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FIXED INCOME

SPECIAL REPORT

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Credit Data Conundrum

Whenever equity markets hit trouble, we tend to see a "flight to safety" as investors pile into bonds and other credit instruments promising a guaranteed fixed income at maturity, without exposure to volatile stock markets. Whether a bond price rises or falls in the secondary market over its lifetime, it should still pay the agreed yield at maturity.

These securities require careful monitoring and analysis—for example of ratings, news and prices of a company's equity—to ensure that the issuer in question, whether a corporation or a government authority, does not run into trouble of its own that would increase the likelihood of it defaulting on the bond.

While some fixed-income assets are highly liquid, others that are either more thinly traded or are more complex can be harder to price and value. As the early days of the credit crunch revealed, liquidity correlates with transparency, leading to huge write-downs on portfolio value when the bottom dropped out of the market and existing valuations suddenly became unreliable. Since then, accounting bodies have mandated that firms and valuation providers should designate how they arrived at a valuation—and hence how reliable it is—using different levels of inputs ranging from model-derived prices to actual executed prices traded on open markets. However, while the credit markets remain less liquid than in the past, trades in some securities can be few and far between, meaning that firms must also find new ways of performing valuations and measuring risk, and must utilize as much information as possible to achieve a reliable result.

At the other end of the scale among the most liquid instruments, while opinion is split on this, some of our respondents say they are now seeing demand for low-latency feeds of fixed income data for firms wanting to deploy algorithmic trading strategies on bond markets. Should this take off, it will most likely result in more frequent quoting and trading, and a corresponding increase in the amount of data generated by marketplaces that must be consumed by vendors and end users. Though there are still barriers to widespread adoption of algo trading in the fixed income markets, it would create an even wider disparity between the way that liquid and illiquid assets behave, potentially making it harder to value some assets, despite greater availability of data overall. ■

Max Bowie
Editor, *Inside Market Data*

Inside Market Data

Max Bowie, **Editor**
Tel: +1 212 457 7768
max.bowie@incisivemedia.com

Jean-Paul Carbonnier, **Deputy Editor**
Tel: +44 (0)20 7968 4588
jp.carbonnier@incisivemedia.com

Vicki Chan, **US Reporter**
Tel: +1 212 457 7758
vicki.chan@incisivemedia.com

Lee Hartt, **Publisher**
Tel: +44 (0)20 7484 9907
lee.hartt@incisivemedia.com

Jo Garvey, **Business Development Manager**
Tel: +1 212 457 7745
jo.garvey@incisivemedia.com

Bernie Simon, **European Sales Executive**
Tel: +44 (0)20 7484 9891
bernie.simon@incisivemedia.com

Elina Patler, **Chief Subeditor (New York)**
Brett Gamston, **Subeditor (London)**
Matthew Crabbe, **Managing Director**

Claire Light, **Marketing Manager**
Tel: +44 (0)20 7004 7450
claire.light@incisivemedia.com

Lillian Lopez, **Senior Production Manager**
Tel: +1 212 457 7761
lillian.lopez@incisivemedia.com

Incisive Media
120 Broadway, 5th Floor
New York, NY 10271
Tel: +1 212 457 9400
Fax: +1 646 417 7705

Incisive Media
Haymarket House
28-29 Haymarket
London SW1Y 4RX
Tel: +44 (0)870 240 8859
Fax: +44 (0)20 7484 9932
E-mail: customerservices@incisivemedia.com

Incisive Media
20th Floor, Admiralty Centre, Tower 2
18 Harcourt Road, Admiralty
Hong Kong
Tel: +852 3411 4888
Fax: +852 3411 4811

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NEWS ROUNDUP

BondDesk T&T Bows Bond Data Add-in

BondDesk's TIPS and TechHackers subsidiary has launched a Microsoft Excel add-in that lets users populate spreadsheets with live data on treasury bonds from dealers contributing prices to BondDesk's trading platform.

Users access the data by downloading a software package of sample Excel sheets and a wizard to set up the product, BondDesk MD, which connects to BondDesk's servers via the Internet.

Ben Fortunato, managing director and COO of TIPS and TechHackers, says the data will interest anyone analyzing portfolios, managing risk or structuring securities using spreadsheet models that need benchmark bond prices.

