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Corporate Actions Revisited

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Fall 2007



Interactive Data

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'connect' Fall 2007



Welcome to the Fall 2007 issue of Interactive Data Pricing and Reference Data's North American client newsletter.

Our objective with this edition of the newsletter is to provide you with a perspective on some of the critical issues that you may be facing, including the continued evolution of industry standards and regulatory compliance, while offering details on new and enhanced services from Interactive Data.

Highlights from the issue include:

- A look at standardization and corporate actions
- Information about preparing for FAS 157
- Examination of trends in emerging markets debt
- Analyzing "Trigger Levels" – Identifying When Funds Decide to Use Fair Value Methodologies

We hope that you find this issue of our newsletter informative, and welcome your feedback.

Best,

John Coffey
Editor-in-Chief
john.coffey@interactivedata.com

If you would like additional information about the topics covered in this issue, or about Interactive Data Pricing and Reference Data's offerings, please contact your account manager or call (781) 687-8800.



Interactive Data Pricing and Reference Data, Inc.
32 Crosby Drive Bedford, MA 01730 USA
Tel: +781 687 8800
Fax: +781 687 8289
Email: info@interactivedata.com



Corporate Action

COVER STORY

So much attention has been lavished on corporate actions processing over the past few years – one might be forgiven for thinking that the issue must surely have been put to bed by now. But is that really the case?

At a recent reference data conference, a speaker was quoted as saying: “Unnecessary standardization is the hobgoblin of small minds.” While this was a very deft paraphrase, it is even more interesting that the original quote actually belonged to one of many coined by a famous son of Boston, Massachusetts, Ralph Waldo Emerson sometime during the mid-1800s.

This year SIBOS, the annual SWIFT conference, took place in the historic city of Boston. What’s interesting about the statement above is that it espouses pragmatism over “slavish” adherence to ideological doctrine. We have seen a mix of the two philosophies practiced in our industry for some time.

While a great deal of good work has occurred in the standards space since the 1800s, there is still undoubtedly a long way to go. The question becomes then, how do we traverse the last few miles? How do we bridge the standards gap that keeps us in the sphere of “nearly there” as opposed to “mission accomplished”?

Let’s start by looking to the industry’s achievements. Global custodians have embraced the available standards, while many of their counterparties have also bought in to the benefits. Most of the software vendors that have solutions in this space have jumped aboard the ISO 15022 train, and data vendors have entered the fray under the stewardship of the Market Data Provider User Group (MDPUG). Why then does so much faxing still persist? And why is there still so much manual intervention . . . and more worryingly, interpretation?

The answer lies in the notion of dialect. We can be speaking the same language but still fall short when it comes to understanding. The same is true of the standards that we employ in the corporate actions space. The market practice groups have done a great job of clarifying how ISO 15022 can be used, but they stop short of insisting that it should only be implemented one way. And this is where the trouble starts . . .

Clearly, the flexible nature of the structure of ISO 15022 was an attempt to ensure that the broadest possible range of users could employ the standard across all the markets that it was required to serve. However, without any form of regulatory mandate to concentrate the minds of the practitioners themselves, there are many opportunities for cementing different regional market practices rather than discussing how the global market could be best served. Undoubtedly, the Securities Market Practice Group (SMPG) templates and the more recent Event Interpretation Grid have helped a great deal, but they are not mandatory. Then

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there is the fact that MT564s can be constructed differently and still be “compliant” as far as the standard goes . . . but very difficult to process if the chosen flavor is not familiar to your processing engine.

All this has been happening for some time now and there is a growing sense of “standards fatigue;” that is a pity because there appear to be two major developments on the horizon.

One development is SWIFT’s STaQS (Simulation Testing and Qualification Service). Currently being used in the payments world, this facility could provide an ideal way for market participants in the securities world to ensure that their corporate actions messages conform to the broader market’s view of how they should be constructed.

