gaining traction, especially when there is light at the end of the tunnel.

**Kumar:** Corporate actions automation continues to be a work in progress. On the one hand, there seems to be an increase in interest in data cleansing services and 'golden copy' offerings, on the other hand, firms still struggle to determine what the best source is. ISO 15022 has made a huge impact in helping achieve corporate actions automation and is being implemented widely.

When it comes to corporate actions automation across the three major regions, the trends seem to be very similar. In all cases even though automation is rising in priority, most firms continue to have challenges processing events easily and accurately.

**Madigan:** In mature markets such as the US and Europe, data is more readily available and generally more complete. While manual intervention is still necessary, less people need to touch the data, making automation easier as some corporate action information can be fed directly into downstream systems.

As you move into Asia and other emerging markets, complications such as underdeveloped infrastructures can impede the free flowing transfer of information. This leads to more inaccuracies and data gaps which require greater hands-on attention to validate and process the information, thus making automation much more difficult.

This is why many companies are choosing to receive multi-sourced cleansed data. The more accurate and comprehensive the information you have coming in, regardless of origin, the more quickly and efficiently you can use it across an organisation.

### **Who is leading the charge within the industry with regards to championing automation in this area and how has their recent work improved the corporate actions landscape?**

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**Lancaster:** Driven by competition, cost and risk, the automation of corporate actions has long been led by the sell side, specifically, global custodians and global broker-dealers. With their need to bring efficiencies to a myriad of manual processes that connect them to external parties, clients or otherwise, the large banks were instrumental in developing messaging standards.

More recently, the growth of the asset manager and hedge fund community has continued the push for automation, driven by the same forces as the sell side, in a quest to find providers with the best services at the lowest cost.

Today, the same driving forces exist, but with new players such as data vendors and market infrastructures entering the picture. Especially, with some CSDs/ICSDs in the middle of major corporate action redevelopment programs, we are entering an age where automation and standards are being championed holistically, albeit still with the exception of issuers.

Perhaps more than ever, financial services firms of all stripes are working together on enhancing standards as a means to address these forces which, in turn, has put the spotlight on industry organisations to take leading role as the enablers of corporate action automation.

Swift, acting on behalf of ISO, has long been the primary industry organisation that has pursued corporate action standards, first with ISO 7775 messages, and now with the more comprehensive and flexible ISO 15022 data dictionary.

Acting in partnership with Swift, in pursuing the adoption and enhancement of ISO 15022, we have seen the growth of market practice groups (for example, ISITC in the US) who bring representatives of the financial services markets to the standards table.

Certainly, it has taken a few years for ISO 15022 to become a true global standard. It has had to overcome the complexities of market variance and lack of processing compatibility, even within a single market. However, the market practice groups (through work on the Event Interpretation Grid [EIG], Global Market Practice Guides and the development of an 'Official Corporate Action ID') and Swift have begun to make headway that will help bring greater efficiencies to STP.

Looking into the future with the movement to ISO 20022 messaging, greater stabilisation of global standards and raised awareness, we can turn our attention to the issuing community. By establishing what information is needed and when, the asset servicing community is in a far better place to work with issuers and their agents to provide a clear picture of what is expected from them for a dividend through to a tender offer announcement.

**Madigan:** Certainly Swift has emerged as a leader and made significant inroads in terms of developing a standard, but outside of Europe, ISO messaging is still under-utilised.

Without a regulatory body mandating and enforcing the usage of a standard, there is no incentive for firms to spend substantial funds on updating existing systems or building or purchasing new systems to accept a global data standard.

**Price:** Industry-wide, the Securities Market Practice Group (SMPG) has played a significant role in defining how ISO 15022 messages should be used given regional diversity. This clarity is exactly what the industry required, and what the standard alone cannot provide.

The direction provided by the SMPG suits the nature of the relationship between custodian and beneficial owner,

but not necessarily that of the data supplier and consumer. It is here that the Market Data Provider User Group (MDPUG) has made a significant step in the right direction by publishing a set of principles, which supplements the progress made by the SMPG.

Another development relates to which ISO standard is selected to convey corporate actions messages. The International Organisation for Standardisation had asserted that ISO 15022 would continue to be used for the foreseeable future for areas of business where it was already an established component. Now it appears that the MT564 notification format will be replaced with a MX series of messages in ISO 20022. The new ISO 20022 messages may begin to address some of the shortcomings of the current Swift messages.