The vendor is initially sourcing the data within the add-in from five dealers that contribute prices to BondDesk. "Users of the data will find the quality of prices and yields from BondDesk are of institutional quality, because they are prices from dealers that contribute to our platform. Any odd-lot adjustments are done within BondDesk's platform, so the result is a very clean institutional price," says Fortunato.

The add-in costs $95 per month, but Fortunato says most potential clients may only have a few users needing the software, and he would consider structuring enterprise licenses for firms that want to roll the data out more widely.

In future, Fortunato says he aims to add a broader range of treasury bonds, as well as data on corporate, municipal, and agency bonds from the BondDesk platform, which will include historical as well as live market data.

BondDesk will take a different approach to each new asset class—such as incorporating data from TRACE and the Municipal Securities Rulemaking Board, and data derived from pricing curves for corporate bonds—and that how the vendor defines each will be determined by the market. For example, the vendor's "@nalyst" pricing calculators are delivered as separate add-ins, since each asset class library has different rule sets. ■

Thomson Reuters Builds Evaluations Practice with Moody's, JPM Staff

Thomson Reuters has bolstered its evaluated pricing business with the acquisition of part of Moody's Evaluations unit and with key hires from JP Morgan's Pricing Direct fixed income and derivatives pricing business in New York—both exclusively revealed in *Inside Market Data*.

A Thomson Reuters spokesperson confirms that the vendor took over Moody's US municipal bond pricing service on Thursday, Sept. 3. According to the spokesperson, the deal "significantly enhances Thomson Reuters' pricing and content offering, enabling us to launch a proprietary US municipal bond pricing capability," and giving the vendor "full pricing coverage for every major asset class globally."

Sources say that Moody's has been trying to divest the unit for some time, and is likely to close down the remaining corporate bond pricing desk sometime in the fourth quarter of this year. Moody's acquired Mergent's Pricing and Evaluation Services fixed income pricing business at the end of 2007 (IMD, Jan. 7, 2008). But sources say that the vendor struggled to compete with larger players, whereas the business will enable Thomson Reuters to expand its presence in this area.

"The ratings business in general has been very challenging lately, and Moody's may simply want to focus on its core business," one industry source says. A Moody's spokesperson did not return calls for comment.

"Thomson Reuters is rounding out its menu of services for firms that need evaluations, especially those investing in different asset classes," says John Jay, senior analyst at Aite Group. "This all plays into a big market opportunity that may not be easy for a new player to enter, but where big players like Thomson Reuters have huge intellectual capital and expertise to draw on."

Thomson Reuters has also recently hired former Pricing Direct managing directors Bob Rose and Raj Gadkari; Jayme Fagas, a former executive director in JP Morgan's mortgage-backed securities business; Milton Miyashiro, a managing director of the bank's Financial Analytics and Structured Transactions (FAST) division; and Lisa Marks, executive director in the same division, to lead the business.

Rose becomes executive vice president and global head of structured planning and business development for the Thomson Reuters Pricing Service, while Gadkari becomes global head of structured finance and derivatives, with overall responsibility for pricing, and Fagas will specifically lead structured finance pricing. All three will be responsible for establishing relationships with multiple dealer desks to ensure sufficient coverage of asset classes and that the service is not tied to any particular pricing source, and to promote the brand to buy-side clients.

Miyashiro becomes head of regulatory compliance for the Pricing Service, responsible for oversight of its pricing methodologies across asset classes including loans, high-yield instruments and corporate debt, and for implementing operating procedures in line with relevant regulatory initiatives, while Marks will head the service's structuring team. Rose and Gadkari report to global head of pricing and reference data Tim Rice, while the others report to Gadkari.

The vendor already has around 200 staff worldwide dedicated to the Pricing Service-which provides evaluated prices for more than two million government, corporate and convertible bonds, asset-backed and residential mortgage-backed securities, and derivative securities three times per day-including almost 75 in New York, 12 in London and six in Asia, as well as staff in its offshore support centers in Bangalore and Beijing.

Rice says the vendor is increasing its focus on evaluated pricing in response to greater scrutiny on the quality and source of prices by market participants resulting from the credit crisis. "This is about becoming the strongest player in derivatives pricing globally. We want to be a one-stop-shop for evaluated pricing," he says. ■

CMA Adds Asian Cut of DataVision

CME Group fixed income and derivatives pricing subsidiary Credit Market Analysis has unveiled a third update time to its DataVision daily credit default swap pricing service, to reflect prices at the close of Asian market trading.

