

An abstract graphic at the top of the page features a complex network of glowing blue lines and nodes, resembling a digital or financial network, set against a dark blue background.

A Business Case to Improve Corporate Actions Communications

Issuer to Investor: Corporate Actions



DTCC



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1 Executive Summary

Over the past 40 years, significant improvements have been made by the US financial markets that promote efficient capital markets through fast and effective electronic networks supported by book entry securities movement. While enhancing the movement of capital to the benefit of issuers and investors alike these improvements have led to a dislocation in the relationship between issuers and investors for corporate action¹ information.

The current system, with its paper-based methods for disseminating US issuer-driven corporate action announcements, is more suited to the 19th century than the 21st century. What now exists is an inconsistent process burdened with significant and unnecessary delays, risks and cost. With hundreds of thousands of corporate actions announced annually by US issuers ranging from routine dividends to more complex mergers and acquisitions, inaction will only perpetuate an inefficient process that negatively impacts the issuer's ability to deliver a clear and easily consumable message to its investors.

This paper examines these problems and recommends three actions to be taken by issuers and intermediaries (primarily custodial banks and brokers) to:

Reconnect the issuer to its investors by opening a direct and efficient channel of communication ensuring investors have certainty in the accuracy and transparency of immediately actionable corporate action data that have been sourced directly from the issuer.

The Securities and Exchange Commission (SEC) mandate for electronic, standardized disclosure of corporate financial reporting for every public company using XBRL (eXtensible Business Reporting Language) has established a pattern of disclosure for the 21st century. This paper advocates that corporate actions documentation also be tagged using XBRL technology, which is fully compatible with the global ISO² data standard used among financial intermediaries for corporate actions.

The use of a single set of technology and data standards can serve to facilitate efficiency in electronic communications from issuer to investor for corporate actions. Intermediaries will then be able to seamlessly disseminate all the resulting transactional data to investors as soon as it becomes available.

Risks with the current process

In today's corporate action announcement process, notwithstanding that most issuers (or offerors) disseminate information about corporate actions in some paper-based form (through a press release, a prospectus or otherwise), few investors consume this information in that way. Instead, most investors rely on intermediaries to provide summary information on the terms of the corporate action, frequently by "translating" the information into some form of electronic message. This creates four key risk factors:

1. **Interpretation risk:** The issuer (or offeror) typically announces the corporate action in a news release or regulatory filing, using unstructured text that must be interpreted, transformed and summarized by the financial services industry, generally with no input from the issuer on the data conveyed. Multiple messages from numerous intermediaries transmitted to the investor can result in a lack of consistent, accurate communication of the issuer message;
2. **Timing risk:** The need for manual interpretation and intervention by intermediaries results in delays in communicating information to the investor, which reduces the amount of time investors have to make informed investment decisions;
3. **Accuracy risk:** Multiple parties extracting, manually rekeying and disseminating the same information increases the potential for errors in data delivered to the investor. Often errors are not recognized until near instruction deadlines, and
4. **Significant costs in the current process:** The lack of straight-through processing (STP) throughout the corporate action chain results in cost and liability. These are sometimes absorbed directly by investors.

More frequently, they are directly absorbed by financial intermediaries, but then indirectly absorbed by investors in the form of higher fees for other services.

Recommendations

To address these issues, this paper makes three recommendations:

1. All parties involved in the processing of corporate action announcements must adopt a single set of ISO global information standards for corporate actions data, while continuing to support the current disclosure process;
2. Issuers must “tag” (insert metadata into the source document) a limited set of key corporate action information data points, found within their documents, using XBRL tags based upon the global ISO standard, and
3. Once issuers tag corporate actions information, intermediaries must seamlessly disseminate, without alteration, the issuer’s electronic version as close to real time as possible or within a timeframe as requested by the end investor.

Benefits

Implementation of all three recommendations will achieve maximum benefit and create a new paradigm that electronically connects the issuer to the investor. Through the full use of a common standard and agreed-upon market practice covering all parties in the corporate action chain, each participant in the process will benefit:

1. Retail investors will receive the key details of corporate action information as specifically identified by the issuer in a faster, more accurate and consistent manner than is common today;
2. Institutional investors will benefit from cost reduction, speed of delivery and increased certainty in the data received from multiple sources that are relied on for critical investment decisions;
3. Issuers will gain by knowing that their message is accurately conveyed in a timely manner under a transparent, standards-based process to the end investor;
4. Regulators will recognize efficiencies in the implementation of new rule changes in an existing system that efficiently connects all relevant parties. For example, a newly proposed IRS³ regulation (6045B-1) on providing corporate action cost-basis details and an event identification number by issuers can be added to the XBRL taxonomy and ISO standards as a means to effectively conform to the rule change⁴, and
5. The financial services industry will benefit from a reduction in the outlined risks and with a more streamlined process, which is likely to result in an estimated \$400 million⁵ reduction in wasted cost due to a greater than 30% improvement in straight-through processing (STP) rates.

While there are challenges to implementing these recommendations, this paper will discuss these issues and provide recommendations on how to mitigate them. A case study of the Pfizer acquisition of Wyeth in 2009 is used as an illustration.

2 Situation Analysis

The current process of moving corporate action information between issuers and investors has developed over the course of the past 30 years, through necessity rather than grand design, into one that is fragmented, highly inefficient and burdened with a great deal of risk.

Although not the focus of this business case, the corporate actions process is problematic in many other global markets, and similar recommendations could be implemented in other markets, with similar benefits.

The Issuer to Investor: Corporate Actions Initiative⁶

In December 2008, a group of interested parties, led by DTCC, SWIFT and XBRL US, began to address issues involving corporate actions announcements by initiating development of an XBRL taxonomy for corporate actions. Three stakeholder groups⁷ representing issuers, investors and intermediaries were later created to articulate the positives and negatives of moving to XBRL, based on the ISO standard for corporate actions. Some members of the stakeholder group also participated in a DTCC/SWIFT corporate action survey conducted in the fall of 2009, and results of that survey are used within this business case.

2.1 The Corporate Action Process

Corporate actions events cover a wide range of activities that the issuer, or a third party (offeror), must announce to investors, as the impact of a corporate action can be material to their investment.

In some cases, the investor may simply receive a cash payment in the form of a dividend, or additional stock in the form of a stock split or stock dividend as determined by the board of directors. Merger events can result in an exchange of the existing holding for a new security and/or a cash payment. Events may require the shareholder to provide instructions for a voluntary event (e.g., tender offer). In some cases, the event is mandatory but the issuer may provide their investors with a choice between cash and/or securities (e.g. merger with elections).

Corporate actions also encompass regularly scheduled events, such as interest payments and maturities driven by the attributes of the security itself. Regularly scheduled events are not currently within the scope of this initiative although they could be added at a later date.

2.1.1 The Corporate Action Flow

Corporate actions announcements flow among many different parties, each playing a distinct role. Connections between the parties vary with either a directed, electronic message where the parties have formalized relationships or through general, paper-based messages where the sender (the issuer) delivers their message to all investors in a real-time manner through broad dissemination.

This process is based upon a history of paper dissemination that has not adapted to the automation and electronic distribution in today's financial securities marketplace.

The SEC (Securities and Exchange Commission) has recognized that the Internet and other electronic distribution methods have a role to play in issuer public disclosure as seen in their mandate of XML-based reporting of financial statement data by all public companies⁸. Innovations and improvements that have been made in securities trading and settlement have not found their way to the arcane world of corporate actions.

"As a general matter, acceptable methods of public disclosure for purposes of Regulation FD will include press releases distributed through a widely circulated news or wire service, or announcements made through press conferences or conference calls that interested members of the public may attend or listen to either in person, by telephonic transmission, or by other electronic transmission (including use of the Internet)."

Final Rule: Selective Disclosure and Insider Trading
(<http://www.sec.gov/rules/final/33-7881.htm>)

Flow 1: US Corporate Action Flow

Issuer: The initiator of the event that impacts the issued securities

Issuer Agent: Entities that work with the issuer to prepare disclosure materials and record keeping (e.g., Information Agent and Transfer Agents)

Stock Exchange: The markets upon which the issuer's securities are listed. Depending upon the type of event the Stock Exchange could factor anywhere in the flow

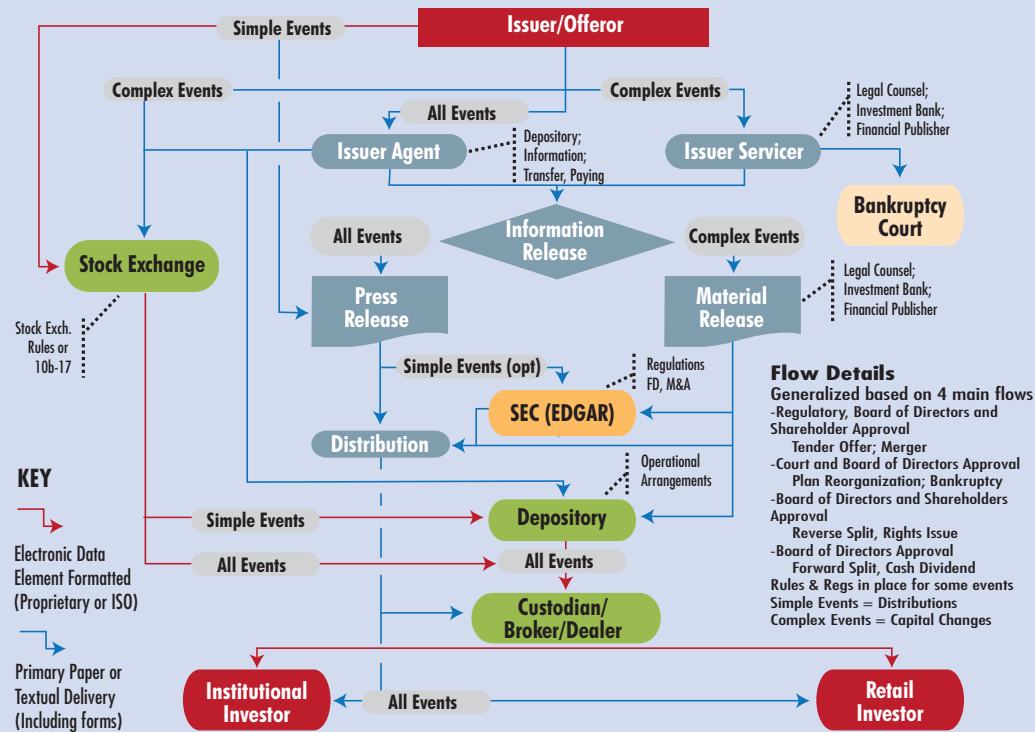
SEC: US principal issuer regulator (Securities and Exchange Commission)

Depository: The majority holder of record (CeDe & Co) for securities held on behalf of 'the street'

Street Custodian / Broker / Dealer: Agents acting on behalf of the Investing community

Institutional Investor: Asset managers acting upon behalf of investors through mutual, pension, hedge funds, etc

Individual (retail) Investor: Individual investors who hold securities in street name with a broker



Before the advent of central securities clearing and the growth of stock ownership through mutual funds and other funds, most issuers knew the beneficial owners who held their stock and could directly communicate through mail. Today, over 85% of shareholdings for a particular company are usually held in a single ‘street name’⁹(e.g., ‘CeDe & Co’ - the nominee name of the US central securities depository (DTC)¹⁰), such that the issuers are more removed from their investors than at any point in the past. As the information moves outward and downward from the issuer to the financial services industry, the need to communicate in a more automated, electronic fashion becomes increasingly important to keep investors informed in the most efficient manner possible. However, the transformation of issuer information into specific electronic data determined by the financial services industry is a process fraught with risk. This risk is multiplied due to the number of parties involved.

Flow 1 summarizes the parties involved in the corporate actions event flow in the US market and depicts the complexity that has evolved to satisfy both regulatory and market needs to ensure investors are informed to the fullest extent possible.

2.1.2 The Issuer

Public companies today follow a variety of rules and guidelines related to disclosure of corporate actions that have evolved over the past century. In the current issuer process, a relatively routine action like a dividend announcement could involve setting dividend policy, obtaining Board approval and issuing a press release each quarter. More complex events, like mergers, can require multiple documents issued over time.

The most common transmissions are press releases, regulatory filings, prospectuses and letters of transmittal. These are “free text” documents, in PDF, HTML or ASCII Text format and as such, must be read through from start to finish gathering the pieces of information needed by shareholders.

Type of Corporate Action	Delivery Mechanism for Announced Events
Mandatory, e.g. stock split, dividend, merger, interest, maturity	Press release, regulatory filing, prospectus
Choice, e.g. cash dividend with options	Press release
Voluntary, e.g. tender offer, rights offering, proxy ¹¹	Press release, prospectus and/or regulatory filing

Investor relations, legal, and finance are almost always involved in the creation of the corporate message to shareholders. Regulatory filing development generally requires at least 3-5 individuals, and occasionally, up to as many as 10 or more for larger transactions.

Message Delivery	Issuer Department Responsible	Issuer Departments Involved in Review
Press release	Communications, Investor Relations	Finance, Legal
Regulatory Filing	Legal	Finance, Investor Relations
Prospectus	Legal	Finance
Letter of Transmittal	Legal	

The issuer’s message follows no standard on what information to include and how it should be structured beyond general filing requirements that are focused on content. The issuers themselves often rely on multiple outside parties to help develop the process and deliver that message. The lack of a standard and simplified presentation of major corporate action events, and the infrequent occurrence of corporate actions events, results in inconsistent communication to investors, which can negatively affect investment decisions. The goal of standardizing both the process and the content is not to force the market into the use of a cookie-cutter template, but to normalize key data needed for event information to flow freely, accurately and in a timely fashion from issuer to investor.

Once the event is announced with the appropriate level of disclosure, most of the issuer’s work is done. All the hours of preparation work lead up to the point of a public filing through EDGAR¹², and a press release and/or announcement on the issuer’s website. There is little awareness among issuers of the downstream process once the documents leave their domain.

2.1.3 The Agents

Complex corporate actions require the involvement of organizations that facilitate the creation and dissemination of information to shareholders. In the US, filing agents or financial publishers are employed to help create the documents for filing with the SEC, especially if not done by the issuer alone, and/or to create the material that is provided to the information agent and/or proxy solicitor for dissemination. The issuer or agents format regulatory filings into EDGAR, HTML or ASCII Text for SEC submission, a process that can take as little as a few hours or several days, depending on complexity.