**Mansur:** The SMPG and its associated national market practice groups are significant drivers of both the ISO standards and market practice. There is a cooperative relationship between ISO, Swift and the SMPG that is both mutually beneficial and of significant value to the entire industry.

The DTCC is now moving completely into ISO standardisation and Euroclear has begun addressing several gaps in standardising the relationship between issuers, their agents and the depository. Standards have been developed or are in the pipeline for issuer agent corporate actions messages, registration, market claims, and issuance messages. In the next few years, ISO 20022 messages will transform the corporate actions world with XML, a far more dynamic and more easily maintainable messaging structure.

**Kumar:** Swift and the SMPG continue to make great strides in providing solutions for corporate actions automation. The SMPG has recently introduced the EIG, which has helped the process to a large extent; however it is not mandatory that firms employ the suggested guidelines. Swift has been attempting to enforce the guidelines defined by the

SPMG but firms are not ready to comply for various reasons.

There needs to be a concentrated effort to bring data providers, solution providers, Swift and the SMPG closer together to enhance the standards and increase the adoption of the guidelines throughout the industry.

**Do you think the DTCC's recent proposals for semantic interoperability between ISO and XBRL in order to automate the issuer space are feasible?**

**Madigan:** The DTCC, by way of this initiative, is attempting to provide corporate action information from issuers in a truly electronic form. This will become increasingly difficult as one moves outside of the US into emerging markets where data is much less efficient.

It is vitally important to get issuers more engaged and involved in helping the industry move toward greater automation. This can be accomplished by inviting them to sit on the committees, industry boards and groups working to shape the global corporate actions landscape.

**Mansur:** This is still a very early stage in the discussion, but since XBRL and ISO 20022 are both XML, feasibility is a given. It is quite important that no new definitions of corporate actions are produced when issuers are engaged, whether the structure to deliver the information is XBRL or ISO 20022.

As well, it is critically important that each market does not introduce a new structure and that the global viewpoint is maintained. In reality, the ideas being discussed only deal with a portion of the process, albeit a critical aspect – the event notification.

There are other issues that will require the agents of the issuers that operate and process the event on the market to get engaged in the standardisation and automation processes. This is beneficial to not only the issuers, but to the market infrastructures, the asset servicers

and especially the investors. The time has come for including the issuers in the process that allows them to best utilise 'other people's money'.

**Kumar:** The SEC requirement to adopt XBRL for is a large step forward in automation financial reporting in the US, and nowhere is the need for automation greater than in the corporate actions space, where paper and manual processing are all too commonplace. But because this is a US-centric requirement, it is neither obvious nor inevitable that international adoption of this standard will be forthcoming, leaving US companies better automated but operating in isolation, if not a global vacuum.

Given that the desired end result of semantic interoperability between XBRL and ISO is the achievement of touchless corporate actions processing regardless of which 'language' the issuer speaks, the DTCC proposal is logical and reasonable, and as such should be feasible. And success in the initial target segment (for example, the handful of corporate actions types that are subject to SEC regulation) would logically lead to further development efforts, an expanded lexicon and greater automation.

**Lancaster:** Yes, we obviously believe XBRL is feasible and will be successful, because it attacks the root cause of the issue. The ultimate source of all corporate action announcements is the issuer, or the issuer's agent. The issuer has an obligation and a desire to effectively disseminate the corporate action to the marketplace, and this is typically achieved by issuing either a press release or a formal prospectus.

Press releases and prospectuses are physical paper documents that describe in words the underlying details of the corporate action announcement. They are written in free text, without recourse to formal standards or market practice and without the data elements being 'fielded'. This is the originating source of corporate actions risk, and this needs to be fixed.

Within the US, the regulatory body, the Securities and Exchange Commission (SEC), is enforcing the delivery of "mean-

ingful, accurate, timely, easy to use data" for the entire financial services industry. At a higher level than just corporate actions, in May 2008, the SEC, under the stewardship of chairman Cox, undertook a rule filing for the top 500 companies in the US to "field" and "electronically tag" all data elements within GAAP financial reports, using XBRL. The expectation is that this will become mandatory for all US companies by the end 2010.