DataVision, which already offers CDS prices at the close of trading in both New York and London, has now added an Asian pricing update to reflect CDS market closing prices at 4:30pm local time in Tokyo. The Asian update covers end-of-day prices for CDS contracts referenced to Asian entities—including roughly 200 single-name, index and index-tranche CDSs—which CMA will also continue pricing at the close of both New York and London trading.

The vendor calculates its end-of-day prices by aggregating quotes contributed from buy-side firms active in the CDS markets, and then overlaying its own pricing algorithms to derive consensus prices based on that raw data.

In addition to offering consensus prices via vendors such as Bloomberg, the data is distributed directly to clients via daily emails or FTP download.

The prices are principally designed to better service the vendor's growing local client base in Asia by allowing them to mark their CDS positions to market using prices that reflect the close of local market trading, though they can also give traders in other regions an indication of activity during overnight trading on Asian markets. "If you look at the biggest movers in the early part of the morning in London, there are often a lot of Asian names on there—so capturing that action is important," a CMA spokesperson says.

The vendor established a presence in Asia last year when it opened a local sales and support office in Singapore headed by Andrew Meyer. Officials say the Singapore office continues to pick up business in the region, and is on track to meet its targets for 2009. However, CMA will continue to manage all data quality processes associated with collecting and distributing the Tokyo data from its London office and will provide support from London, New York and Singapore. ■

MTS Delves Into Historical Data

European fixed-income trading platform EuroMTS has expanded the range of historical data it provides to clients for analyzing market events and developing and testing their trading or hedging strategies.

The service is not specifically targeted at algorithmic traders, since fewer firms trade fixed-income securities algorithmically than in equity markets, where tick data services are common to support back-testing of algorithmic strategies. Having access to detailed market information on a tick-by-tick basis will help firms refine their trading strategies by understanding market movements and correlations between different asset classes, irrespective of how they execute trading strategies.

Market makers may use the data to refine hedging strategies and to understand historical market anomalies or attempts to manipulate the market. EuroMTS is delivering the historical tick data via a Web site developed with UK-based reference data vendor Exchange Data International that offers access to other static data, such as reference data and daily open and closing prices. Users need only pay for the data they require, and can download it in several formats such as Microsoft Excel while academic users can access the data at reduced fees. ■

DoJ Probes CDS Data Business

The US Department of Justice (DoJ) began an investigation earlier this summer to identify anti-competitive forces in the credit derivatives data business.

Although precise details of the investigation remain unclear, derivatives data provider Markit issued a statement that it "has been informed of an investigation by the Department of Justice into the credit derivatives and related markets" and "will work with the Department to provide any information requested."

The statement prompted speculation that the probe centers around Markit's ownership structure, which includes many of the leading credit derivatives dealers as shareholders, or on Markit's dominance as a provider of credit derivatives data. Although competition exists for credit default swap data, where firms such as Credit Market Analysis and Moody's Credit Quotes business offer similar services, Markit has few rivals in its provision of index and reference data for credit derivatives.

Markit also dominates credit derivatives index data, following its 2007 acquisitions of the International Index Company and CDS IndexCo (*IMD*, Nov. 19, 2007).

In addition, Markit's Reference Entity Database of standardized codes to identify the underlying entity referenced by each CDS contract—which Markit acquired in 2003 from founders JP Morgan, Deutsche Bank and Goldman Sachs—has established itself as such an industry standard that some have expressed concern about Markit's monopoly over the codes (*Inside Reference Data*, June 2006).

Markit has attempted to dispel concerns with attractive deals for firms that find the cost of RED codes prohibitive, including allowing buy-side firms that only trade "light" volumes of CDSs to access RED for free (*IRD*, June 2008), and making RED codes freely available on its Web site for buy-side firms using them to confirm CDS index trades via the Depository Trust and Clearing Corp. (*IRD*, April 2009).

At the time, a DoJ spokesperson confirmed that "the antitrust division is investigating the possibility of anti-competitive practices in the credit derivatives clearing, trading and information services industries," but declined to comment further on the nature or timeframe of its investigation. ■

SPONSOR'S STATEMENT

The Case for Higher Data Education

The turbulence and increasingly complex nature of credit instruments during the economic crisis has underscored the need for data professionals to be better educated about the markets they serve. By Rafah Hanna, head of MTS data, Euro MTS

Rafah Hanna, Euro MTS

Human beings are meaning-seeking creatures, and unless we find some pattern or significance in our lives, we fall very easily into despair. This hypothesis also sounds like a pretty good description of the foundation of the credit crisis at some level, wouldn't you agree?