Commercial wire services issue thousands of press releases related to corporate actions activities. One news-wire service estimated that in 2009 over 13,000 releases were sent out for acquisitions or mergers, 10,000 dividend announcements, and 250 stock split announcements, among others. Given the financial crisis in 2009, these figures were down substantially from the prior year.

Transfer agents manage shareholder accounts and transactions, processing investor mailings and responding to questions. The transfer agent creates, if needed, a Letter of Transmittal for events where action is required of the shareholder. The Letter of Transmittal summarizes facts about the event, why it should receive the shareholder's consideration, and what the shareholder should do. The Letter of Transmittal can take 3-5 FTEs (full time equivalents) to prepare. Once completed, it is mailed to registered owners. The transfer agent typically receives queries from up to 30% of the shareholder base, often asking how to fill out the Letter of Transmittal.

Companies also hire an information agent for proxy-related corporate actions (such firms are often called "information agent" in tender/exchange offers and "proxy solicitors" in a proxy solicitation for a corporate action). The information agent analyzes the shareholder base, makes recommendations on the communications program to various shareholder constituencies, determines the quantity of shareholders in registered name, employee plans and in 'street name', analyzes the mix of institutional/individual owners in a shareholder profile analysis and gauges expected voting patterns. Working with the company's legal department and corporate secretary, the information agent develops strategies for vote solicitation through shareholder outreach. The information agent is also responsible for the 'street' mailing of the proxy materials to brokers, banks and to proxy agents. Brokers that do not mail to their clients themselves typically use proxy agents for those services.

The company's stock market disseminates information related to trading and the registering of shares. For the NYSE Euronext (NYSE), that information is delivered through their subscriber-based Market Data Site, which is accessed by data intermediaries and brokers. The stock market often consults with the company about the message to be conveyed, and it closely follows each corporate action.

The NYSE publishes an Information Notice providing a summary of the transaction, including terms, trading information & anticipated closing date (if available). In addition, when a suspension or admission to trading is involved, Ticker Notices are issued several times in advance of the anticipated effective date and when the transaction has closed.

Central Securities Depositories (CSDs) were created to settle trades in support of maintaining stable financial markets. Along with a responsibility for clearing and settling trades, a CSD manages the corporate action elections and payments to and from the issuer on behalf of the intermediaries. Although the US CSD, DTC, may assist issuers and their agents as the corporate action is being crafted, the event details are taken from the issuers' written materials in a similar fashion to other parties. With a vast securities portfolio to manage, DTC employs staff to manually verify that event details such as rates, dates and terms are correctly interpreted and input into its database. Once entered, along with any specific DTC event processing details, the information electronically flows down to their participants (intermediaries) for their action.

2.1.4 The Intermediaries

Brokers and custodial banks play a pivotal role in providing asset servicing to retail investors and the investment management community that holds securities for institutional investors such as mutual, hedge and pension funds. Corporate actions processing is a major part of the role played by the intermediaries, and one that is more manual and complicated than other activities, e.g., trading and settlement.

On any given day, intermediaries receive many corporate action announcements from: CSDs, data vendors, and local custodians, throughout the world. Depending upon the type of event, the information must be validated at differing levels to ensure that the data processed and passed on to clients (the investors) is complete and accurate. This validation process often requires a comparison back to the issuer's material, especially for the more complicated high risk events, such as tenders and mergers, where the interpretation risk is greatest.

2.1.5 The Investor

The intermediaries and investment managers, who act on behalf of the investor, must further account for and process the events on securities held in 'street name'. Retail (individual) investors hold around 25%¹³ of the investments in the US market; to explain the concerns of a retail investor, this paper includes feedback from the brokers that support retail accounts. In discussions with two retail broker customer services groups, a picture begins to emerge which shows that the flow of information to the individual investor¹⁴ is often inefficient, leading to poor customer service and possibly a lost investment opportunity compared to professional, institutional investors.

Today, retail investors are accustomed to real-time information delivered over the Internet and now expect information within seconds after announcement by the issuer. However, due to the many parties involved in the com-

munication chain, latency is introduced that impedes the issuer's timely flow of messages to the actual beneficial owner. This is evidenced by the types of questions the retail brokers receive after a press release – questions such as:

- Why is this event happening?
- Who authorized the event?
- What/where is the proxy?
- I received this book (prospectus/proxy statement, etc) but what does it mean?
- Can you summarize the event for me?
- Have I interpreted the event correctly?
- What are they offering and what should I do?

Institutional investors represent the bulk of the investment within the US market. Although a great deal of work is undertaken by the investment managers operations team ('back office'), who manage the flow of information from custodial banks, the portfolio managers and their analyst teams will rely almost exclusively upon information released by issuers. With the resources at hand and urgent need to be aware of and account for a corporate action, the 'front office' subscribes to commercial vendors who pull and distribute the issuers' EDGAR filings (primary SEC filings include: S3, S4, 424, 425 and 8K) and press releases in real-time.

The analyst team is under great pressure to digest a lot of information quickly, which then needs to be conveyed to the portfolio manager with recommendations to trade or not around the announcement date.

Typically, the analyst teams at large institutional investment management firms are active participants in issuer conference calls and hold follow-up calls with executives of the companies undergoing a corporate action event. In fact, where the fund holds a large position, they may receive calls from the issuer directly.

The analyst team will continue to monitor the stock price post announcement date to check if it is in line with the event. The analyst team is looking for key information, including:

- What is the deal?
- What are the terms?
- What tax information is needed?
- What are the security and market restrictions?
- What are the market variants if the company is listed on more than one exchange?
- What are the risk factors as determined by the issuer (i.e. conditions on the event)?
- What are the proration details?
- What will be the offer price?

A major retail broker relies upon the issuer's information as the 'golden source' due to lawyers having reviewed the disclosures. This raised the question from clients that *"if the issuer information is the 'golden copy', then why have you not sent it to us within 30 minutes of its release?"*

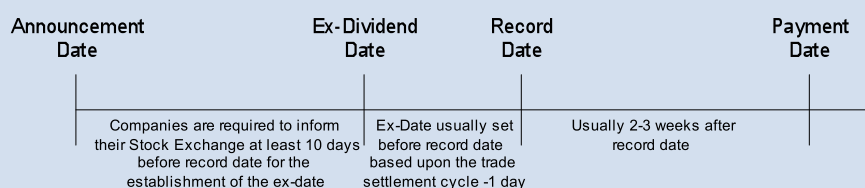
2.2 Attributes of a Corporate Action

There are over 40 US corporate action event types that are either announced by the issuer or offeror or based upon the security's own terms (especially in the case of bonds). The general practice within the financial services industry is to keep the event type name the same as that used by the issuer or offeror, although there are differences that in part contribute towards the risk in interpretation.

This business case will not detail all the event types but to illustrate some of the complexities faced in processing an event, figures 1-3 indicate how the financial services industry categorizes events and how some events can spread over many months:

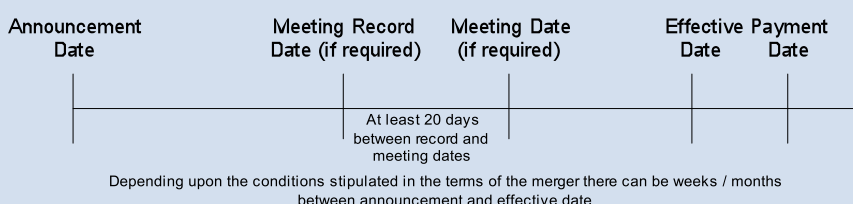
1. **Distributions:** The issuer makes a payment that is mostly in the form of additional shares (e.g., stock dividend or stock split) or cash (e.g., cash dividend or interest payment) (figure 1). Distributions usually have a timeline fixed near time of announcement.

Figure 1: Distribution with regular timeline



2. **Reorganizations:** The issuer undergoes a major restructuring (e.g., merger or consolidation), which can take months between announcement and effective dates (figure 2).

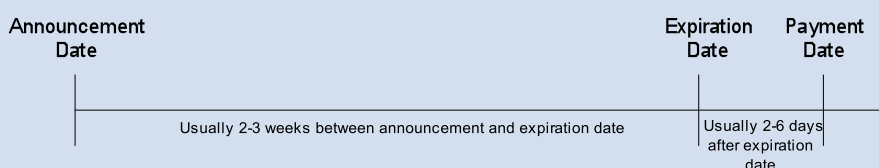
Figure 2: Mandatory Merger with extended timeline



In other reorganization events, the issuer or an offeror will offer to buy back securities from the investor rather than purchase on the open market (e.g., tender). These events are generally active for a shorter period of time and require participation instructions from the investor (figure 3). Short timelines for voluntary events are especially challenging as the information must be communicated to investors as quickly and accurately as possible. The timeline is usually fixed near time of announcement but can be extended if the issuer/offeror does not receive the required amount of shares tendered.

3. **Redemptions:** The bond holder receives a repayment of cash upon maturity date of the bond or earlier if the bonds are called by the issuer.

Figure 3: Tender usually has a short timeframe



Regardless of event type, categorization or whether the event is mandatory or voluntary (or a mix of both), the financial services industry breaks down the corporate action event information into groups of data. The table below provides a simplified version of the data structure for illustration purposes.

Data Group	Data Relationship	Content
General Event Details	Parent level	Type of event is announced by the issuer. Communication includes key dates concerning the event, e.g., effective date, record date.
Event Options	One or more options per event	Explanation of options for shareholders, if any, e.g., for a merger the holder may have the choice of 'cash' or 'shares'. Also includes key dates, e.g., expiration date.
Event Rates	One or more rates per option	The amount of 'cash' or 'shares' the holder will receive in entitlement. Also includes key dates, e.g., payment date.
General Terms and Restrictions	General Event Details	Comments provided around the event that may not fit with data formatted fields and restrictions that may be placed upon the event, e.g., state or country residency of the holder.

2.3 Regulatory Framework

A patchwork of regulations and common practices has evolved over the years to cover those activities that are generally classified as corporate actions. There is a variety of regulatory forms that issuers must create and submit, which can be accessed by intermediaries and investors. In some cases, however, there is no clear guidance as to which forms to use or what information to provide. Issuers provide information pertaining to a corporate action based on what they believe a 'reasonable investor' would expect to receive.

For example, when an issuer is engaged in a merger where new shares are issued, the merger agreement can be included in the new issuance filing, or in the proxy statement, or as part of a regular Form 8-K. While the reasons for filings may be historical, there is duplication and redundancy in these filings along with inconsistency in how they are created. As a consequence, intermediaries must review an extensive list (see table below for a selection of forms, not including amendments, reviewed) of SEC forms. This process is cumbersome, time consuming and can be prone to error. Labels for regulatory filings are often not clear, and it is not obvious which filings are relevant to a particular corporate action.

SEC Form ¹⁵	Form Name
6-K	Current report of foreign issuer pursuant to Rules 13a16 and 15d-16
8-K	Current report filing
DEFM14C	Definitive information statement relating to merger or acquisition
DEFR14C	Definitive revised information statement materials
PREN14A	Preliminary proxy statement filed by non-management
SC 13E3	Schedule filed to report going private transactions
SC 13E4	Issuer tender offer statement filed pursuant to Rule 13(e)(4) by foreign issuers
SC TO-C	Written communication relating to an issuer or third party tender offer
SC TO-I	Issuer tender offer statement
SC TO-T	Third party tender offer statement
S-4	Registration of securities issued in business combination transactions
SC 13D	Schedule filed to report acquisition of beneficial ownership of 5% or more of a class of equity securities
SC 14D9	Tender offer solicitation / recommendation statements filed under Rule 14-d9
SC 14D1	Third party tender offer statement filed pursuant to Rule 14d-1(b) by foreign issuers
SC 14D1F	Third party tender offer statement filed pursuant to Rule 14d-1(b) by foreign issuers

SEC Form ¹⁵	Form Name
SC 14D9F	Solicitation/recommendation statement pursuant to Section 14(d)(4) of the Securities Exchange Act of 1934 and Rules 14d-1(b) and 14e-2(c) by foreign issuers
424B1-8	Prospectus filed pursuant to Rule 424(b)(1)-(8)
425	Filing under Securities Act Rule 425 of certain prospectuses and communications in connection with business combination transactions

2.4 Size of the Market

With the growth in the financial markets and the number of companies listed on stock exchanges (up 41% globally to around 45,000 in the last decade¹⁶), the volume of corporate actions events is likely to grow. There are approximately 350,000 corporate actions for announced events on equities and bonds¹⁷ disseminated each year by publicly traded companies and other issuers or offerors in the US. This alone represents about 50% of corporate actions announced globally. Most of these announcements still require many manual steps, making the process error-prone, time-consuming and costly. Over the years, these issues have had a negative impact on investors across the financial community. The number of events announced and communicated is significant, but when multiplied by the number of updates and the number of organizations involved, message volume increases even more dramatically.

Tables 1 and 2 extrapolate results from the DTCC/SWIFT corporate action survey to estimate the volume of messages communicated based upon the number of events and associated updates. According to the survey intermediaries on average processed over 277,000 mandatory events per year. With an average of three updates to the original issuer message, this results in about 3.3 million messages. Combined with choice/voluntary and other events, the surveyed intermediaries handle over 4.5 million separate messages per year. Similar analysis for surveyed investment managers indicates that they deal with more than 4.4 million messages per year.

Table 1: Estimated events and message volume for U.S. Intermediaries

Volume of unique events			Potential received announcement messages		
Average volume of unique events per year	Domestic volumes	Non-domestic volumes	Average announcement plus update messages per event	Potential message volume for one data source	Potential message volume for 3 data sources
Mandatory	227,167	51,600	1+3=4	1,115,067	3,345,200
Choice / Voluntary	16,050	19,950	1+3=4	144,000	432,000
Other	63,000		1+3=4	252,000	756,000
			Potential Message Volume	1,511,067	4,533,200

Source: DTCC / SWIFT corporate action survey

Table 2: Estimated events and message volume for U.S. Investment Managers

Volume of unique events			Potential received announcement messages		
Average volume of unique events per year	Domestic volumes	Non-domestic volumes	Average announcement plus update messages per event	Message volume for one custodian / data source	Message volume for 40 custodians / data sources
Mandatory	12,000	12,000	1+3=4	96,000	3,840,000
Choice	400	1,000	1+4=5	7,000	280,000
Voluntary	500	700	1+5=6	7,200	288,000
			Potential Message Volume	110,200	4,408,000

Source: DTCC / SWIFT corporate action survey

2.5 The Growth of Independent Standards and Market Practice

Corporate actions flow through a diverse array of entities, each operating within a specific sphere of influence. Although there are many attempts at improvement, they have been limited in effect. For example, there is a long-standing and extensive interaction among intermediaries to develop corporate actions standards with limited but growing investor engagement. The community of issuers and their agents have generally remained independent for almost all efforts at corporate actions standardization, and largely engaged only when driven by regulation. When this disparate standardization is combined with the current system that relies on paper, multi-party interpretation and manual re-input of data, the result is a disproportionate and largely unbalanced accumulation of risk and cost.