The other development relates to which ISO standard is used to convey corporate actions messages. At present it is ISO 15022, but according to SWIFT, that will be changing over the next few years. Hitherto, the message has been that ISO 15022 would continue to be used for the foreseeable future for areas of business where it was already an established component. As of the past few months, however, the message has changed. It now appears that the MT564s will be replaced with an MX series of messages in ISO 20022. This raises two questions:

- 1) What effect will this announcement have on the current adoption of standards in the corporate actions world? The worry is that that current projects that are striving to achieve greater STP may find it harder to get continued funding given that a new corporate actions standard is now on the horizon.
- 2) What long-term effects will this have? It may just present a great opportunity to try and ensure real world interoperability – the opportunity to reduce the overall number of permutations to the core elements of the business logic that needs to be conveyed . . .

So what of our dear old friend the hobgoblin? While it is certainly true that we ought not to get carried away with standardization for its own sake, Ralph Waldo Emerson also

said: “Shallow men believe in luck. Strong men believe in cause and effect;” “An ounce of action is worth a ton of theory” and “Common sense is genius dressed in its working clothes.”

So, true interoperability is not going to happen of its own accord; we need to get on and execute on the plans we have . . . and sometimes the obvious solutions are the most effective.

Smart man that Mr. Emerson.

For additional information, please contact Nat Sey at nat.sey@interactivedata.com.

Interactive Data Offers Non-U.S. Dollar Denominated Fixed Income Evaluations for 28,000 Issues Covering 33 Currencies; New Target Markets Include Egypt, Turkey and Russia

For years, the globalization of the securities markets has been widely discussed in the financial services industry. However, due to challenges with operations, clearance and settlement costs, it was historically a cumbersome and expensive proposition to invest in non-U.S. dollar denominated securities, especially fixed income securities. While the increase of exchanges around the world brought improvements for equities, commodities and currencies, the process remained challenging for fixed income.

This has changed for the better in recent years, as a variety of developments and trends has led to a more viable global market for fixed income securities. These developments include technologically-driven improvements in communications, data flow, and funds transfers, among others. In addition, various socio-political developments such as the creation of the European Union, the emergence of post-Soviet Union capitalist republics, and the rise of new economic powers such as India and China have combined to create cross-border demand for capital (as well as vast pools of investible wealth). While the U.S. arguably remains the world's foremost economic power, it is clear that going forward there is likely to be a greater number of influences in the global economic and financial markets.

Collectively, these and other factors have fueled the growth of what has been labeled Emerging Markets Debt (EMD). While the term "emerging markets" was once associated with under-developed nations or geographic regions, it has evolved to represent a variety of newly industrializing countries that are eager to tap into the global supply of capital to fuel their growth.

On the demand, or buy-side of the equation, investment managers have been under pressure to generate higher returns in a historically low rate environment – and EMD has presented many lucrative yield opportunities. While still associated with relatively higher volatility and risk, EMD can provide a way for investment managers to achieve their diversification objectives. Additional buy-side demand for the EMD market comes from the established pattern of newly created wealth in emerging nations being re-invested in the securities of their home countries.

Interactive Data Pricing and Reference Data has been receiving an increasing number of requests from clients for broader coverage of non-U.S. dollar denominated emerging market debt. The Company's current coverage of non-U.S. dollar securities stands at approximately 28,000 issues, representing 33 different currencies. Interactive Data Pricing and Reference Data has re-allocated evaluation resources and addressed workflow processes to facilitate expansion of coverage of emerging markets debt. The initial target markets, based on client request and prioritization, are Egypt, Turkey and Russia, and the Company now offers evaluations of fixed income securities denominated in these nations' local currencies.

To help prioritize future EMD products and services, Interactive Data Pricing and Reference Data is interested in client feedback regarding EMD developments and coverage needs.

For additional information, please contact Bill Ward at william.ward@interactivedata.com.

Analyzing “Trigger Levels” – Identifying When Funds Decide to Use Fair Value Methodologies

The practice of employing a fair value methodology to estimate the value of international equity securities at the time of net asset value (NAV) calculation has gained nearly universal acceptance in the mutual fund industry. This is a result of both heightened regulatory scrutiny as well as quantitative research, which supports the view that a systematic approach to fair valuation can effectively reflect current market conditions. This is also exemplified by the 150+ funds currently receiving Interactive Data’s Fair Value Information Service. While utilizing fair value methodologies has become more widespread, how often are these procedures called upon by funds? Our research shows that over the past few years the industry has gravitated towards more frequent usage of fair value methodologies, with a number of funds preferring to exercise such procedures on a daily basis.