Consider it this way: Meaning-seeking = data and analysis; Pattern or significance = opportunities and prospects; Despair = look around you… need I say more?

Data plays an important part in our quest, since it is not only a vital means of communication, but also helps to articulate and clarify the incoherent turbulence of our financial models, our methodology of using the data and, in conclusion, the decisions we make as a result. Simply putting data into a program or application gives it a luster and appeal it did not have before.

For example, in the fixed income markets, we see that governments are now issuing debt in multiples of the levels that they forecast circa two years ago. As a result, this has meant that there is a clear movement to have as much data as possible (real-time, and reference data, as well as historical) from the golden source benchmark providers of data—so-called "flight-to-quality" data demand.

With demand for data so high, despite cost-cutting initiatives, we need to ensure that as an industry, we are attracting and keeping the right caliber of people, and that the industry has the foresight to train, develop and ensure the highest standards of knowledge and professionalism are applied and maintained. The initiative by data industry association FISD of introducing a syllabus, a formal examination, and therefore a qualification is a progressive, credible idea that will have a greater (positive) effect upon our industry than most people think.

It is no longer enough for market data managers to simply look at their bottom-line costs, undertake simple studies as to who is using what, then go and negotiate with those suppliers. These are all beneficial, but only scratch the outer surface of what market data spend—and therefore effective market data strategies—is really about.

It is no longer enough for market data managers to simply look at their bottom-line costs, undertake simple studies as to who is using what, then go and negotiate with those suppliers.

At MTS, every member of our data business will be undertaking the FISD's syllabus and examination. This not only shows the faith we have in the FISD and those putting in the hard work of working out the finer details of the syllabus, but it shows the need for our industry to start exploiting the sea of knowledge we have all acquired and used effectively—but now for the benefit of those who would benefit the most.

The time has come for data education to be taken seriously, as market data is a serious career opportunity (On a recent trip to New York, I asked a friend if he still enjoyed working in our industry, to which he replied, "Every time I look at my house, I am reminded of how much I enjoy it!").

I think that the average decision made within our industry, as a direct result of the FISD education initiative will, over time, be of a higher quality than without this initiative. This means that products are likely to have a longer shelf life as clients will be more aware of alternatives, industry issues and how products and services have developed. It means that there will be a higher degree of strategic thinking at a market data level on issues which may have an effect on spend today and tomorrow. It also means that whereas before we had, at times, an insular way of thinking (let's be honest, we've all done it), there is an alternative to consider (because that's what the market data industry is all about—choices), borne out by an education program that everyone has an equal opportunity to follow and, most importantly, to excel at.

Competition in market data is nothing new among corporations, but new thinking, and therefore an element of competitive advancement within our market data management colleagues has been somewhat stifled. This is something that needs to be changed.

I believe that this education program can become a catalyst for change. While it offers every incentive to reach a minimum level of understanding about core issues, it also, critically, offers ample room for people to become experts in their chosen fields, and indeed, a variety of fields—which is exactly the challenging progression that is required.

Today, market data is seen by some as a bad word. Hundreds of millions of dollars are spent in its name, much good (and damage) comes from it, we all use it—after all it's the industry that pays us. Education has never incurred a loss, which is why we should support our industry to make that knowledge accessible to us meaning-seeking creatures.

ROUNDTABLE

Crunch Time for Credit

The role of credit derivatives and complex fixed income securities in precipitating the fiancial crisis is prompting many firms to re-think the way they trade, value, and perform risk management on fixed income instruments, driven both by competitive pressures and regulatory forces. Here, a panel of market participants share their insights on the key issues affecting the marketplace as it recovers from the credit crunch.

IMD: How has the credit crunch and economic crisis affected fixed income trading desks and demand for data and analysis tools?

Daniel Johnson, valuation manager, LaCrosse Global Fund Services: There is significantly less liquidity in the market and a greater need for reliable market data. The risk of default is considerably higher and all positions require increased monitoring.