As markets become more complex and more dependent upon electronic communication, there is now an acute need to consistently use standards that are developed by and for all parties. Standards for content (i.e., which data points are collected) and process (i.e., how data is categorized and formatted) are equally important. Only with the consistent application of standards will the information become more functional and computer-readable for all the communicating parties and thus more meaningful to the business. And only with standards can risk and unnecessary cost be removed from the system.

- **Market Standards:** The global financial services industry uses International Organization for Standardization (ISO) standards for corporate action messages. The standard is supported by an active market practice community that draws experts from around the globe to create, validate and maintain the standard. The first iteration of interbank messaging standards for corporate actions was issued in 1984 under the standard known as ISO 7775, followed by ISO 15022 in 1998. In January 2010, SWIFT, in its official ISO role as Registration Authority for the ISO 20022 standard, released the first version of the corporate actions messages in the ISO 20022 standard. Over the next few years, the ISO 15022 and ISO 20022 standards for the corporate actions business process will co-exist, until a point is reached when the financial services industry agrees to retire ISO 15022. Unlike ISO 15022, ISO 20022 is a business-model-based standard process and data dictionary for the development of messages that can support different messaging syntaxes, including XML.
- **Regulator Standards:** The SEC has established some data standards for corporate action events, for example, within schedule TO (Item 1004)¹⁸ although the content is limited (e.g., type of event, stock rate and cash rate) and some of these details are not consistently passed down by the intermediaries (e.g., accounting treatment of the transaction and federal income tax consequences). However, by either expanding the set of data elements or referring to ISO standards and market practice, there is an opportunity to push the adoption of standards beyond where it is today in the regulatory environment.

2.6 Corporate Action XBRL Taxonomy

XBRL is a technology gaining widespread adoption for corporate financial and regulatory reporting. XBRL is a technology for tagging documents or reports and it has recently been mandated by the SEC for quarterly US GAAP reporting. All public companies in the US are now required to file their quarterly reports using XBRL in a program rolling out over a 3-year period. The SEC mandated the use of XBRL for public company reporting after conducting a voluntary XBRL filing program to evaluate the costs and benefits of the requirement.

XBRL is a standard that promotes transparency and accountability. It can be used by regulators to perform oversight functions more effectively and efficiently, and by reporting entities and end consumers to streamline processes and ensure greater accuracy and functionality. XBRL makes data for investment decisions more transparent, more accurate, and easier to use because:

- **XBRL relies on XML tags.** Tags give data context and can include the name of the element itself, its definition, date, etc.;
- **The standard is developed and driven by the industry that will use it.** Industry representation is key to agree upon the terms and definitions for a reporting application and establish a standard that all parties can use, and

- **Data items can be added to explain unique situations.** Issuers can add ‘extensions’, which are new elements, to reflect information they deem important that is not already built into the taxonomy. Intermediaries can add extensions to report data that they typically add in to send on to their clients. Non-US jurisdictions can add extensions to reflect regulatory requirements in their home country that differ from the basic ISO 20022 data elements. Both taxonomy elements and extensions can be text or numeric, so a wide variety of information can be accommodated.

XBRL US developed the terms for US GAAP reporting by bringing together the accounting industry, regulators, analysts, investors, software vendors and public companies in XBRL US Labs, its research and development arm. The end result is computer-readable data that means less chance for errors because information is not rekeyed and can be taken directly from the source, e.g., the public company or other reporting entity. Machine-readable data allows for faster analysis and permits large volumes of data to be extracted and used more easily.

The corporate actions taxonomy is also being developed by XBRL US Labs and uses the same management tool used for US GAAP development. The two digital dictionaries share some of the same detailed data.

Concepts (the XBRL term for data elements) used in the taxonomy were based on those available in ISO 20022. Data elements that are specific to DTC and the US market were added to accommodate more reporting situations. The corporate actions taxonomy is composed of roughly 200 concepts covering over 40 different actions. Each separate action may use 20-40 of these concepts.

The taxonomy allows easy navigation for the issuer by using multiple entry points. Software tools that work with the taxonomy can pose a series of questions to an issuer related to the entry points, e.g., event type (merger, dividend), country where the security is listed, type of security (e.g., equity, bond), and need for election. The taxonomy is designed such that issuers will be presented with only the concepts that are appropriate for a specific scenario.

A unique identifier is also included in the taxonomy so that each corporate action can be more easily tracked by intermediaries and investors alike. Software tools on the market today for creation and analytics can be adapted to work with this taxonomy. In addition, a style sheet (XSLT) will be made publicly available to execute message conversion (rearrange elements) from an XBRL instance to create an ISO 20022 Corporate Action Notification message in a matter of seconds.

The taxonomy draft will be completed in the third quarter of 2010, and it will be published for public review for a 90 day period. During that time, stakeholders from all areas will be encouraged and actively recruited to review and provide comment. All comments will be considered for possible incorporation back into the taxonomy.

Once the comments are incorporated, the final release will be published on the XBRL US website¹⁹. Ongoing support and maintenance of the taxonomy, with associated changes in the ISO 20022 data dictionary, will be critical to ensure that industry-specific changes over time are reflected. As issuers and others add extension elements, this information will be captured and reviewed to determine if it should be added to future releases. If multiple issuers add the same kind of extensions into the taxonomy, these could be tags that many issuers want to use and they could be made permanent parts of the taxonomy.

Benefits from the implementation of the XBRL taxonomy and modifications to the existing process stretch beyond the mechanics to other areas, such as:

- Provides issuers with guidance as to what information is needed by the investing community;
- Potentially helps level the playing field between institutional and retail investor, and
- Allows investors to receive specific information deemed important by the issuer, and therefore, avoids flooding the investor with many interpretations of the same event.

2.7 An Ever Changing Landscape

Corporate actions cover a wide spectrum of activities and parties, and as companies and markets continue to evolve, corporate actions processing will continue to become more complex. Whether due to economic cycles, company changes or regulatory requirements, many factors influence the frequency and complexity of corporate actions. A coordinated approach between all parties is necessary.

The introduction of the US Internal Revenue Service’s proposed requirements for ‘cost basis’ provides a good illustration of how the landscape can rapidly change and how the lack of electronic STP causes the industry to react

in a piecemeal fashion. Starting in 2011, ‘cost basis’ information, such as type of or nature of organizational action, the date of the action and an identification number, will be required by issuers for major corporate action events. Within an STP environment, supported by XBRL, the industry’s response to this change could be as straightforward as adding additional data elements to an existing XBRL taxonomy, along with associated modifications to the ISO 20022 data dictionary ensuring all parties are able to receive, understand and process the new information. Given the current process, the industry response to accommodate this change will likely be to manually re-engineer existing activities, introducing yet more complexity into an already convoluted process. These kinds of workarounds add more cost and more risk into the system.

2.8 Going Global

Significant proportions of the holdings in many markets are cross-border and foreign-held. A market’s strength and viability for foreign investment is based not only on efficient trading and settlement, but also on asset servicing that encourages confidence and long-term investment through transparency into corporate activities. SWIFT has worked for many years with ISO and the global financial communities to ensure solid standards are deployed to support effective cross-border investment and servicing.

Most global market infrastructures are also committed to ISO messages. But again, this commitment is from the intermediary and investor community and there is need to engage the issuer in the process. The problems that have been identified in the US are common throughout the world. With the significant uptake of XBRL for corporate financial, tax, and regulatory reporting in more than 30 countries, moving to XBRL for corporate actions is widely perceived as a logical next step.

The problem of translating regulatory filings into English to convey information to global investors is also a significant issue in many countries. XBRL presentation labels in one language can be represented in multiple languages. This can ease the distribution of corporate action information to investors in different countries. A taxonomy created in the US will have English-language labels and definitions, but labels for the concepts could be presented in French or Chinese or any other language.

The flexibility of XBRL also supports market practice variability from country to country, and provides more than a standard with embedded templates based on industry definitions that fit the regulatory requirements of each market.

SWIFT has actively engaged several markets in dialogue around the application of XBRL to corporate actions data capture at the source from issuers and their agents. These markets, in turn, are monitoring the US engagement and development of the corporate action taxonomy to assess the US success as well as the perceived and real benefit if adopted in their own market. This includes markets in Europe, Japan, China, Australia, and South Africa, among others.

3 The Problem

The existing corporate actions process has evolved over the past several decades. Issuer actions have been driven by regulations and guidelines from the self-regulatory organizations and the SEC, and by best practices developed by public companies. There are no clear rules around what must be conveyed about a corporate action. This can result in a lack of consistency in the process followed and sometimes even in the information distributed for complex events.

In the two acquisition cases reviewed in preparation for this paper, Pfizer issued more than 2,800 pages of regulatory filings concerning its pending acquisition of Wyeth; AGL Resources issued 53 pages of regulatory filings concerning its acquisition of NUI Corporation. Pfizer issued ten press releases over the course of the year. AGL Resources issued an initial release announcing the proposed acquisition in July 2004; the Agreement and Plan of Merger was submitted to the SEC in August and a final release announcing the completion of the deal was issued in November.

Corporate actions can also be quite unique with differing approval needs and regulatory jurisdictions. AGL Resources needed regulatory approval from the New Jersey Board of Public Utilities before their deal could go through. Pfizer required approval from five international jurisdictions before their acquisition could move ahead.

Intermediaries and investors have responded to their own need for more structure and automation by moving towards an ISO standard for corporate actions. The ISO 15022 standard, and progressively the ISO 20022, is actively used by the financial services industry for corporate actions information. There has been little dialogue, however, between issuers and the downstream community that consumes this information. Issuers do not follow the ISO standard and the messages they deliver are “free text”.

A holistic, paradigm-shifting approach to how corporate actions are announced is critical to ensure that all parties receive and are able to act on the same information in as near as possible to the same time. Today’s system is manually intensive, risk prone and subject to a patchwork of independent fixes that leaves all parties unsatisfied:

- **Issuers** are unaware that once their message leaves their domain, the data needed by shareholders are often difficult to extract, which does not lead to sound decision-making;
- **The financial services industry**, as the link between issuers and investors, is under increasing pressure to reduce operational risks and processing costs and has competing demands for resources and investments, and
- **Investors** do not receive the timely and accurate service they need to manage their assets.

3.1 Interpretation Risk

Intermediaries have always worked within the confines of what the issuer delivers, and today, they interpret and (re)key the free text documents that public companies disseminate in a costly game of “telephone” that can result in inaccuracies and lack of certainty. For example, DTC issued four notifications to their subscriber base related to the Pfizer acquisition, extracting a total of 11 pieces of data distributed through four separate notifications. These data points, including merger rate, cash rate and security rate, were pulled from the 24 regulatory filings and the ten press releases issued by Pfizer about the acquisition. To extract this information, DTC employees read through the public company documents and manually enter key points into its database. The NYSE issued a summary Information Notice and a Ticker Notice, including such elements as trade suspension date and ticker.

Intermediaries may rely on the information transmitted by DTC, or they may engage staff that performs a similar function, literally reading, interpreting and manually keying in information from the original issuer document. Intermediaries then forward these summaries, which can contain up to 30 data points, to investors. Commercial data vendors also transmit corporate actions data to investment managers and intermediaries, which adds further data points that requires reconciliation by the receiving party.

The end result is significant interpretation and transformation risk built into the system, which leads to a greater chance of inaccuracies. In an attempt to compensate, investment managers typically purchase and review multiple sources of the same information to see if there is a “match” with multiple feeds as well as data received from their custodial banks. A further complexity is the lack of a corporate action event ID that clearly identifies the

specific event and is available to all parties. Without such a single reference point, reconciliation of event information received from many parties becomes problematic. Ultimately, investment managers should be able to focus on the merits of a particular event without the uncertainty created by multiple interpretations of the narrative.

3.2 Timing Risk

STP, the automated, electronic delivery and use of information from issuer to investor, is not the norm in corporate actions, even of mandatory events. Among investment managers surveyed, STP was possible for only 51% of mandatory events, and 16% of voluntary events. The need for manual intervention, conducted by different intermediaries, results in processing delays, and can result in an inconsistency between the timing of information received by one investor over another. Decisions required by a corporate action are often time-sensitive, and a significant amount of time is spent collecting and verifying data, and clarifying the intent of the issuer before the investment manager is certain of the message conveyed. If an investor has sufficient time to digest the information and the intent of the information is clear, investors are more likely to participate.

The announcement of a corporate action can also have a meaningful impact on the market price of the underlying security as highlighted in a report from Oxera Ltd., “In general, the strongest effect is observed on the date on which the corporate action is announced, although record dates and ex dates are also often associated with significant increases in share price volatility and trading activity.”²⁰ Those investors that do not have access to the same information at the same time are at a clear disadvantage.

3.3 Accuracy Risk

Today’s corporate actions process gives the issuer less control over the message that is ultimately conveyed to shareholders because of the need for multiple intermediaries. It is in the issuer’s best interest to send consistent, transparent data that accurately conveys the intent of the company.

Because the retail investor typically receives information that has been summarized by intermediaries, it is unlikely that they are able to pick up on the nuances conveyed by the issuer in their original documents. Research indicates that issuers have little knowledge of the downstream process once the message leaves their domain, and they are unaware that their materials are being distilled into smaller chunks of data before they arrive at the shareholder’s inbox.

One broker dealer noted that “We often do not know if the client understands a voluntary event until we have received an election, at which point there is little time to uncover information discrepancy due to the need to process the election before the event expires.”