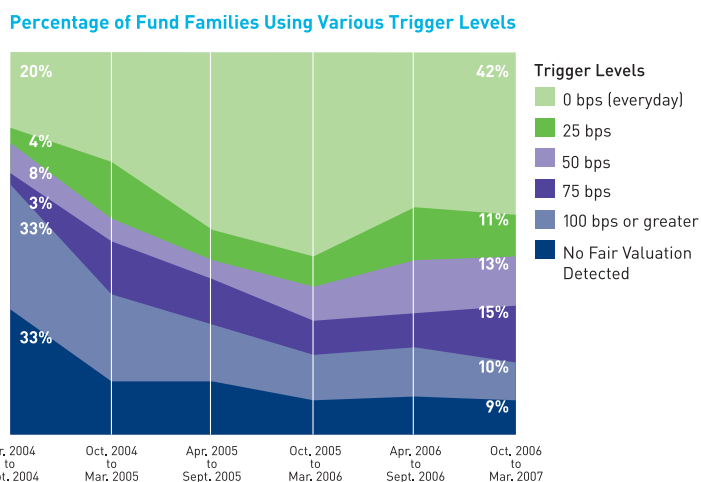
The most common approach to managing this decision is the use of “trigger levels.” For example, a fund may choose to invoke its fair value procedure if a proxy (e.g. the S&P 500® Index Futures) moves by 50 basis points (bps) or more, in absolute terms, between the time that the local market closes and the time the fund strikes its NAV. In this case, the 50 bps trigger level signifies the occurrence of a significant event, requiring the fund to use its fair value pricing procedures.

Interactive Data Pricing and Reference Data conducted a study to estimate how often fair value procedures were used by a select set of funds over a three year period (April 2004–March 2007) and to estimate the trigger levels used by each fund. To accomplish this objective, we analyzed public NAV data for 166 international funds, representing 166 distinct fund families.

As a foundation for this study, we assumed that all of the funds used relevant market indicators as proxies to assist them in determining if a fair value process should be triggered on any given day, as demonstrated in our prior example with the S&P 500 Index Futures exceeding 50 bps. The trigger levels tested began at 0 bps, and increased in increments of 25 bps up to 300 bps, for each market indicator. We then created proxy international portfolios which included both fair value evaluations from Interactive Data’s Fair Value Information Service and local closing prices, depending upon the corresponding market indicator’s movement that day. To estimate how often each fund was using a systematic fair value methodology, we measured the correlation coefficients between each of these “trigger benchmark” returns to each fund’s NAV returns, adjusted for dividends. The trigger benchmark with the highest correlation to the fund over the six-month time interval was assumed to be the proxy used by the fund.¹

Our observations demonstrate a clear trend in the industry towards more frequent fair value procedures and lower trigger levels over the past few years, with the most prevalent currently being the 0 trigger level. Empirically based observations of mutual fund peers can assist a board of directors or pricing committee in decisions regarding what trigger levels are appropriate for their funds. In addition, many funds employ back testing at various trigger levels, and compare the performance of these test results. Such information can serve as a quantifiable objective input into the decision-making process. Additionally, Interactive Data offers customized reporting options to clients to assist in these determinations. For instance, the Public NAV Arbitrage Report can be a useful tool for examining how effective the present trigger level has been in the past at reducing predictability of NAV returns.

The following illustration represents the percentage of funds we estimated using each trigger level, for each of the six-month periods.²



For additional information, or to request a copy of the complete study, please contact Robert Haddad at rob.haddad@interactivedata.com.

¹ See e.g. Robert Haddad, *White Paper #13, What trigger levels are other funds using?* (2007). This paper provides a detailed explanation of the methodology employed in our study.