Josh Feldstein, former assistant vice president of market data sourcing at Credit Suisse: The effect on fixed income trading has been manifold. Many firms that engage in proprietary trading have had to adopt a far more cautious approach as their capital has eroded, essentially creating a scared bettor. The demand for data hasn't changed but there likely will be greater scrutiny with respect to the quality of the data. Derivatives will now be approached with greater circumspection, perhaps reverting to the original intent of using it as a hedge against risk rather than treating it in the more speculative way of recent years. As for analytical tools, I think that this will remain in a holding pattern. In a crisis situation there is the rush to find something more efficacious, the proverbial killer app. But risk analytics are contingent upon a rational market model. In a market that is either in the throes of irrational exuberance or great despondency, these analytical tools will not possess the requisite predictive power to make them valuable.

Bill Gartland, director of market data, Tradeweb: At the height of the liquidity crunch, price volatility spiked, as the markets worked to reduce leverage and investors sought refuge in safe havens, such as US Treasuries. Like many vendors, we had clients who went out of business and others who became acutely cost conscious. Yet, overall, our market data client base grew, as the need for accurate, continuously updated pricing data has never been greater.

Chris McGuigan, manager, information services, MarketAxess: The credit crunch has primarily impacted liquidity in the credit markets. Larger dealers reduced their balance sheets and were reluctant to put more capital at risk. In response, MarketAxess has on-boarded over 30 regional dealers to enhance liquidity available to our buy-side clients, especially in the smaller trade sizes, thereby improving the client experience on our platform.

With regard to data, demand has increased from client's risk and valuation groups. Valuation and price analysis experts are placing a renewed focus on accurate, reliable market data to help investors and dealers with their pre- and post-trade analysis.

Deirdre Sullivan, vice president, SIX Telekurs USA: Frozen liquidity and the resulting trading malaise in some of the fixed income markets triggered a distinct uptick in demand for evaluated pricing—and in particular, transparent pricing from independent third parties.

We haven't failed to notice the irony that mark-to-market accounting has been blamed for exacerbating the credit crisis while at the same time the lack of traded prices has intensified the need for evaluated prices so that institutions can properly adjust their capital reserves in the wake of the credit/liquidity crisis.

Richard Klijnstra, portfolio manager, Kempen Capital Management: More information regarding the OTC market is necessary to increase transparency. The market has been driven by technicals a lot, so more information will help.

Rafah Hanna, executive director and head of MTS data, Euro MTS: We have seen a significant increase in interest in our market data. With issuance of government debt at multiples of that expected for the coming years, it is no surprise we have seen such an increase in interest. Couple this with the "flight to quality" aspect—the higher-rated, more secure investment potential of government bonds and again, it is no surprise we have seen such an increase in interest.

Interest in analysis has also certainly grown and we have seen a proliferation in the number of institutions looking to offer analysis tools and services with an increased focus on fixed income. These vendors and service providers are actively looking for fixed income data sources that end-users will understand and trust. This is critical; more and more, we are all looking at the data we see and asking where it is from, can it be trusted? Analytical output is only as good as what you put in.

> **"I believe there is a need for more mandatory trade reporting/TRACE-type datafeeds—especially in Europe and the Asia Pacific region—which could provide simplified access to market information that could be utilized as an input to valuation processes."**
>
> Shant Harootunian, managing director, Evaluated Services, Interactive Data

Shant Harootunian, managing director, Evaluated Services, Interactive Data: Regulators have actively responded to the market turmoil and are continuing to increase their demands for transparency and risk management. For example, market volatility has been a factor in both the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) proposals and comments to help clarify the continued importance of fair value measurement. The primary principles that underlie both FAS 157 and the IASB Fair Value Measurement exposure draft are transparency and the use of an exit price.

We have observed an emerging trend in the front and back offices to have access to consistent data. Previously, each area worked independently, often using different data for their own purposes.

John Jay, senior analyst, Aite Group: For the most part, trading desks, amongst all the different functions within an organization, usually possess the most robust data and analytical capabilities. However, it is the support areas (e.g., risk management, internal auditors) that now demand the same level of capabilities. In this way, front through back offices will have consistent views on portfolio risks and valuations. The key is providing adequate justification of pricing and risk metrics for both internal (e.g., senior management) and external (e.g., investors, regulators) constituents.

IMD: Lack of transparency and an inability to price some instruments accurately were two factors behind the crisis. What has the industry done since then to increase transparency and data quality?