3.4 Significant Costs in the Current Process

In addition to the interpretation and accuracy risks as noted above, there are absolute costs associated with the need to hire additional staff by intermediaries and by investment managers. On average, custodial banks that participated in the DTCC/SWIFT corporate action survey maintained a staff of over 300 to manage corporate actions processing; investment managers had an average staff size of over 20. A significant percentage of these individuals are dedicated to the interpretation, entry and scrubbing of data that is demanded by today’s process. Added liability is taken on by the downstream financial services industry because of the interpretation required. While it is impossible to pinpoint exactly where these added costs go, it is likely that they are borne by the entire processing chain: by the investment managers and intermediaries in the form of extra staff to extract and record the issuer information in a database; and then to review and process multiple feeds of the same information, and by the issuer in the form of opportunity cost. Higher costs for investors mean lower funds available for investment purposes, reduced likelihood of participation and potential misinterpretation that could lead to poor decision-making. The stakes in this game of “telephone” can be quite high.

4 Recommendations

The business case identifies three recommendations and specific implementation steps as detailed in the following table.

#	Recommendation	Implementation Steps	Responsible Parties
1	Adopt a single global standard	a. Develop/test and maintain XBRL Taxonomy in unison with ISO 20022 with public review and outreach program.	XBRL US, DTCC, SWIFT, ISO
		b. Enhance the ISO 20022 data dictionary to include additional data elements/concepts that will be required to support the issuing community.	Issuers, XBRL US, SWIFT, ISO, ISITC and SIFMA
		c. Mandate or at a minimum recommend that governing rules and regulations require issuer's corporate actions documents to include the elements in the ISO 20022 data standard.	SEC, SROs, DTCC
		d. Adopt the ISO 20022 standard and modify systems to accept electronic corporate actions data.	Intermediaries
2	Issuer to tag corporate actions documents	a. Conduct a pilot program with a number of issuers to evaluate the impact of tagging corporate actions	DTCC, XBRL US, SWIFT
		b. Permit the inclusion of a corporate action XBRL instance at point of public disclosure along with traditional filing of corporate actions data.	
		c. Establish voluntary program for XBRL instances to be furnished along with regulatory filings submitted to EDGAR to determine impact on issuers and investors.	SEC
		d. Establish a level of liability on the issuer for the XBRL instance as currently afforded other forms of regulatory filings.	SEC
3	Deliver electronic message to the end investor in near time after public release	a. Modify systems to consume XBRL instances and publish announcement information to clients in ISO 20022 messages near real-time. Highlight issuer supplied data vs. DTC and stock market data.	DTCC, Stock Markets
		b. Send all data that has been tagged by the issuer (received from DTCC, stock market or the issuer) straight through to the investor in near real-time. Highlight issuer supplied data (vs. intermediary supplied data) to maintain integrity of the issuers' data as it flows through the chain.	Intermediaries

4.1 Risks and Mitigating Factors

Moving forward with these recommendations is not without issues that must be addressed, including concerns about shifting liability and cost from one party to another; however, the benefits far outweigh the risks.

4.1.1 Liability

The corporate actions process followed today clearly has the potential for inaccuracies, but the liability for these inaccuracies lies downstream with the intermediaries and potentially the investor. Today the issuer bears the liability for accuracy in the source document and the intermediary bears the liability for data extracted from those documents and presented to the investor. By tagging the data, the issuer will be responsible for both the accuracy of the source document and accuracy of the tagging. Concerns have been raised that tagging corporate actions data in

XBRL format could require additional disclosures and could shift greater liability from the downstream consumer to the issuer in one of two ways:

1. The tagged data are incorrect but the paper document is correct. The tagged data are relied upon by the intermediary and investor given their greater functionality and ability to enable STP, and the source document is ignored; or
2. The tagged data are correct but could be misleading if taken out of context without the explanatory text included in the paper document. Investors and intermediaries that rely solely on the XBRL data may misconstrue the intent of the issuer.

Another issue related to liability concerns the need for XBRL-tagged corporate actions data to be treated in the same manner as the traditional paper documents. Investment managers might not want to rely on XBRL-formatted data if it does not carry the same weight as the paper document. The recommendations would eventually hold the XBRL data to the same standard as the traditional document, although that requirement could be phased in. A similar situation exists with US GAAP today, where the SEC's final rule gave XBRL data limited liability in years 1 and 2, but full liability starting in year 3.

Mitigating Factors

The recommendations do not propose asking for more information from issuers, only to provide the information with greater consistency (e.g., inclusion of a security identifier by all issuers) while making the information computer-readable and therefore, available in a more functional format. There should not, therefore, be added liability associated with the items that are tagged in XBRL since this is data that would have been transmitted anyway through the paper version of the document.

In today's process, intermediaries and even investment management firms themselves selectively extract information of their own choosing to use for the all important decision-making about an election. The issuer is not privy to how information is extracted or even what data points are being used.

The business case does not propose replacing the traditional issuer documents with XBRL, merely supplementing them. Issuers have stated that they would feel comfortable with the process as long as the traditional document is seen as the final word from the issuer, as concerns have been expressed that the "nuances" of the originating document might be lost in the tagged items. The initial draft of the XBRL taxonomy will be designed to serve up a limited and clear set of concepts for each corporate action type to ensure ease of use and limit confusion among issuers.

Engaging the issuer in the taxonomy development itself is crucial; up to now, the taxonomy has been based on the corporate actions elements currently identified in the ISO 20022 standard. There are likely key elements that issuers would like added to the taxonomy and, therefore, to ISO 20022, especially key information points that may include critical legal language or instructions that today are buried in paper documents.

Taxonomy development will include a 90-day "public review" period during which all parties to the process will be engaged to review and revise the concepts included. The goal of that review will be to listen further to issuers and get their feedback on how the taxonomy should be revised. The release of the initial taxonomy will provide an important feedback opportunity bringing all stakeholders – issuers, intermediaries and investors – into the process to share ideas and ensure that the right information is conveyed.

And because taxonomies must be continually updated through ongoing support and maintenance, that feedback loop will continue. As noted earlier, the "X" in XBRL stands for "extensible", which will allow public companies to tag or identify other items not included in the base taxonomy. These "extensions" will highlight to data consumers other key concepts that issuers consider important and also serve as a key part of that feedback loop. Extensions could also be helpful in responding to questions specific to a particular deal that the issuer wants to be sure are accurately conveyed – this might be helpful in heading off questions from shareholders. Extensions that are used by multiple organizations could become part of the base taxonomy and could even become part of the ISO 20022 standard over time.

4.1.2 Cost

It is clear that costs will be wrung out of the system for intermediaries and institutional investors. It is likely to add new costs for issuers as they become responsible for tagging their documents in XBRL, and it could add costs to intermediaries as they reengineer their systems to accept and disseminate XBRL-tagged data.

Table 3: Estimated STP rate improvement for US announcements

	Intermediary		Investment Manager	
	Mandatory US Events	Voluntary US Events	Mandatory US Events	Voluntary US Events
Current STP Rate	50%	1%	51%	16%
Future STP Rate	82%	60%	82%	31%
Volume per year	227,000	16,000	12,000	900

Source: DTCC/SWIFT corporate action survey

For those investors that employ individuals to scrub data and/or to review multiple feeds of the same information in the search for the match, there will be cost savings. This manual review has a negative impact on STP rates. STP rates are used by the financial services industry to measure its ability to process information effectively.

Table 3 provides the average current STP rates and the estimated improvements. These numbers were used to determine the potential cost savings for the US financial services market.

For those investors that purchase a single feed of information that has already been scrubbed and consolidated to identify the most accurate information, there may not be a direct cost savings, although the “translation risk” will be reduced. As costs borne by intermediaries decline however, competitive pressures could work to actually reduce pricing to investment managers although this cannot be empirically demonstrated.

Issuers that perform XBRL tagging on their corporate actions document will ultimately add costs to their own processing in the form of staff time spent tagging and reviewing and the cost of tools or outsourcing to perform the XBRL transformation. Cost savings for intermediaries and investment managers cannot be passed on to the issuer. While one might expect a reduction in call volume if data received by investors is clearer, the issuers that were surveyed felt that a significant reduction in call volume was unlikely.

Mitigating Factors

It is important to note that greater funds availability for investors means greater investment opportunities which, while not a direct benefit to the issuer, ultimately can be hugely beneficial to the public company community as a whole. It can be estimated, based upon improved STP rates that \$172 million in savings to investors could mean more funds available for investment.

Secondly, the work required to tag a corporate actions document will be significantly less than that required today by all public companies as they transform their US GAAP financial statements into XBRL format. The XBRL US GAAP taxonomy contains 17,000 elements versus 200 in the corporate actions taxonomy. The taxonomy has been structured to provide topic “entry points” that guide the issuer to the specific data points they need, based on their responses to queries about event type (e.g., merger, dividend), country of origin, type of security, need for elections, and other factors. Only about 20-40 elements will be needed for each event. The implementation plan for this recommendation will include establishing a pilot program to more concretely define costs and benefits to all parties and explore ways in which ease of use for the issuer can be enhanced.

While some events such as mergers or acquisitions are fairly rare, more common events like dividend announcements can become a repeatable process from quarter to quarter. A recent survey conducted by the AICPA

“Once XBRL becomes embedded into the internal control over financial reporting processes and integrated within core systems, it will be easier for public companies to feel comfortable with using XBRL for other purposes, e.g., other types of regulatory reporting such as to FERC (Federal Energy Regulatory Commission) or even corporate actions].”

Brian Little, VP and Assistant Controller, AGL Resources

and XBRL US among public company preparers about XBRL tagging of US GAAP statements, found that 45% said it was significantly easier the second time around; 57% said tagging their financial statements for the first time took 120 hours, and 64% said tagging the same financials in the second quarter only took 40 hours²¹.

For the initial taxonomy, it is recommended that the number of elements be limited and simplified as much as possible to ensure ease of tagging for the issuer and to provide greater certainty around what needs to be tagged.

And finally, it is expected that the tagged data produced by issuers can be reused by the public company itself, on its website, in reports produced for analysts and in quarterly and annual results announcements. Down the road, it is expected that companies will begin producing XBRL data through their internal reporting process, rather than creating XBRL data after their financials have been produced. When that comes to pass, XBRL data can be used for reporting for other purposes and will become ubiquitous throughout the system, reducing the obstacles to XBRL tagging for corporate actions.

Based upon the survey (see table 3) carried out by DTCC and SWIFT and an independent analysis by Tower Group, the potential savings from improving the STP rates for Corporate Actions are considerable (see table 4). Intermediaries are estimated to recognize \$230 million in savings between reduction in losses, third party costs and staff. Investment managers are expected to realize \$172 million in savings.

Table 4: Estimated cost reduction extrapolated across US intermediaries and investment managers

	Estimated reduction in FTE cost ¹	Estimated reduction in 3rd party costs ²	Estimated reduction in realized losses ³	Estimated total \$USD savings
Intermediaries	\$ 132,000,000	\$ 18,000,000	\$ 77,000,000	\$ 227,000,000
Investment Managers	\$ 142,000,000	\$ 30,000,000	\$ 1,000,000	\$ 173,000,000
	\$ 274,000,000	\$ 48,000,000	\$ 78,000,000	\$ 400,000,000

Notes:

- 1) FTE cost reduction based upon the average STP rate improvements relative to the current FTE numbers supporting corporate action announcement processing with independent estimate provided by The TowerGroup, Inc.
2) 3rd party costs based upon the average expected savings on data vendor, software license and other costs
3) Realized losses based only on estimates for a specific year and not necessarily representative of other years
Source: DTCC / SWIFT corporate action survey and The TowerGroup, Inc.

4.1.3 Ease of Use

As noted above, issuers have expressed concern about the added work involved in tagging. Time is of the essence in any kind of merger or acquisition and multiple departments are typically involved in the creation of the paper-based documents. Adding XBRL conversion into the process could be burdensome and result in a time crunch given that it is clearly an added step. In addition, because corporate actions data can be transmitted through press releases or regulatory filings, and often a complex event may require delivering multiple messages, issuers will need to be vigilant that they are tagging all the needed information they send out.

Mitigating Factors

As previously described, the taxonomy is being developed to facilitate ease of use, with multiple entry points so that issuers do not waste time considering concepts that they ultimately do not need. This initiative was started at this time because of the US GAAP implementation of XBRL for public companies. By the year 2011, every public company listed on a US stock market will be submitting their data in XBRL format and the largest public companies will be submitting XBRL documents that carry the same level of liability as their traditional paper-based filing. External reporting departments are now rapidly becoming familiar with XBRL tagging. They are using tagging tools directly or working with an outsource provider; they are looking at peer data in XBRL to identify common practices. Investors will soon begin to ask questions about the tagged data itself.

In concert with these changes, the software and services market has evolved to meet the new demands for XBRL creation tools and analytical tools.

Tools could be developed for the XBRL corporate action taxonomy to produce a human readable summary of the tagged data, which will provide the issuer an opportunity to recheck key facts before publication.

4.1.4 Need for Timeliness

While the focus has been squarely placed upon the issuers to tag their corporate action documents to help the processing downstream for the reasons already mentioned, it is just as critical that intermediaries do their part to ensure that they can consume the XBRL data and pass the benefits to downstream investors. Intermediaries will need to improve their systems and procedures to permit tagged information to flow through as close to real time as possible.

Mitigating Factors

In the past, intermediaries have used the timing of corporate actions notifications as a competitive advantage, with each racing to pass information on to clients as quickly as possible. Most intermediaries send information, for time-critical, voluntary events within 24-48 hours of receipt. For mandatory events, many intermediaries will wait to make an announcement until it becomes effective, in part to reduce the ‘noise’ sent to clients. This results in inconsistent servicing of investors.

Should the issuer tag documents, intermediaries must be in a position to pass on their information seamlessly and without delay. Providing the discussion on liability can be addressed to the satisfaction of intermediaries (i.e., that the XBRL data carries the same liability as the traditional document), improvements can be achieved for all parties working to help the issuer and investor improve the flow of communication. Intermediaries will need to modify their systems and procedures accordingly, which could likely have a larger short-term financial impact than the request being made of the issuer to tag their documents. Both steps are critical to serving the investing community efficiently, since the chain between the issuer and investor needs to be completely opened.

Lastly, a concern was raised by intermediaries that risk is introduced but not necessarily known until instructions are received from investors near the expiration time of an offer. This situation provides further reason to adopt the recommendations.

4.2 Next Steps

Engaging stakeholders and developing the corporate actions taxonomy are the first steps to moving the initiative forward.