² Our estimation that approximately 9–10% of the fund families in our sample did not employ fair value practices from April 2006 to March 2007 is supported by the 2007 Fair Value Pricing Survey conducted by Deloitte & Touche, in which more than 50 asset managers participated. Deloitte reported that 9 out of 10 funds reported utilizing third-party pricing vendors to value foreign equities.

No CUSIP® Available: The Complexity of OTC Derivatives Processing and Valuation

"When questioned what were the top two most important challenges currently facing their firms for processing OTC derivatives, out of eight possible choices, the largest percentage of the audience, 25 percent, stated that it was the complexity of valuations and lifecycle management."¹

As can be seen from this excerpt from the 2007 Dealing with Technology survey, processing and valuation for over-the-counter (OTC) derivatives is still a developing field. OTC derivatives are simply a different animal than cash instruments, and it all starts with identification. Cash instruments can often be tracked by a slew of identifiers: CUSIP®, ISIN, SEDOL®, CINS and others. These identifiers unlock a world of information that is commonly understood to be associated with the security. Not so with OTC derivatives.

Take, for example, a relatively straight forward instrument, like an interest rate swap held by a mutual fund. Before the fund even executes a trade, the fund's legal and operations staff need to become versed with documents like the ISDA Master Agreement and 2006 ISDA Definitions. Once the trade is executed, the fund's portfolio manager, trader and accounting staff all need to be on the same page as to what is actually on the term sheet. In a typical interest rate swap trade, the following terms are negotiated: currency, start date for interest accrual, end date, reference rate, coupon rate, spread over the reference rate and notional amount of the trade. Additionally, counterparties may modify standard terms like fixed and floating payment frequency, business day convention and day count.

All of these terms must be captured to identify a position; there is no universal identifier available to simplify this job. This is analogous to identifying a bond, not by CUSIP, but by issuer, call schedule, coupon, maturity, seniority, and issue amount. But since investors can purchase their own custom designed OTC derivatives, there's no room for a standardized identifier.

Early on in Interactive Data Pricing and Reference Data's development of its valuation services for alternative investments, the Company noted the challenge of identifying OTC derivatives and transmitting derivatives information. Product developers at Interactive Data Pricing and Reference Data realized they must deploy a specialized tool at their clients' sites. The tool had to offer interaction however the clients were

organized. If one client tracks each trade individually, the tool must allow for individual entry of trade details. If another client uses spreadsheets, the tool must offer spreadsheet upload capabilities. If a third client has implemented an advanced derivatives repository, FTP file exchange also has to be an option. Anything less would not satisfy the varying sophistication of firms' OTC derivatives processing.

By providing these capabilities, Interactive Data Pricing and Reference Data's offerings can help clients work more efficiently by reducing manual processes and seamlessly integrating into their existing workflow.

For additional information, please contact Mark Heckert at mark.heckert@interactivedata.com.



Terms required for Interest Rate Swap valuation as seen in the Alternative Investments Valuation Service web page.

¹ Bergamaschi, Cecilia. [2007]. Panel: Automated OTC Derivatives Processing Grows. *Dealing with Technology*. Vol 3 No 50.

Developments in Fair Value Measurement

With an effective date of November 15, 2007, mandatory adoption of FAS 157 is just around the corner. For the last several months, auditors have prepared white papers and have worked together with reporting firms to understand how their current practices fit into the new fair value standard. And of course, pricing/evaluation vendors, like Interactive Data Pricing and Reference Data, have been looking closely at FAS 157 as well.

One of the key issues of FAS 157 as it relates to financial and investment companies is the establishment of a three tier fair value hierarchy for inputs to valuations: Level 1 inputs are "quoted prices (unadjusted) in active markets for identical assets or liabilities," Level 2 inputs are "observable for the asset or liability, either directly or indirectly," and level 3 inputs are "unobservable."

As one might infer from these definitions, a lot hinges on the meaning of observable and unobservable. This has become a focus of Interactive Data Pricing and Reference Data's discussions with clients regarding its evaluation services. FAS 157 defines observable as "inputs that reflect the assumptions market participants would use" as opposed to unobservable, which are "the reporting entity's own assumptions."