Jay: The industry is taking seriously the deficiencies in the pricing and valuation process that became evident during the credit crisis. Firms that previously did not address conflict of interest issues or data quality, for instance, are now finding that their clients do indeed look at such issues. As such, many firms are now expending resources to ensure that they themselves can provide robust explanations to their clients. Many large firms already have the adequate or near-adequate compliance infrastructures. On the other hand, smaller firms (e.g., small hedge funds) will have a cost and process burden in building out their compliance areas.

Johnson: There have been attempts by a number of organizations to provide new pricing and data services to the market. Unfortunately, due to the drop in liquidity there is less price data out there as market participants pull out of markets, close out positions or stop providing market making services. This has been combined with an increased reluctance from knowledgeable participants to provide pricing information to third parties. The one notable exception to this has been the CDS big bang project, which has gone a long way to standardizing the valuation process for CDS contracts.

> **"We have seen a proliferation in the number of institutions looking to offer analysis tools and services with an increased focus on fixed income. These vendors and service providers are actively looking for fixed income data sources that end-users will understand and trust. This is critical; more and more, we are all looking at the data we see and asking where it is from, can it be trusted? Analytical output is only as good as what you put in."**
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Interactive Data

Shant Harootunian
Managing Director
Evaluated Services
Interactive Data
Tel: +1 877 462 3843
www.interactivedata.com

Harootunian: From the vendor point of view, Interactive Data has been working with clients to offer a variety of expanded services and broader coverage to assist with fair value measurements and to help clients determine valuations for a wider variety of complex securities. We've recently launched a new monthly market data report to help clients prepare for fair value measurement under FAS 157-4, which provides additional guidance to preparers of financial statements for determining when the volume and level of activity for an asset or liability have significantly decreased and for identifying transactions that are not orderly. A key principle of our evaluations process is to review market information and identify activity that may not be indicative of orderly transactions.

Our clients can also now submit and track evaluation inputs requests online via our 360View service. This service also currently enables clients to review key assumptive data used in the evaluation process for structured securities including collateralized mortgage obligations (CMOs), asset-backed securities (ABS) and commercial mortgage-backed securities (CMBS). Through an exclusive agreement with Prism Valuation, Interactive Data also offers a valuations service for complex OTC derivatives and structured products, including transparency and discrepancy reports.

We have also continued to broaden the capabilities of our Fair Value Information Services, which can assist mutual funds in determining valuations for international equity securities, international equity index futures, and international equity options when market quotations are not readily available at the time of NAV calculation.

In addition, Interactive Data has been at the forefront in offering educational resources including industry webcasts, panel discussions, and informational meetings with our clients and their auditors.

McGuigan: Issues around hard-to-price securities continue to persist around structured credit and private placements such as the high-yield 144a non-TRACE disseminated bonds. Our response was to create strategic distribution partnerships with two key vendors, SQX and MBS Source, which provide data solutions in this space. SQX offers buy-side clients end-of-day broker price quotes on hybrid fixed income and derivative type instruments, based on approved dealer relationships. Instead of clients' pricing groups spending their time calling dealers for quotes, SQX's Web-based platform allows dealers to upload quotes on hard-to-price securities, so clients can download and price their portfolio in a more efficient manner. Our partnership with MBS Source provides clients with aggregated dealer quotes for mortgage- and asset-backed securities. This data is unique and not widely available to clients.

In contrast to structured credit, the corporate and municipal bond markets are transparent, with the TRACE and the MSRB initiatives firmly in place. Additionally, credit etrading has brought significant advancements for market participants seeking transparent and accurate data. Our platform captures and distributes real-time pricing and analytics of executed trades though our BondTicker web service, which is embedded into our trading platform. With FINRA's addition of buy and sell indicators to TRACE data, we are now able to determine net flows for an individual bond, sector, or maturity range, based on our proprietary volume estimates. This level of transparency is a major improvement in terms of pre- and post-trade analysis.

Feldstein: Transparency is a function of competency and character. Given that the bond market is an over-the-counter market, transparency will exist basically for institutions but not

> **"With illiquid instruments, there needs to be permission for greater sharing of information by price providers to the wider community. This will allow all participants to better understand the value of their holdings and provide greater transparency to investors. Increased regulation relating to valuation has made securities valuation harder."**
>
> Daniel Johnson, valuation manager, LaCrosse Global Fund Services

individuals, as individuals do not see the markup. Transparency in the corporate market has increased via TRACE (which was an outgrowth of the FIPS system via NASDAQ) EMMA for Municipal securities via the MSRB, ADF and TRF. For end of day data, there will always be a need for multiple providers to provide a means for evaluating any potential variances beyond an acceptable threshhold. This is often, though not always, a function of a different methodology employed. There will also be a greater need for truly independent ratings so as not to be held hostage to the traditional providers. This will also require that the ratings of the traditional providers not be considered necessary from a regulatory standpoint, thereby fostering greater competition.