The stakeholder group comprised of issuers, intermediaries and investors has been instrumental in articulating the process for each link on the corporate actions supply chain and in describing the positives and negatives of the current system versus a revised process incorporating XBRL.

Going forward, the implementation plan will focus on:

- 1. Raising issuer awareness.** Communications activities will focus on bringing the issuer up-to-speed on the current corporate actions process, how the ISO standard works and is presently used by the downstream parties, and what XBRL could do to enhance the process. The objective is to persuade issuers of the value of XBRL to the process and to understand the problems in the current process.
- 2. Engaging intermediaries and investors.** Outreach programs will continue to educate these audiences on XBRL and what it can mean to the corporate actions process. The end goal is to obtain their buy-in and willingness to adapt their systems if necessary, to accept and consume XBRL data and to ensure that shareholders receive issuer data drawn straight from the issuer-sourced documents.
- 3. Completing the taxonomy.** Public review is planned to commence in the third quarter 2010, once the first draft has been finalized. During the 90-day public review, stakeholders from the issuer, intermediary and investor communities will be invited to participate.
- 4. Working with stakeholders to adapt their systems.** As a first step towards market wide acceptance, the initiative team will work closely with those parties that have already been engaged, including DTC (which will begin providing ISO 20022 corporate action announcement data beginning in early 2011), the NYSE, and others to assess how they could adapt their systems to accept and consume XBRL data.

5. **Involving regulators.** The SEC, which has jurisdiction over many of the regulatory requirements related to corporate actions, has a key role in this process. The recommendations would mirror the process followed by the US GAAP rollout of XBRL, where companies attach their XBRL and related documents to their traditional filing or to a Form 8-K. For press releases issued with corporate actions data, the XBRL version of that document should be linked to the release itself as an attachment.
6. **Expanding the stakeholder group.** To further obtain market-wide buy-in, work to bring other parties representative of the issuer, intermediary and investor communities into the fold.
7. **Work with XBRL software vendors.** At the time of this writing, vendors have been engaged to be sure that tools are ready when the taxonomy goes to public review. As one example of the proposed process, the external reporting manager or investor relations officer would open a tool that leads him or her through questions related to event type, security type, country of origin, need for elections, and other factors. The tool would then serve up those concepts (tags) that best reflect that type of corporate action. The issuer would always have the opportunity to add other concepts as extensions if he/she feels that the taxonomy concepts do not provide all the key information he/she wants to convey in computer-readable form.
8. **Establish pilot program for corporate actions in XBRL.** Issuers, intermediaries and investors will be identified to participate in a pilot program following the life cycle of a corporate action from creation of information in XBRL format through to consumption. This program will begin by year-end 2010.
9. **Investigating other subjects.** Other domains that could potentially benefit:
 - The proposed regulations by the US Internal Revenue Service to require issuers to disclose 'cost basis' information on major corporate action events
 - Additional tax reporting
 - Other countries corporate actions reporting
 - Other securities types, such as municipals, pink sheets and structured securities.

4.3 Conclusions

The problems in corporate actions processing have been around for many years. Periodically one organization or another takes up the charge on improving the situation but until now, a better solution has not been found. Combining an agreed-upon information standard like ISO with a technology standard used around the world can help us reach these goals.

In an increasingly global world, with an ever-rising number of public companies, corporate action initiatives will only continue to grow, resulting in more complexity and more information distributed. Failing to take definitive and positive steps together as an industry means that the problems will not be resolved and companies may begin turning more directly to investors as they look for better ways to tap into the global capital markets.

A failure to act on these recommendations will mean sticking with the status quo which, as outlined earlier, has a significant chance for error and unnecessary costs borne by the entire system. While the costs of establishing workarounds appear to be carried primarily by the intermediaries in the process, that cost is passed down to investors. And ultimately, the toll this takes on the funds available for investment can have a big impact on the issuer community. Establishing a better process can only help the entire system from issuer to investor.

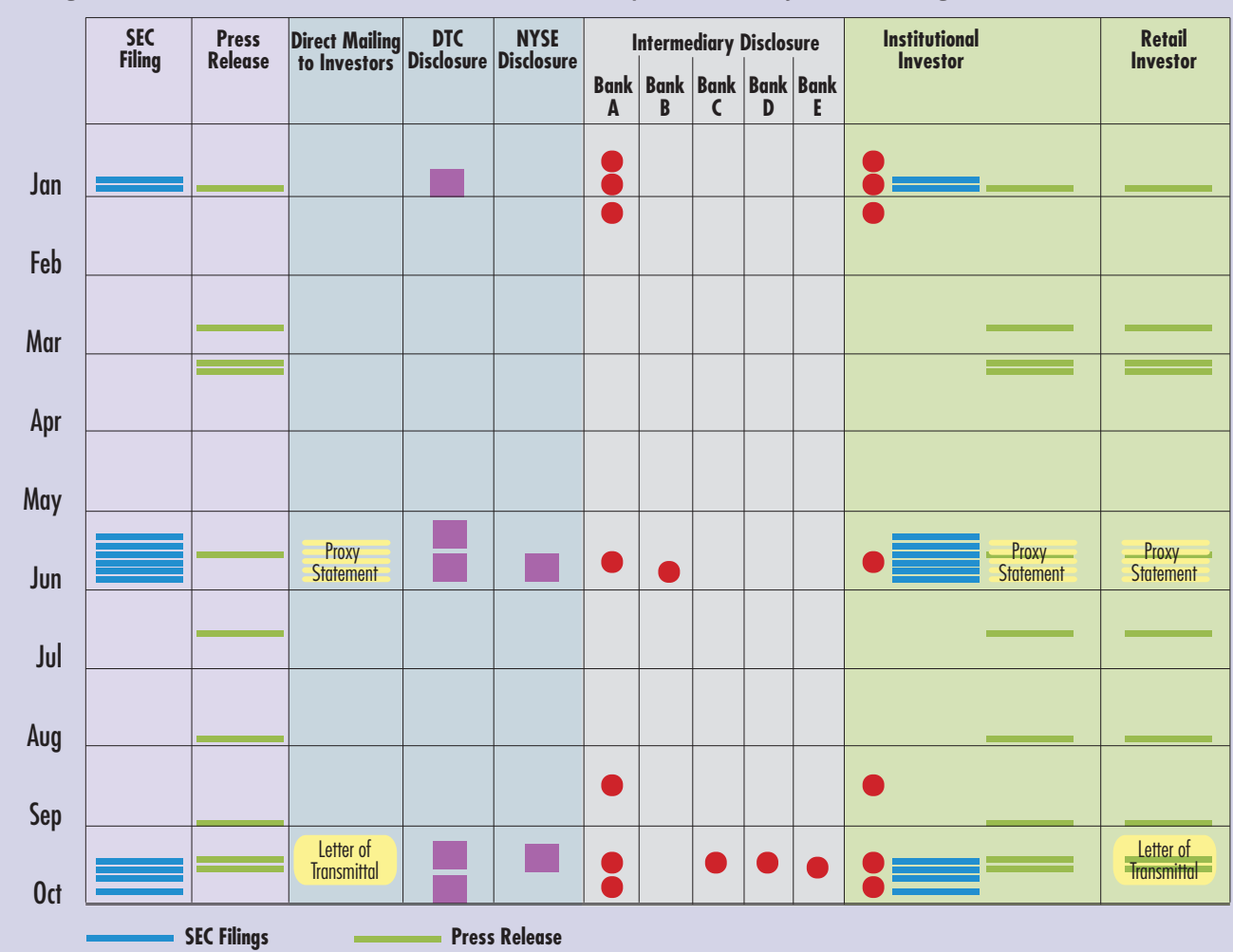
5 Case Study - Pfizer Acquisition of Wyeth

Pfizer's acquisition of Wyeth in 2009 provides a good example for a case study due to the event's significant size and impact upon a widely held stock. Although the event was treated as a mandatory merger, which does not have the same level of criticality as a pure voluntary event, it nonetheless helped focus discussion with the parties contributing to business case and uncovered concerns that may not have arisen otherwise.

On October 15, 2009, Pfizer acquired all of the outstanding equity of Wyeth in a cash-and-stock transaction, valued at approximately \$68 billion at the time of its announcement. Under the terms of the transaction, each share of Wyeth common stock outstanding, with certain limited exceptions, was canceled and converted into the right to receive \$33 in cash without interest and 0.985 of a share of Pfizer common stock. The stock component was valued at \$17.40 per share of Wyeth common stock based upon the closing market price of Pfizer's common stock on the acquisition date, resulting in a total merger consideration value of \$50.40 per share of Wyeth common stock. The two companies officially began operating as a combined organization²² on October 16, 2009. The transaction was subject to a number of closing conditions, including approval by Wyeth's shareholders (which was obtained on July 20, 2009) and by regulatory authorities in various jurisdictions. Pfizer communicated the terms of the merger, its ongoing progress in satisfying various closing conditions and related developments in disclosures to investors, analysts and key stakeholders over a 10-month period through 24 separate regulatory filings submitted to the SEC's EDGAR system (totaling over 2,800 pages) and the issuance of 10 press releases.

Diagram 1 provides a summary of Pfizer's key disclosures (Key Issuer Disclosure), SEC filing or Press Release and who was involved in passing information down to the investors. In addition to the information broadcast

Diagram 1: Timeline for intermediaries' disclosure compared with key Pfizer and agent releases



by Pfizer, the proxy statement and subsequent Letter of Transmittal were delivered directly to Wyeth's shareholders. However, the electronic summary version of the transaction, which is delivered to the beneficial owner, takes a path that can be best described as inconsistent and untimely because of differing practices by the intermediaries. Over the course of nine months, DTC provided five announcements to intermediaries, which were not consistently distributed by intermediaries. In comparison, Bank A provided seven electronic notices to its clients in a timely fashion whereas the other four banks only provided a single electronic notification mostly around the time the deal became effective.

This case study analyzes the process and parties involved in this transaction, specifically related to disclosures to Wyeth shareholders, and considers the positives and negatives of supporting that process with XBRL.

5.1 The Issuer and Agents

The issuer (e.g., corporate, municipality, or federal agency) is the entity that issued securities for public investment. The agents play a key supporting role to ensure various obligations to the investing community are met.

5.1.1 Pfizer announces the deal

As authorized by Pfizer's and Wyeth's Boards of Directors, Pfizer and Wyeth senior managements, along with the assistance of various internal and external advisors, negotiated the terms of the transaction. Pfizer took the lead in determining the structure of the transaction as well as the form and content of communications to shareholders, the financial community and the public. Pfizer's and Wyeth's Legal departments, together with their respective outside counsel, were responsible for drafting the merger agreement and associated documents with input from other advisors, as deemed necessary. Other Pfizer groups involved in the transaction included Strategy and Business Development, Treasurers, Corporate Governance, Controllers, Investor Relations, Media Relations, Public Affairs, Finance, and others where appropriate. On January 25, 2009, the Board of Directors for both companies approved the merger.

On January 26, 2009, Pfizer and Wyeth announced that they had entered into a definitive merger agreement under which Pfizer would acquire Wyeth by issuing a seven-page press release and filing a Form 8-K (Current Report) which included the announcement. The Boards of Directors of both companies had approved the combination.

All Pfizer releases were prepared and/or managed by Pfizer Worldwide Communications, led by Media Relations, with input and review from key internal and external groups including Legal, Investor Relations, Public Affairs, Corporate Governance, Treasurers, Finance, as well as Pfizer and Wyeth senior management and other key Wyeth groups. Legal managed the SEC filings.

Three days after the deal was announced, Pfizer filed a Form 8-K with the SEC, which included attachment of an 80-page Definitive Merger Agreement. In March, Pfizer submitted two additional SEC EDGAR filings related to a Bridge Term Loan Credit Agreement, dated March 12, 2009, which Pfizer had entered into in connection with its financing of the acquisition. On March 25, 2009, Pfizer issued a press release announcing the completion of its offering of \$13.5 billion of senior unsecured notes to be used for general corporate purposes, including funding a portion of the purchase price of the Wyeth acquisition. On June 3, 2009, Pfizer announced the completion of its offering of €5.85 billion and £1.50 billion of senior unsecured notes (totaling approximately \$10.5 billion) to also fund a portion of the purchase price. As a result of completion of this second offering, the Bridge Term Loan Credit Agreement was terminated. No amount had been drawn down under that facility.

In March, Pfizer filed a Registration Statement on Form S-4 in connection with its proposed issuance of Pfizer stock in the merger. The Form S-4 also included Wyeth's Proxy Statement in connection with its Annual Meeting of Shareholders, which included a vote of Wyeth's stockholders to approve the merger. Three amendments to the Form S-4 were filed with the SEC on May 5, May 22 and June 10, each approximately 400 pages long, in response to SEC comments and requests for additional information or further clarification. The correspondence from Pfizer to the SEC was also made public on EDGAR.

In early June, Pfizer announced that the SEC declared effective Pfizer's Form S-4. The shareholder meeting was held July 20. During the period between July and October, Pfizer announced the receipt of country-specific antitrust approvals needed for the acquisition from the European Commission, China's Ministry of Commerce, the Australian Competition and Consumer Commission, the US Federal Trade Commission and the Canadian Com-

petition Bureau. On October, 15, 2009, the merger was completed and on October 20, 2009 Pfizer filed unaudited pro forma financial statements on a Form 8-K and issued a press release to announce the completion of the acquisition.

Finally, Pfizer provided information on their website to help Wyeth shareholders exchange their Wyeth common stock. Most information was posted on October 16, 2009 and updated as deemed necessary. The Questions & Answers document included, but was not limited to, the following illustrative information to assist shareholders and their tax advisors in determining their specific tax positions:

- **Value of the merger consideration:** \$50.40 (sum of the cash portion, or \$33.00, and the closing price of Pfizer's common stock on October 15, 2009 multiplied by the exchange ratio of 0.985, or \$17.40);
- **Fair market value of the Pfizer common stock issued as part of the merger consideration:** \$17.66 (Pfizer's common stock closing price on October 15, 2009), and
- **Cost basis in the Pfizer shares received as part of the Wyeth acquisition:** \$17.66 (Pfizer's common stock closing price on October 15, 2009).