Similarly, it is expected that SEC will turn its attention towards one of the largest risk areas remaining in the industry – corporate actions. To that end, the DTCC, XBRL, Swift Standards and representatives from the industry are starting to work with the SEC to ultimately mandate issuers to electronically 'field' all corporate actions data within the press release or the proxy document, aligned to the ISO standard and using the XBRL technology.

It is expected that 'plug-in' extensions that enable 'XBRL for corporate actions' will be available for Microsoft Word and other word processors. The issuer, agent or publisher will be able to simply highlight and tag all relevant data elements within MS Word as they are writing the press release or prospectus. The electronically tagged data elements are stored as machine readable fields when the document is saved as a PDF document, and these data elements can easily be extracted when the document is machine 'read'.

If achieved, this SEC requirement would ensure that all US corporate action announcements are sourced directly from the source, in machine readable format, according to the industry standard. Following this path will fundamentally change the corporate action industry. The result will be extremely high STP rates, a lower rate of manual exceptions and lower risk.

### **Will they gain traction outside of the US market? Why/not? If not, how else can issuers be involved in the automation process?**

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**Lancaster:** XBRL will have complete semantic interoperability with the global

ISO standard and could be used by any issuer, inside or outside of the US market. 'Gaining traction' within a market is likely to depend on enforcement by the local regulator, and XBRL, as a non-profit consortium of companies, organisations and government agencies, has deep representation across US, Europe and Asia. Outside of the US, there are already pockets of activity. For example, China is forging ahead using XBRL with the creation of corporate actions taxonomy for five event types.

Assuming success with the SEC for the US market, it is likely that XBRL will work with the regulators, banks, stock exchanges and industry bodies within the local markets to seek local enforcement, using the US experience as the template.

### **What impact will the plans of the European CSDs, Euroclear and Clearstream, in the issuer agent space have on the corporate actions landscape?**

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**Lancaster:** The development of ISO 20022 Issuer/Agent messages by Euroclear begins to address the need to expand corporate action automation and standards upstream to the issuer and their agents, and thereby helping improve the STP chain. The new ISO 20022 Issuer/Agent messages focus upon the communication between issuers/agents and their CSD, which can be adopted by any market missing direct messaging links between the two parties for all aspects of corporate actions processing.

With the introduction of the issuing community to standards, we can raise issuer awareness about the importance of providing electronic data for consumption by the market.

The good news for issuers is that much of the work has been done. By defining standards and the accompanying market practice documentation, issuers are provided with detailed templates about the needs of the financial services firms and their investing community.

Once we can couple the Euroclear initiative with others that are addressing issuer

driven corporate action announcements, such as the potential of XBRL, we can begin to visualise a world where the issuers themselves provide structured data electronically, not just to CSDs, but directly to their investors and all other interested parties.

**Mansur:** The addition of more automated issuer services can only add value to improve corporate actions processing. This is the last frontier for asset servicing. Hopefully the mutual benefit of engaging issuers is enough to make it happen without threat of regulatory action. I believe a lot more planning is needed but the potential exists and all eyes will be on Euroclear to see how their implementation of issuer agent messaging works beyond the fairly closed circle of former Crest players in the UK.

**Madigan:** Both Euroclear and Clearstream have announced plans to launch initiatives aimed at improving settlement times and increasing post-trade efficiency. This can only improve the corporate actions landscape by pushing the entire industry toward a 'real-time' environment.

In the world of financial markets every millisecond counts. All of us in the corporate actions industry have an obligation to ensure that we are helping our clients gain every possible advantage when it comes to their corporate actions data.

**Kumar:** The efforts of the European CSDs, Euroclear and Clearstream to raise STP rates by establishing standards for the issuance and servicing of international securities should go a long way towards the automation of corporate actions data.

With the goal being to standardise dissemination of information on public offerings and corporate actions, it is widely believed that industry-wide best practices will be in place to ensure standardised market practices in the international securities business.

### **Is greater standardisation in this area always the right answer - is there a part to**

### play for flexibility of formats? How will the planned migration from ISO 15022 to ISO 20022 impact this area?

**Lancaster:** Greater standardisation is a necessary, but not a sufficient, condition. Currently, the global standard for corporate actions is ISO 15022. We would argue that ISO 15022, in its present form, is a good start, but does not cover all the corporate action event types and does not cover all the necessary data elements to be considered complete. We believe ISO 15022 does, perhaps, 70% of the job needed.