Interactive Data Pricing and Reference Data seeks to utilize observable inputs in its evaluation services, including available trade and market data. Because many fixed income securities do not trade on a daily basis, Interactive Data Pricing and Reference Data's pricing applications apply available information through processes such as benchmark curves, benchmarking of like securities, sector groupings, and matrix pricing to prepare evaluations.

Interactive Data Pricing and Reference Data has worked to develop resources to provide clients greater transparency regarding our evaluation methodologies and inputs. For each asset class, we've documented the key points of the methodology, model, and most importantly, the data inputs used in the evaluation process.

Along with Interactive Data Pricing and Reference Data's existing evaluation methodology documents, clients have found this to be an effective resource in their FAS 157 preparations. Jami Waggoner, Vice President Director of Financial & Performance Reporting with American Century, said "To prepare for FAS 157, we worked hard to do the inventory, understand the securities held across the funds and communicate with service providers to understand the inputs they use. Interactive Data's matrix brought greater clarity to their evaluations and helped with that process."

To date, Interactive Data Pricing and Reference Data has received significant client feedback to help improve the FAS 157 related documentation that it has created. In addition, on June 5, Interactive Data Pricing and Reference Data held its annual Funds Advisory Board, and FAS 157 was one of the most active topics of discussion. The Company continued the dialog with clients at recent meetings in Minneapolis, Chicago and Los Angeles, and plans similar sessions in Des Moines, Iowa on October 19, Boston on October 25 and New York City on October 30.

For additional information, or for a copy of Interactive Data Pricing and Reference Data's FAS 157 position paper, please contact Mark Heckert at mark.heckert@interactivedata.com.

New Analytix DirectSM Service Rolled out to Marketplace

Interactive Data has introduced a new service, Analytix DirectSM a unique offering of bond-level risk analytics available via a bulk file feed. Analytix Direct combines sophisticated analytic capabilities from Interactive Data Fixed Income Analytics and evaluated pricing from Interactive Data Pricing and Reference Data.

Analytix Direct can add value across an organization in critical areas such as risk management, client statements and custom reports, high net worth client web sites, fixed income research, decision support systems for traders, portfolio management, retail financial advisory services, surveillance and compliance, among others. In addition to forward-looking measures, Analytix Direct also provides historical time-series analysis for a variety of purposes, which may include feeding historical spreads into value-at-risk (VaR) models, or various proprietary or third-party risk, performance attribution or research models.

There are a total of twenty-four risk measures available: eleven via the standard service and an additional thirteen via Analytix Plus, an enhanced version of the service. These include duration, convexity, option-adjusted spread, average life, key rate durations, yield to maturity and yield to worst. The analytics are available across a broad spectrum of fixed income asset classes including government securities, federal agencies/GSEs, corporates, high yield bonds, municipals, mortgage-backed pass-throughs, CMOs, ABS and more.

Analytix Direct has already garnered positive feedback from existing clients and new prospects. This includes observations about how Analytix Direct can help firms save both time and money by eliminating redundant, expensive, and sometimes unreliable processes in multiple locations and help reduce risk by standardizing analytical methodologies and harmonizing data across an organization.

For additional information, please contact Bill Ward at william.ward@interactivedata.com.

NEWS IN BRIEF Highlights from Interactive Data's businesses

Interactive Data Introduces 4:00 PM (ET) Benchmark-Based Evaluations for U.S. Corporate and Government Bonds

Interactive Data Pricing and Reference Data has expanded its fixed income services by offering 4:00 PM Eastern Time (ET) benchmark-based evaluations for U.S. corporate and government bonds. Interactive Data Pricing and Reference Data can now offer clients the options of receiving 3:00 PM (ET) benchmark-based evaluations, 4:00 PM (ET) benchmark-based evaluations, or both, depending on their needs. Interactive Data Pricing and Reference Data continues to analyze approaches to expand its fixed income services to offer 4:00 PM (ET) benchmark-based evaluations for additional asset types.