5.1.2 The Stock Market – NYSE Euronext

Prior to the merger, Wyeth's stock was listed on the NYSE Euronext (NYSE). Therefore, under the exchange's listing rules, a number of actions needed to occur during the merger that required open communication between the two companies and the NYSE. In particular, the primary role of the NYSE in an acquisition is to disseminate information related to trading and to deregister shares of the acquired company. On January 26, NYSE opened a file on the pending Pfizer transaction, reviewed the information available and updated it as new information was received.

The NYSE was notified of the Wyeth shareholder meeting in advance of the July 20 meeting date. Proxy statements were sent to the NYSE and distributed internally. Various discussions between different groups at the NYSE occurred in anticipation of this corporate action. Wyeth notified the NYSE of the expected merger closing date, as did Pfizer.

Once the merger received HSR²³ regulatory approval, the NYSE issued Information Notices stating that the merger was expected to close on October 15. Ticker Notices were also generated to indicate that the suspension date for Wyeth would be before the opening of business on October 16. These notices were delivered to the NYSE Market Data Site, (a subscription service accessed by data intermediaries, brokers, DTCC and others, which receives approximately 16,000 hits per week).

After the merger certificate was filed with the Secretary of State of Delaware on October 15, and the merger became effective, the NYSE published another notice that the merger had become effective. Two additional ticker notices were sent that day. Separately, the NYSE contacted DTC to make sure they had received acquisition-related messages and understood the terms of the transaction. In connection with the delisting of Wyeth's common stock from the NYSE, the NYSE filed a Form 25 (notification filed by issuer to voluntarily withdraw a class of securities from listing and registration on a national securities exchange) with the SEC on October 16, 2009. Subsequently, Pfizer and Wyeth made a formal request to terminate registration of Wyeth's securities with the SEC and filed a Form 15 (notice of termination of registration of a class of securities) with the SEC on November 6, 2009.

5.1.3 The Transfer and Exchange Agent – Computershare

The transfer agent maintains the register of who owns the issuer's securities, while the exchange agent is employed to facilitate a particular event where the securities of an issuer are exchanged for other securities, and/or cash, of the same or another issuer. In some cases, the exchange of securities may require an action by the investor to participate in the event. In Pfizer's acquisition of Wyeth, Pfizer's transfer agent, Computershare, played the role of both transfer agent and exchange agent. Weekly status calls were with both parties to the transaction to discuss timing and materials.

The acquisition was subject to customary closing conditions, including approval by the stockholders of Wyeth and by regulatory authorities in various jurisdictions. Once all conditions were met, the merger agreement provided that the merger would close within 5 business days. Computershare was notified on October 14 that October 15 would be the effective date of the merger.

On October 20, Computershare started mailing exchange materials to approximately 35,000 shareholders. Approximately two-thirds of the shareholders held their Wyeth shares in physical certificate form. These investors

received materials that included the letter of transmittal, a frequently asked questions (FAQ) document and a letter from the Chairman of Pfizer with instructions on how to proceed with submitting their Wyeth shares to receive their new Pfizer shares and cash proceeds. The remaining one-third of the shareholders held their shares in book entry form on the register (through DRS²⁴) and received their merger proceeds automatically. The mailing to DRS holders included a DRS statement, a check for the principal and cash-in-lieu entitlement, the FAQ document, the letter from the Chairman of Pfizer and a letter stating that their shares were automatically exchanged.

In addition to the mailing of exchange materials to registered shareholders, Computershare:

- Set up a dedicated, telephone hot line to respond to questions, and
- Prepared a few dozen call center representatives to answer questions from registered shareholders.

Most questions received were on tax reporting, fair market value, the process of how the merger worked and the terms of the deal itself. To date, Computershare has received over 11,000 calls on the merger.

5.1.4 Wyeth's Proxy Solicitor / Information Agent – D.F. King & Co., Inc.

As Wyeth's proxy solicitor and information agent, DF King played two key roles: (i) advised Wyeth on the optimal strategy and communications program to secure the required shareholder approval of the transaction, and, (ii) managed the 'street name' mailing to brokers, banks and other intermediaries. Wyeth had approximately 500,000-600,000 beneficial holders in 'street name' in the aggregate, though, the mailing only required the physical distribution of proxy materials to approximately 190,000 beneficial holders. The remaining beneficial holders did not receive proxy materials in the mail because they chose to receive their proxy electronically or for other reasons. Registered shareholders received materials directly from a mailing performed by Wyeth's transfer agent, whereas holders in 'street name' received their materials from their custodian bank or broker, or their proxy agent, after bulk delivery to DF King.

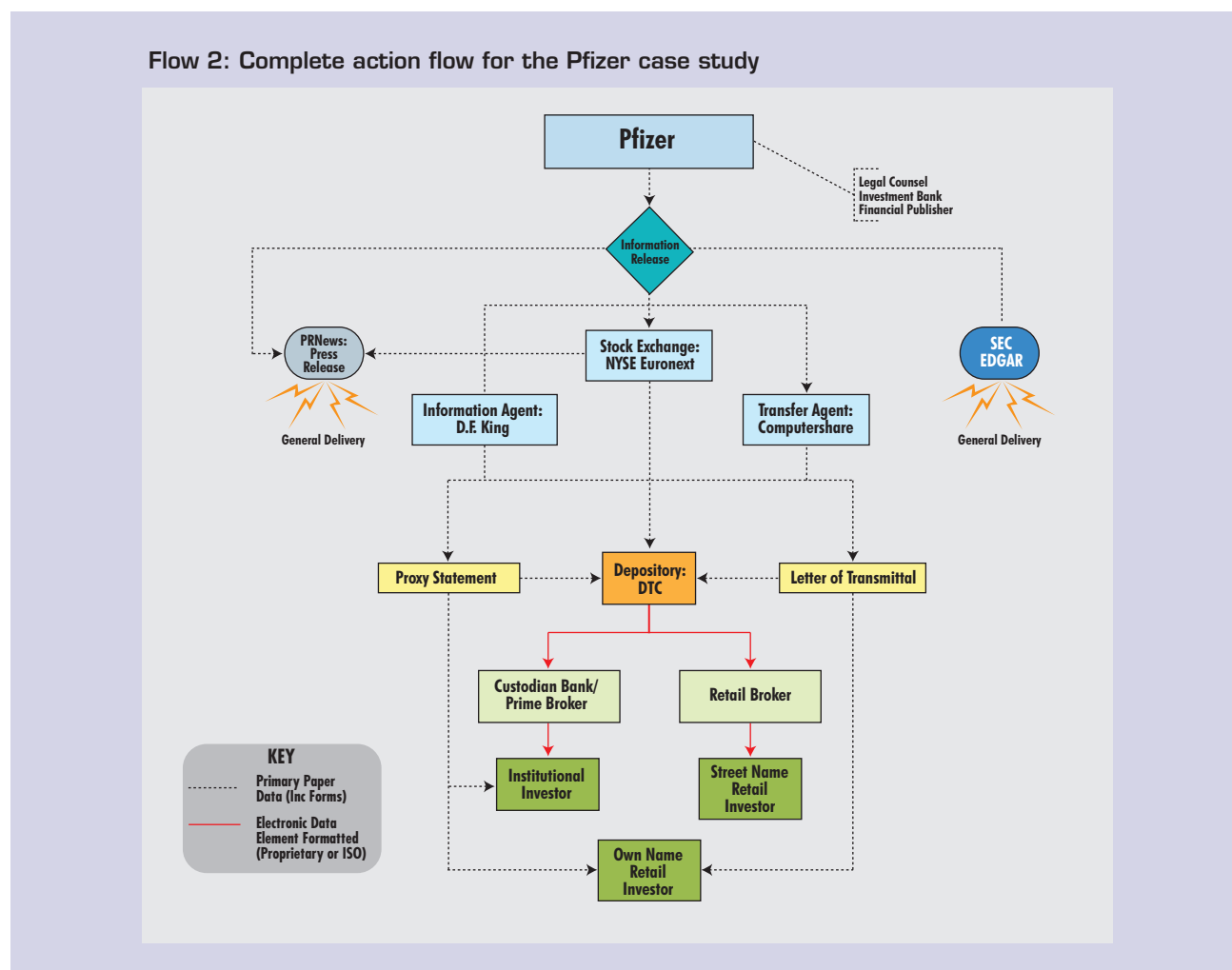
DF King was authorized by Wyeth to obtain the Wyeth DTC participant list as of the record date, which provided the names of the banks and brokers who were the DTC participant account owners and entitled to voting rights at the Wyeth annual meeting. Where brokers mailed to clients directly, DF King delivered the material locally by truck and used a courier for out-of-town broker deliveries. The majority of brokers (~90%) used a proxy agent to mail the material to beneficial holders, received from DF King, rather than deliver it themselves.

The proxy notice (~347 pages) was delivered by DF King to brokers and proxy agents around June 20, a few days after the public announcement of the meeting by Wyeth.

DF King recommended to Wyeth that it send the mailing at least 30 days prior to the meeting – a letter from the Chairman was attached to the proxy. Given the size of the proxy mailing, DF King estimates that it cost Wyeth about \$1.5 million for the 'street' mailings.

5.2 Intermediaries

Once Pfizer announced the event to the general public, the ‘intermediaries’ reacted to the information in much the same manner but with some notable differences. Flow 2 is a modification of the flow presented earlier in the business case. For the purpose of this case study, intermediaries are defined as DTC and its direct clients, the brokers and banks holding 97.5% of Wyeth shares.



5.2.1 The Central Securities Depository – DTC

DTC, acting in its capacity as the US Central Securities Depository (CSD), held Wyeth’s securities under a single nominee name registered at the transfer agent. In turn, DTC maintained the records as to which intermediary held the securities in order to facilitate trade settlement and corporate action announcement and payment.

DTC corporate action announcement staff manually reviewed the key forms filed daily with EDGAR through ‘alert’ programs offered by commercial vendors. Due to the long list of possible forms that could contain corporate action information, the process was time-consuming, with only about 10% of documents reviewed containing relevant information.

On January 26, DTC received notice of Pfizer’s announcement to acquire Wyeth. Upon review of the 80 page Form 425 (prospectuses and communications in connection with business combination transactions filed as an 8-K) filed by Pfizer, which announced acquisition as a ‘Material Definitive Agreement with Agreement and Plan of Merger’, the event type was determined. DTC staff extracted the appropriate data elements from the issuer source document and recorded them in DTC’s system, covering the following elements:

- **Event Type:** Merger
- **Security Name:** Wyeth
- **Security ID (Wyeth):** 983024100

- **Offeror:** Pfizer
- **Cash Payout Rate:** \$33.00 per Wyeth share
- **Security Payout Rate:** 0.985 Pfizer share per Wyeth share
- **DTC Status:** Preliminary (as meeting date not announced)

All DTC participants and clients received the DTC announcement on the end of day 'Reorganization' data file, a proprietary data file format that DTC uses to convey information to clients.

Diagram 2: Illustration of Pfizer's key disclosures that were used as triggers by DTC to announce, in summary form, to intermediaries.

	Issuer Disclosure	DTC Disclosure
1/26/09	Pfizer to Acquire Wyeth, Creating the World's Premier Biopharm	
1/27/09		Notification <ul style="list-style-type: none"> • Merger • Cash Rate • Security Rate
6/17/09	Wyeth Shareholder Meeting Statement	Notification <ul style="list-style-type: none"> • Dissenter Rights • Exchange Agent • Meeting Date • Rounding Factor
10/14/09	Pfizer Receives Clearance from the US Federal Trade Commission & the Canadian Competition Bureau	Notification <ul style="list-style-type: none"> • Payment Date • Chill Dates
10/15/09	Pfizer Completes Acquisition of Wyeth with consolidated financials	
10/21/09	Completion of Acquisition or Disposition of Assets plus release on Pfizer Completes Acquisition of Wyeth	Notification <ul style="list-style-type: none"> • Payment Date • Cash in Lieu Rate

Thereafter, as Pfizer and Wyeth released other documents, DTC staff continued to review and check against the DTC announcement until a document provided specific new details. In this case, not until the proxy statement was filed by Pfizer on June 17 under Form 424B3 (prospectus filed pursuant to Rule 424(b)(3)) did DTC take further action. Specific information from the proxy was then read, interpreted and manually added to the DTC announcement created on January 27. The new information added was as follows:

- **Meeting Date:** 7/20/09
- **Dissenters Rights:** Yes
- **Dissenters Rights Priority Date:** 7/20/09
- **Exchange Agent:** Computershare
- **DTC Status:** Final (meeting date known)
- **Rounding Factor:** E ('cash in lieu')
- **New Security ID:** 717081103
- **New Security Description:** Pfizer Inc

All clients received the additional information on the DTC announcement on the end-of-day 'Reorganization' data file.

DTC received a data transmission file from a proxy agent which indicated that Wyeth shareholders of record on June 5, 2009 should be included in the Wyeth shareholder vote. In return, DTC provided the proxy agent with the bank and broker account names together with the settled quantities of Wyeth stock held in the account.

On September 9, DTC contacted Computershare concerning the expected effective date of the merger and was informed that it would likely be in the 3rd or 4th quarter of 2009. DTC updated the information in the end-of-day 'Reorganization' data file.

On October 14, DTC learned from DF King that the effective date would be October 15, and they communicated this information to clients along with the following:

- **Effective Date:** 10/15/2009
- **SCL Drawdown Date:** 10/15/2009
- **Close Window Time:** 3:00pm
- **Last Day for Deposit:** 10/16/2009
- **Last Day for Delivery:** 10/14/2009
- **Last Day for Pledge:** 10/14/2009
- **Last Day for Segregate:** 10/14/2009
- **Swing Date:** 10/16/2009
- **Reorg Deposit Eligible:** Y
- **First Day for Reorg Deposits:** 10/19/2009

On the effective date, DTC (which held 97.5% of the outstanding Wyeth shares) was paid so that they could allocate the newly issued shares and trading could begin as soon as possible. Computershare released funds to DTC before noon on the first business day after the effective date.

Finally, on October 21, the agent informed DTC that the payout rate for fractional share entitlements would be based upon the 'cash in lieu' rate of \$16.836, on the equivalent of 10,000-12,000 Pfizer shares. Similar to the other announcement updates, the information was manually entered by DTC staff and communicated in end-of-day data files.

- **Update CIL Rate:** 10/22/2009
- **Payout CIL Rate:** \$USD 16.836
- **Payout CIL allocation date:** 10/22/2009

5.2.2 Custodian Banks and Brokers

Typically, the banks and brokers have a direct account with DTC or clear through a broker that has a DTC account to settle trades. With the majority of shares held in DTC's street name 'CeDe & Co', the banks and brokers looked to DTC to provide the initial notification of a corporate action. All seven banks interviewed for this case study relied on DTC for this information.