For the standard to be complete, and, importantly, for the standard to be actually used, sweeping changes will have to take place within the industry. These changes can only be addressed by big, bold, industry-wide initiatives. This is a challenging objective, but the tide is turning.

Firstly, industry organisations such as the DTCC, Swift Standards, Market Practice Group ISITC, Sifma and key global custodians and broker-dealers are actively working with the ISO organisation to enhance ISO 15022. There are currently ~200 data elements that will need to be added to the existing standard, over the next few releases. However, this number may grow as all stakeholders identify their specific needs.

Once this work is complete, ISO 15022 will be replaced with ISO 20022. ISO 20022 will be the holistic, global standard that will be entirely based on ISO 15022 fields and structure, but will use XML messaging rather than a file-based format. The first release of ISO 20022 is currently targeted for 2010/11, and there will be a coexistence period with ISO 15022 of at least three years.

Secondly, to address the US market, DTCC is undertaking its Corporate Actions Re-engineering Initiative. This is a major, multi-year, project to rewrite all DTCC's corporate action systems, covering announcements, elections and payments. Initially, the new system will create corporate action announcements

in both ISO 15022 and XML formats, with the aim of migrating to ISO 20022.

This change is important, because it ensures that all of DTCC's participant clients, who are essentially all of the North American market, will actively use international standards. The first release is scheduled for 2010. These initiatives ensure that standardisation is global and holistic, and, at least in the North American market, that standardisation is actively used, rather than ignored.

**Mansur:** Of course greater standardisation is the right answer. And, by greater, I am thinking wider, deeper and better standardisation that is inclusive and efficient. Adoption of standards should become ubiquitous to all players, a commodity of sorts with clear disadvantages where proprietary standards are used. Standards should be adaptable and support flexibility where needed, but discarding a standard is never flexibility in the long run.

The migration and coexistence period for ISO 15022 and ISO 20022 will serve to bring many aspects of the industry into far more consensus in messaging than we have ever seen. It is already opening up the issuer side and removing barriers to interoperability. I should further serve to improve quality and consistency of messaging to accelerate straight through processing – corporate actions should become, in the next few years, where settlement and clearing messages are today.

Once the MX messages are de facto, the discussion should change from how to fix corporate actions to how to enhance the value and usefulness of the corporate event.

**Price:** While ISO 15022 is still the industry's primary focus, we are starting to see interest in ISO 20022. The industry has to be aware of the challenge involved in approaching market participants with the notion of moving to ISO 20022, given that it very recently had to undertake a lot of integration work in order to comply with ISO 15022.

Replacing MT564 with an MX series of messages raises two central issues. The

first is the effect of this announcement on the current adoption of standards in the corporate actions world.

The concern is that current projects striving to achieve greater STP may find it harder to secure continued funding given that a new corporate actions standard is now on the horizon.

The longer term effects of this potential replacement are also an issue. It may present a great opportunity to move toward real world interoperability – the opportunity to reduce the overall number of permutations to the core elements of the corporate actions messages that need to be conveyed.

**Madigan:** Standardisation makes data more efficient but without any formalised way to enforce its usage, the industry will never see full adoption rates. Flexibility and standards are contradictory so there really is no room for flexibility of formats. A standard is built upon a base platform, which will support the needs of the majority but once in the hands of end users, there will always be a need for customisation.

As the migration to ISO 20022 begins, the industry can expect issues similar to those experienced initially with 15022, including low adoption rates, mapping issues and the need to educate users on the new format. Swift will have to work through these challenges and it will take some time to fully address them.

**Kumar:** Standardisation of corporate actions data will clearly eliminate some of the obstacles to automating corporate actions. However, with ever growing complexity of investments and the natural extension to the corporate actions landscape, there will continue to be a reliance on vendor formats. Vendors such as Telekurs will continue to go a long way towards automation and there could also be a greater reliance on 'golden copy' services.

Currently, the belief is that ISO 15022 would continue to be used for the near future, but there are indications that the XML based ISO 20022 messages will start replacing the MT564s.