Interactive Data Acquires Xcitek Market Data Business; Announces Plans for New Intra-Day Corporate Actions Service

In May 2007, Interactive Data completed the acquisition of the assets comprising the market data division of Xcitek LLC, as well as the market data assets of its affiliate Xcitax LLC, for \$25.3 million in cash. Adding Xcitek's world-class corporate actions collection, content and delivery capabilities has strengthened Interactive Data's broad portfolio of reference data offerings.

As a result of this acquisition, Interactive Data Pricing and Reference Data will introduce a new service that can deliver comprehensive corporate actions information throughout the day, helping clients to more effectively monitor events that can impact the financial markets.

The new Interactive Data Xcitek Intra-Day Corporate Actions service, which is expected to be available in the fourth quarter of 2007, can provide clients with notification of newly announced and revised events delivered every two hours. The service will cover over 40 corporate action event types, including mergers, tender offers, exchanges and rights offerings for U.S. and Canadian listed/traded securities. Intra-Day files can be delivered to clients in Interactive Data Xcitek's standard fixed format beginning at approximately 10:00 ET each business day. The combination of these files reflects all of the data collected for the standard end-of-day feed that is available at approximately 19:00 ET.

Interactive Data Pricing and Reference Data Expands Coverage of Merrill Lynch Indices

In July, Interactive Data Pricing and Reference Data added coverage for approximately 3,600 Merrill Lynch total return indices in local currency. Interactive Data can now provide its clients with a more comprehensive set of the Merrill Lynch family of fixed income bond indices that clients utilize for a variety of different functions, including as a standard benchmark for performance attribution. Historical information for these indices will be available going back to December 31, 1996, or the date of inception of the index, whichever is later.

Interactive Data Announces Powerful New Real-Time Desktop Solution for Financial Institutions

Interactive Data has introduced Market-Q,SM a powerful new web-based real-time market data desktop solution designed for financial institutions. Market-Q is designed to provide off-trading floor financial professionals, including retail brokers, wealth managers, financial planners, and traditional back-office users in customer relations with comprehensive financial data and sophisticated tools to help increase efficiency and assist them in making informed investment and financial decisions.

This new real-time market data desktop service offers an easily deployable web-based platform that combines custom workspaces, interactive charts, an embedded browser for research, option chains, a market depth feature, searchable news, alerts and data export capabilities in a single application. Market-Q, which was designed by Interactive Data's eSignal business in collaboration with the Company's Pricing and Reference Data business, can be accessed anywhere via a Web browser with no software download required.

Interactive Data Takes up the "Challenge"

In 2007, nearly 100 Interactive Data employees participated in the annual JPMorgan Chase Corporate Challenge[®] races in three cities: Boston, London and New York. The participants from Interactive Data joined thousands of other representatives from hundreds of corporations in a 3.5 mile run or walk around the respective cities, including Boston Common and Kenmore Square in Boston, Central Park in New York City, and Battersea Park in London. In conjunction with these Corporate Challenge[®] events and nine others events around the world, the JPMorgan Chase Foundation made a donation of more than \$500,000 to not-for-profit organizations.





Contact Interactive Data

For further information, please contact your nearest office or email:
info@interactivedata.com

**Interactive Data
Pricing and Reference Data**
32 Crosby Drive
Bedford, MA 01730
Tel: +1 781 687 8800
Fax: +1 781 687 8289

**Interactive Data
Pricing and Reference Data**
100 William Street
17th Floor
New York, NY 10038
Tel: +1 212 269 6300
Fax: +1 212 771 6987

eSignal
3955 Point Eden Way
Hayward, CA 94545
Tel: +1 510 266 6000
Fax: +1 510 266 6100

Interactive Data Real-Time Services
100 Hillside Avenue
White Plains, NY 10603
Tel: +1 914 313 4444
Tel: +1 800 431 2602
Fax: +1 914 313 4805

**Interactive Data
Fixed Income Analytics**
2901 28th Street, Suite 300
Santa Monica, CA 90405
Tel: +1 310 479 9715
Fax: +1 310 479 6333



Interactive Data

www.interactivedata.com