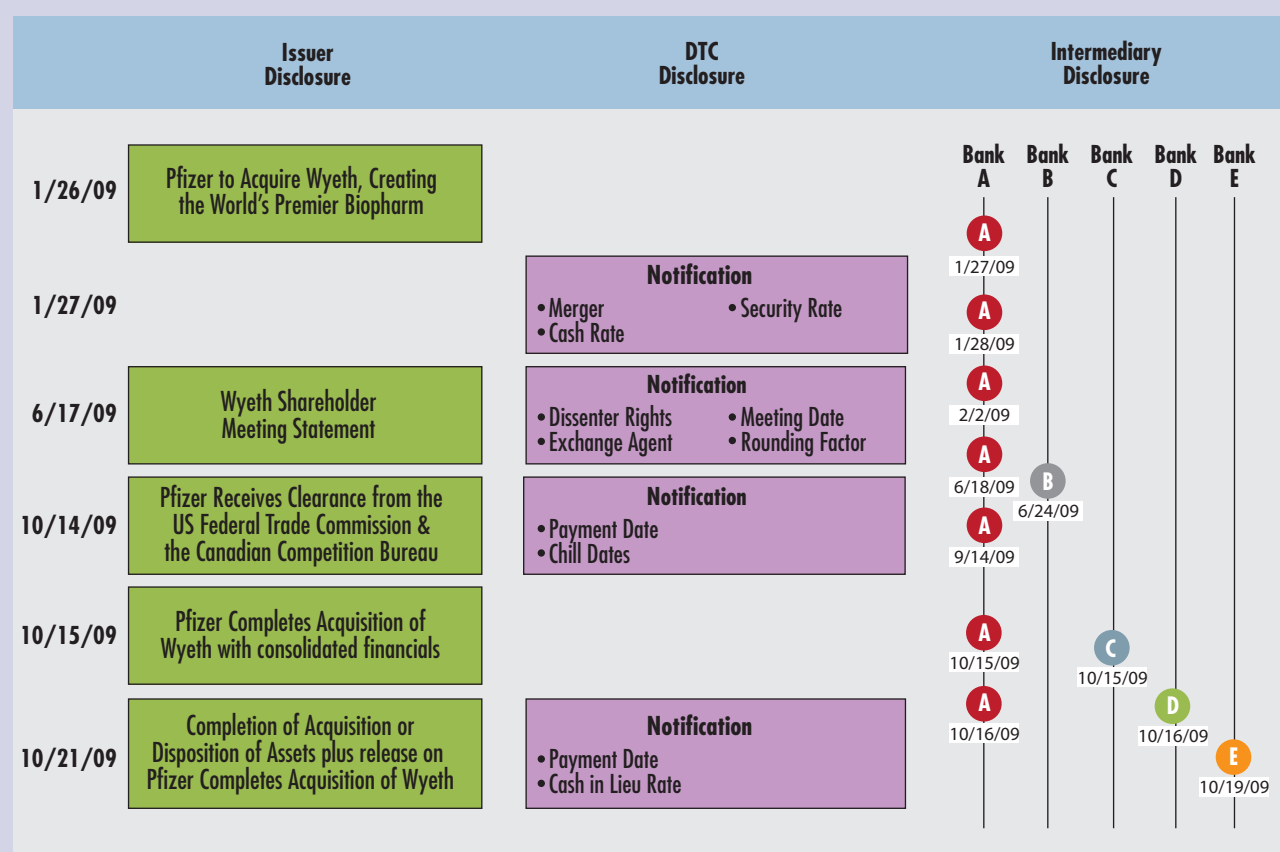
However, as shown in figure 4, not all banks and brokers announced the specific corporate action details at the same time or with the same frequency.

Typically, a mandatory merger event, regardless of size or market interest, is not given the same level of urgency as a voluntary event that requires shareholder action within a short period of time. Therefore, it is common practice to only send notifications out once the event becomes 'effective', which in the case of the Pfizer acquisition was almost nine months after the initial announcement. However, a number of intermediaries stated that they have recently changed their practice to fall in line with voluntary events, thereby advising clients sooner, normally within 48 hours from receipt of the event information.

Banks and brokers, especially for voluntary events, usually manually check DTC's information against the issuer's filings. Although, for a mandatory merger, the information may be sent on with little review of the issuer information as presented by DTC.

The banks and brokers will further select which issuer information received from DTC they pass on to their clients, along with any additional client-specific information or general disclaimers. Some banks/brokers delivered specific announcement messages through proprietary data files, or within an ISO 15022 corporate action notification message (MT564), or via database link delivered by email. Other banks stored the information for the client to access when logging onto their on-line brokerage account.

Figure 4: Timeline for Intermediaries disclosure compared with key issuer releases and DTC announcements



Typically, information delivered to clients was no more than:

- **Event Type:** Merger
- **Security Name:** Wyeth
- **Offeror:** Pfizer Inc
- **Security ID (Wyeth):** 983024100
- **Effective Date:** 10/15/2009
- **Cash Payout Rate:** \$USD 33 per Wyeth share
- **Security Payout Rate:** 0.985 Pfizer share per Wyeth share
- **Meeting Date:** 7/20/09
- **Dissenters Rights:** Yes
- **Rounding Factor:** Cash in Lieu
- **New Security ID:** 717081103
- **Anticipated Payment Date:** mm/dd/yyyy
- **New Security Description:** Pfizer Inc
- **Tax Consequences:** example "To assess the tax consequences of this corporate action, clients should seek professional tax advice."

As noted earlier in the section on the information agent, banks and brokers are also required to provide the name and address of clients so that Wyeth can distribute shareholder meeting materials as required by the SEC²⁵. In most cases, intermediaries outsource this process to a proxy agent, which works with the proxy solicitor / information agent. DF King, in this case, shipped printed materials to brokers and proxy agents promptly upon receipt from Wyeth's printer. Brokers and proxy agents, in turn, sent the material to the 'street name' shareholders as promptly as possible thereafter.

5.3 Investors

This business case articulates the views of institutional investors and retail investors through input from retail brokers.

5.3.1 Retail Investors

Today, as in the past, retail investors are serviced indirectly by the public disclosure process discussed in the issuer section. There is little targeted to the actual shareholder other than the proxy statement and letter of transmittal, which are sent months after the original announcement. Pfizer's acquisition of Wyeth was deemed a 'mandatory merger' by brokerage houses who held the accounts on behalf of the retail investor; therefore, there was less incentive to provide shareholders with information other than to facilitate the paper delivery of the proxy statement and letter of transmittal as determined by Wyeth.

One brokerage operation's client service team handled 215 inquiries from financial advisors (each representing hundreds or thousands of beneficial owner accounts), which is typical for a large, and widely held, mandatory merger. Indeed, due to the size of the event, the brokerage firm created a 'frequently asked questions' (FAQ) site to assist their financial advisors and assigned more than five full-time client service staff to address questions, especially in the first week of the announcement.

Brokerage firms noted that clients are more sensitive now to the timing of information due to the financial crisis. There is pressure on the client service team to independently research the event by reviewing the issuer's SEC filings, press releases and corporate website as clients treat the issuer's information as the 'golden record'. Indeed, some clients call and indicate that they would have sold/bought in reaction to the event if they had been informed earlier.

In this case study, one brokerage provided its 60 customer service representatives with details of the event to field the roughly 2,500 calls they received during the first five days after the event was announced. Typically, 75% of clients will call. Most clients do not read the issuer information, but would rather call their broker representative if they need more information to understand the event.

5.3.2 Institutional Investors

Institutional investment managers/investors typically separate functions between the 'front office' and 'back office'. The activities of portfolio managers, analysts and traders (the 'front office') who actively manage accounts was discussed in the 'Situation Analysis' section. This section of the case study will focus on the 'back office' operations

teams, which are responsible for managing and processing the information that flows between the custodial banks and their investment managers.

Although the portfolio managers are acting upon events on a real-time basis, the operations team provides a safety net to ensure that the managers are aware of an event and have the information they need to make decisions. In fact, one mutual fund operation team noted that their portfolio managers rely heavily on their team to provide timely and accurate information.

One hedge fund indicated that they use information from their prime broker, which is reviewed by the operations team before being passed on to the portfolio managers with any additional comments. The prime broker acts as the hedge fund's custodian and will often refer inquiries about event details to them instead of the issuer.

One mutual fund operation team looked for key information found within the prospectus that may not be provided by their custodian banks announcement, in particular:

- Tax information
- Qualified Institutional Buyer and/or Residency restrictions

Information was also passed on to their tax department to determine tax consequences and what impact such consequences have on the manner in which they process the event on the funds account.

One mutual fund company that received information about the Pfizer acquisition from more than one custodial bank noted that the timing of information received differed from bank to bank. Some custodial banks sent

One Mutual Fund company noted that their "Portfolio Manager and Advisors want one view of the event, but as they may have holdings across multiple custodians, this can be difficult. Therefore, there is a need to standardize and normalize the information across all parties."

information as early as January 28, while others sent their first notification as late as June or early July. This timeline highlights the lack of consistency around receipt of the information by portfolio managers.

Date	Mutual Fund timeline - comments
01/28/09	Initially received a couple of custodian notifications advising of the proposed merger. The notifications had limited information, detailing that the merger was subject to shareholder and regulatory approvals, which were expected to be completed by the end of the 3rd or during the 4th quarter.
06/18/09	Received update advising that a meeting would be held 07/20/09 to vote on the proposed merger agreement.
06/23/09	Received dissenter's rights notification, which was handled by the Proxy department. We started receiving notifications from a wider audience of custodians in late June/early July.
10/14/09	Received updated notification, expected effective date 10/16/09. The October merger notifications were limited to seven custodians. We find that several of our (smaller) custodians don't always notify on mandatory events.
10/16/09	Custodian notifications were processed in our systems and notification sent to our internal interested parties.

5.4 How the proposed recommendations improve the process

The process above “works” because of the convoluted practices that have evolved over the years to compensate for the lack of automation and STP. As a corporate action becomes more complex, with multiple messages, more layers of manual intervention must be added to check and double-check the message being sent out. To change the process and move towards STP requires the involvement of all parties in the corporate action chain. All parties need to modify their current behavior to achieve the recommendations as laid out in this business case to ensure the issuer, as the one and only source of their information, can effectively communicate the details of the event to their investors, particularly those holding securities in ‘street name’.

Recommendation 1: All parties involved in the processing of corporate action announcements must adopt a single set of ISO global information standards for corporate actions data, while continuing to support the current disclosure process.

Greater agreement around corporate action content and its meaning will provide for more effective and consistent communication. This paper does not endorse the use of specific vendors or intermediary systems, but rather the common use of a data model and messaging standard - ISO 20022. Agreement on a common methodology and the application of technology will result in information created at the source flowing through to investors without

“Simplification and transparency are good for the client”

Jane Maccubbin

T. Rowe Price

Investment Services, Inc

manual intervention. Agents and intermediaries including the NYSE Euronext, DTC, custodians and banks/brokers could adapt their systems to accept XBRL data or rely upon other parties who convert the XBRL data into ISO 20022 messages. They would use the XBRL version to create summary materials, confident that the data format (XBRL) used by the sending party can be mapped directly into their systems. This will ensure greater accuracy as the need to manually extract information from free-form text documents is eliminated.

On the outbound delivery to their clients, the intermediaries could send native ISO 20022 messages that will be received and mapped to client (the investors’) systems, again in a manner in which the data can flow seamlessly with no manual intervention.

Pfizer and Wyeth provided a great deal more information than was electronically passed down to the investor. Through the use of XBRL, the additional information not included in the ISO 20022 data dictionary could be added, providing a means by which the issuer’s voice and its key messages could be more easily heard.

Recommendation 2: Issuers must “tag” (insert metadata to the source document) a limited set of key corporation action information data points, found within their documents, using eXtensible Business Reporting Language (XBRL) tags based upon the global ISO standard followed by the financial services industry.

As Pfizer and Wyeth completed their submissions to the appropriate regulators and issued press releases to the financial community and public, they would have simultaneously tagged those materials, identifying the specific pieces of information that are included in the ISO 20022 standard and DTC Model needed by investors. DTC has created ‘extensions’ for information deemed of particular importance that was not included in the ISO standard. The same departments that were involved in the creation and review of the traditional filings would have also been involved in the XBRL formatting and review. By understanding what information the intermediaries will be passing onto the investors, as defined in the taxonomy, the issuer will have a greater awareness of how their event is portrayed. During the XBRL tagging process, Pfizer and Wyeth may decide that other information, not included as an existing taxonomy element, is important to the transaction and should be communicated electronically as tagged data. The tagged data would be conveyed, in addition to their paper-based source document. Pfizer could use extensions to add key information such as:

- Notification that the acquisition is dependent upon approval from the:
 - Wyeth shareholders;
 - US Securities Exchange Commission of the Form S-4
 - European Commission;
 - China’s Ministry of Commerce;
 - Australian Competition and Consumer Commission;
 - US Federal Trade Commission, and
 - Canadian Competition Bureau.
- The cost basis for the event, \$50.40, with text to explain the calculation, and
- The fair market value of the event, \$17.66, with text to explain the calculation.

The use of XBRL tags could allow Pfizer and Wyeth to more easily convey the status of the event to shareholders. For example, upon initial release, Pfizer and Wyeth would be afforded the opportunity to indicate that the event was subject to Wyeth shareholder and regulatory approval. Upon approval at the July 20 Wyeth shareholder meeting, Pfizer and Wyeth could have updated the event to indicate the approval to a new status indicating that at that stage, only regulatory approval was required. A final status of ‘approved’ (as it related to Wyeth securities listed on NYSE Euronext) could have been sent on October 15.

Pfizer and Wyeth could have leveraged the in-house expertise, tools and/or services they currently use for their US GAAP creation process. The incremental process of creating and approving XBRL tags would have added to the work and time involved for Pfizer and Wyeth staff, but given the limited number of tags required, would have been substantially less than the resources required to tag US GAAP financial statement data – a process that they currently are required to do, per SEC mandate. It is estimated that tagging a press release (depending on length) could take about an hour, while tagging a regulatory filing could require more time – estimated between one and five hours, depending on the complexity for creation and review. Broadly estimated, this could add between 34 and 130 hours into their process.

For regulatory filings, the XBRL document would have been attached as an exhibit to the traditional filing and likewise, the tagged press release information could have been embedded as a link in the press release. Thus, the XBRL data would be disseminated at the same time as the traditional message.

The following table provides a list of data elements found within the initial release of the corporate action XBRL Taxonomy for a Cash and Stock Merger.

Event Specific Label	Event Specific Label	Event Specific Label
Source Document Details		
Author Company Name	Document Type	Document Title
Author Name	Document URI	

Event Specific Label	Event Specific Label	Event Specific Label
General Document Details		
Unique Universal Event Identifier	Details Completeness Status	Notification Type
Announcement Identifier	Event Confirmation Status	Security Holder Elections
Event Underlying Security Details		
Security Identifier	Place of Listing	Security Country of Issuance
Security Description	Security Issuer Country of Incorporation	Security Issuer Name
Corporate Action Details		
Event Type	Offeror Company Name	Surviving Company Name
Sub Event Type	Meeting Date	Domicile Restriction Flag
Announcement Date	Meeting Time	Event Cash Value
Effective Date	Meeting Time Zone	Tax Consequences
Payable Date	Dissenters Rights	Dissenter's Rights Priority Date
Record Date		
Option Details		
Option Number	Participation Restrictions	Option Status
Option Type	Option Conditions	Option Text
Payout Details		
Payout Number	Place of Listing	NRA Tax
Payout Type	Price	Cash in Lieu Price
Payout Amount	Base Quantity	Security Identifier
Payout Taxable	Disbursed Quantity	Security Description
IRS 1042 Reportable Indicator	Fractional Security Rule	Restrictions on Disbursed Security
Additional Text		
Restrictions	Terms	

Recommendation 3: Once issuers tag corporate actions information, intermediaries must seamlessly disseminate, without alteration, the issuer's electronic version as close to real time as possible or within a timeframe as requested by the end investor.

With issuers tagging corporate action documents in a format that can be easily consumed, there should be little reason why the issuers message cannot flow electronically straight down to the investor.

The use of an XBRL taxonomy based on the ISO standard would remove any doubt as to the accuracy and authenticity of the information. This would allow the financial services industry to receive, perform minor automated checks, add additional details if necessary, and automatically pass the details downstream within a matter of minutes from the issuer's release without alteration to the issuer's own information.

In the case study, there is an obvious discrepancy between intermediaries as to when information is delivered to clients. In one case, the client received the information as early as on the announcement date, while others received it nearer the effective date of the event. This discrepancy should be eliminated if the recommendations are accepted and put into practice.

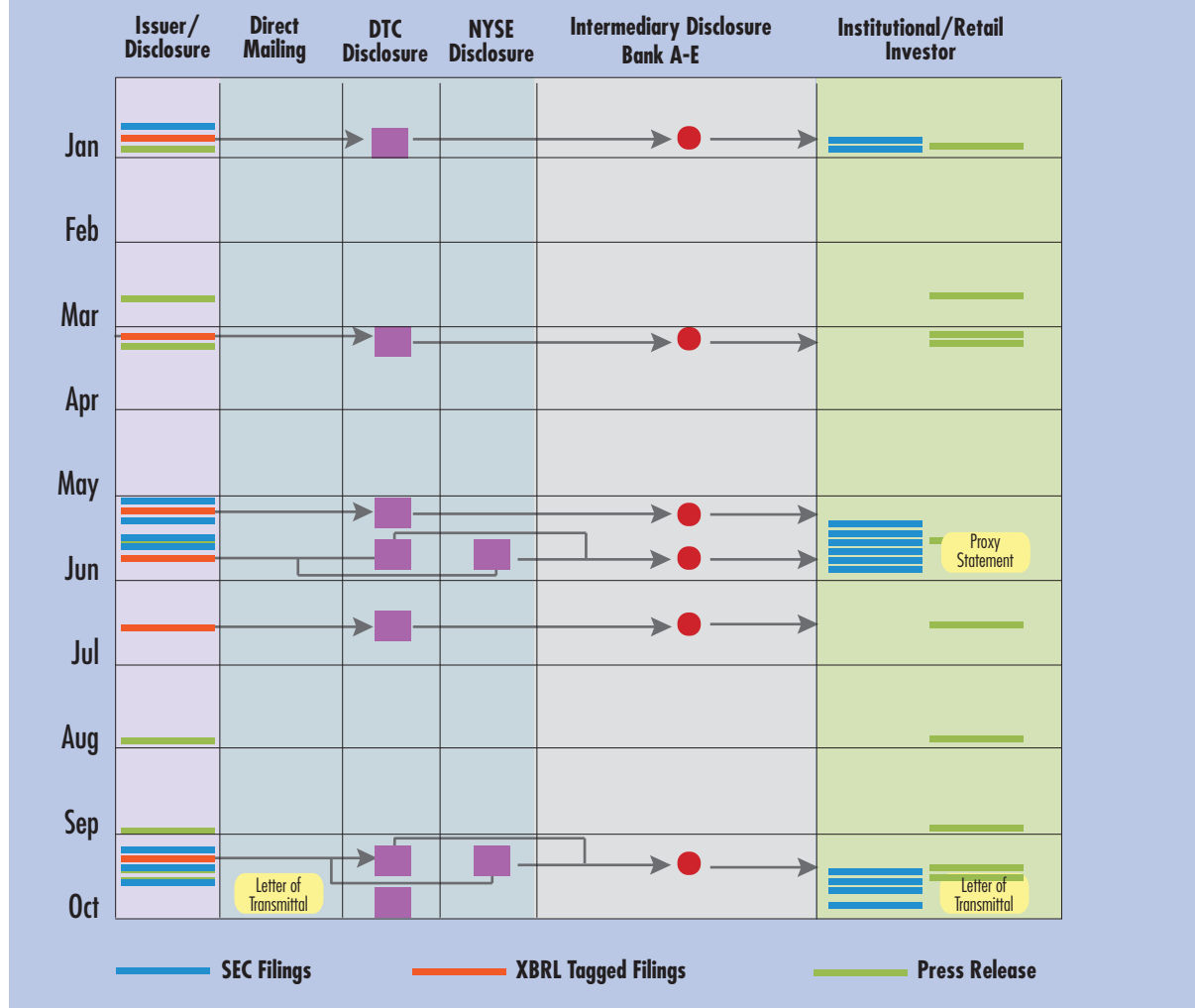
Much of the information intermediaries pass down to the investor comes from the issuer. Therefore, there is no reason to delay the delivery of that information by intermediaries if a new model exists where the intermediaries can seamlessly transmit the information based upon the certainty that the issuer created the source data. In some cases, investors have requested that intermediaries do not send superfluous or unapproved information. If data are

sourced directly from the issuer, investors concerns over inaccurate or unnecessary data will be eliminated and they will be more likely to want information to be forwarded on to them immediately.

Investors would no longer need to purchase multiple feeds of the same information as they can then comfortably rely on messages received, knowing that the data were pulled, by computer, directly from the issuer's source document.

Figure 5 provides a view of how tagged information could flow, uninterrupted, resulting in a more timely flow of announcement details between issuer and investor.

Figure 5: Suggested future model where issuer XBRL tagged information flows timely and consistently to the investors



Footnotes

¹ Corporate actions include major corporate restructuring initiatives such as mergers and acquisitions as well as routine events such as stock splits or dividend, and interest payments.

² ISO – International Organization for Standardization. The standard for corporate action messaging falls under ISO 15022 and ISO 20022.

³ See: The Department of the Treasury, Internal Revenue Service, 26 CFR Parts 1, 31, and 301, [REG-101896-09] Basis Reporting by Securities Brokers and Basis Determination for Stock.

⁴ A parallel can be drawn with the benefits recognized by the FDIC in their adoption of XBRL for quarterly bank Call Reports. “The new system, known as the Central Data Repository (CDR), is the first in the US to employ XBRL on a large scale and represents the largest use of the standard worldwide. The CDR uses XBRL to improve the transparency and accuracy of the financial reporting process by adding descriptive “tags” to each data element. The overall result has been that high-quality data collected from the approximately 8,200 US banks required to file Call Reports is available faster, and the collection and validation process is more efficient”. See p5: Federal Financial Institutions Examination Council report entitled ‘Improved Business Process Through XBRL: A Use Case for Business Reporting’.

⁵ Based upon results drawn from the DTCC / SWIFT corporate action survey conducted by DTCC and SWIFT, completed by major intermediaries and investment managers, in the Fall of 2009.

⁶ See <http://xbrl.us/i2i/Pages/default.aspx>

⁷ http://www.dtcc.com/downloads/products/gca/I2I_Stakeholder_Launch_Sep2009.pdf

⁸ The SEC mandated the reporting of financial statements by public companies in XBRL (eXtensible Business Reporting Language) with the largest public companies beginning to comply in June 2009.

⁹ ‘Street name’ refers to holdings in name other than the beneficial owner. Typically, ‘street names’ are the nominee name of DTC or intermediaries.

¹⁰ The US central securities depository (CSD) for U.S securities is the Depository Trust Company (DTC), a wholly owned subsidiary of the Depository Trust and Clearing Corporation (DTCC).

¹¹ An early draft of an XBRL taxonomy for proxy has been developed and will be built out following the structure of the corporate actions taxonomy.

¹² EDGAR is the SEC’s Electronic Data Gathering, Analysis, and Retrieval system.

¹³ <http://proxydemocracy.wordpress.com/2008/05/29/how-much-equity-is-owned-by-retail-investors/>

¹⁴ It should be noted that some individual investors have instructed their broker to only pass down corporate action information when the entitlement is paid.

¹⁵ See <http://www.sec.gov/info/edgar/forms/edgform.pdf>

¹⁶ 10 years in review (2000 – 2009): World Federations of Exchanges. <http://www.world-exchanges.org/statistics>

¹⁷ Source: DTCC Solutions, a wholly owned subsidiary of DTCC.

¹⁸ Tender Offer Statement Under Section 14(d)(1) or 13(e)(1) of the Securities Exchange Act of 1934.

¹⁹ www.xbrl.us

²⁰ “Share prices and trading activity over the corporate action processing cycle” a report prepared for The Depository Trust & Clearing Corporation May 2006 Oxera Consulting Ltd. http://www.dtcc.com/downloads/leadership/whitepapers/2006_oxera.pdf

²¹ AICPA/XBRL US Preparedness Survey, November 2009: 215 respondents through an online survey.

²² The merger of international Pfizer and Wyeth entities, however, is pending in various jurisdictions and integration in these jurisdictions is subject to completion of various local legal and regulatory obligations.

²³ HSR - The Hart-Scott-Rodino Antitrust Improvements Act of 1976.

²⁴ DTC operates the Direct Registration System (DRS), which provides registered owners with the option of holding their assets on the books and records of the transfer agent in book-entry form.

²⁵ Part 240 – General Rules and Regulations, Securities Exchange Act of 1934.

Acknowledgements

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- Computershare
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- NYSE Euronext
- Pfizer
- PR Newswire

Institutional Investors

- AllianceBernstein
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- Vanguard

Intermediaries

- Bank of America Merrill Lynch
- BNY Mellon
- Brown Brothers Harriman & Co.
- Canadian Depository for Securities Limited
- Citi
- Edward Jones
- JPMorgan
- The Northern Trust Company

For More Information

DTCC, SWIFT and XBRL US authored the business case in cooperation with various stakeholder groups and they are coordinating the corporate actions initiative. The business case is available at <http://xbrl.us/i2i/Pages/default.aspx>. If you would like more information or would like to get involved in the initiative or pilot program, please contact:

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About Issuer to Investor: Corporate Actions

Issuer to Investor: Corporate Actions is a joint initiative led by DTCC, SWIFT and XBRL US to improve communications between issuers and investors for corporate actions announcements in the US. On average, approximately 200,000 corporate actions such as dividends, bond redemptions, rights offerings and mergers are announced each year by publicly traded companies and other issuers or offerors in the US alone. This is significant because most of these announcements still require many manual steps, making the process error-prone, time-consuming and costly. Over the years, these issues have had a negative impact on investors across the financial community.

To help mitigate these problems and drive down the costs associated with processing corporate actions, DTCC, SWIFT and XBRL US have joined forces to identify a solution. The resulting initiative builds on the work undertaken globally to promote existing ISO standards for corporate actions and integrates the benefits of XBRL electronic data tagging technology. The collaboration promotes straight-through-processing by electronically capturing data directly from issuers at the point that a corporate action is announced and in standardized format. For more information about the initiative, please visit http://www.dtcc.com/downloads/products/gca/SIBOS_CorpActions_Supplement.pdf.

About DTCC

The Depository Trust & Clearing Corporation (DTCC), through its subsidiaries, provides clearance, settlement and information services for equities, corporate and municipal bonds, government and mortgage-backed securities, money market instruments and over-the-counter derivatives. In addition, DTCC is a leading processor of mutual funds and insurance transactions, linking funds and carriers with financial firms and third parties who market these products. DTCC's depository provides custody and asset servicing for more than 3.5 million securities issues from the United States and 121 other countries and territories, valued at \$33.9 trillion. Last year, DTCC settled nearly \$1.48 quadrillion in securities transactions. DTCC has operating facilities and data centers in multiple locations in the United States and overseas. For more information on DTCC, visit www.dtcc.com.

About SWIFT

SWIFT is a member-owned cooperative that provides the communications platform, products and services to connect over 9,000 banking organisations, securities institutions and corporate customers in 209 countries. SWIFT enables its users to exchange automated, standardised financial information securely and reliably, thereby lowering costs, reducing operational risk and eliminating operational inefficiencies. SWIFT also brings the financial community together to work collaboratively to shape market practice, define standards and debate issues of mutual interest. www.swift.com

About XBRL US

XBRL US is the non-profit consortium for XML business reporting standards in the US and it represents the business information supply chain. Its mission is to support the implementation of XML business reporting standards through the development of taxonomies for use by US public and private sectors, with a goal of interoperability between sectors, and by promoting XBRL adoption through marketplace collaboration. XBRL US has developed taxonomies for US GAAP, credit rating and mutual fund reporting under contract with the US Securities and Exchange Commission. XBRL US Labs, the research and development arm of XBRL US, leverages the XBRL US platform, methodologies and people to address the quality of taxonomies and the harmonization of XBRL with other XML standards.