Sullivan: At SIX Telekurs, we've seen an increase in subscriptions to our pricing services for illiquid/hard to value securities. We believe that this has resulted from the fact that the market is looking for services that meet very specific criteria:

Full transparency: Risk managers need to know how a price was calculated, and they need full understanding of the modeling and methodology employed and the key data inputs used in every price calculation.

Independence: Even when firms are capable of evaluating prices in-house, corroboration by an independent third party has become far more important, given regulatory and public scrutiny.

Automation: Using automated methods that don't rely on manual price adjustments is critical for consistency.

A final—but critical—requirement is coverage, because the market needs fair value pricing sources that can handle everything from the plain vanilla to the exotic, and from the merely illiquid to the toxic.

Gartland: While the chapter on the cause of the credit crisis remains to be written, the market data industry has taken steps to address the transparency and pricing challenges. Like many of our peers, we believe that by making more information available to the investment decision process, we can contribute to the recovery of the fixed income markets.

At Tradeweb, we have begun to include the last buy/sell trade prices for each instrument in our end-of-day pricing product. This gives subscribers to these products access to "executed trade prices from an orderly market." We have also increased our investment in the market data area along several fronts, including enhancements to our capabilities to deliver historical data throughout our product suite.

Hanna: There has been a lot of debate! We've all heard talk of a US-style consolidated tape in Europe; we've seen regulators provide advice on the suitability of data used in valuations etc. Further, there is some research being done into data sources for fixed income, such as the EPDA Guide on Pricing Discovery & Market Data on the European Government Bond Markets.

There is clearly a requirement for this data and papers such as the EPDA paper are helping to address this requirement, assisting end-users in finding the data source most appropriate for them.

IMD: What are the best ways to solve some of the inherent challenges around pricing and valuing complex or less liquid credit securities?

Hanna: Know your data. If you haven't gone direct to source, understand where the data has been taken from. What are you looking at—indicative or executable pricing? Evaluated or composite prices—what are they built on? If we don't understand the data how can we understand the risks of using it?

Question your data providers—there has been a proliferation in the number of trading venues and data aggregators, etc. Perhaps there is a data source you have not been made aware of.

Sullivan: First and foremost, quality reference data is an absolute must. In order to value a security, it is vital to have a complete picture of its unique characteristics, including issuer, term, optionality, related benchmarks, currency, payment schedule and so forth.

Once that not-so-small issue is addressed, the most expedient and effective solution to pricing and valuing complex/illiquid securities is to outsource the process to a best of breed third party provider.

At SIX Telekurs, we developed our own Fair Value Service that covers straight and zero bonds as well as FRNs, but for the highly specialized valuation requirements of illiquid and/or complex instruments, we've integrated pricing from Complex Securities Valuations, Inc., a firm that is squarely focused on this niche. But regardless of the source, we've concluded that the "best" approach is the one that delivers real transparency into the valuations, because unless the customers have full insight into the derivation of the prices, they'll never be able to satisfy the regulators or their stakeholders.

McGuigan: Since complex securities are traded less often and have more robust valuation schemes, the challenge is to find accurate, reliable data. Our strategic partnerships with SQX and MBS Source are designed to provide accurate pricing

Chris McGuigan
Manager, Information Services
MarketAxess
Tel: +1 212 813 6367
www.marketaxess.com

data for investors looking to execute or value complex trades. Both SQX and MBS Source provide end-of-day dealer pricing, which are observable market inputs that provide full compliance with FAS 157 Level 1 standards. We will continue to expand the range of asset classes available for our market data clients.

Jay: It is always best to have an independent entity provide prices and valuations so that conflict of interest issues do not arise. In addition, firms should have a formalized pricing governance infrastructure in place, including regular reviews and audits associated with quality of data as well as pricing methodologies. This is a very challenging exercise as the markets are also ever-changing in nature and firms must be able to adapt quickly to them.

Gartland: Access to more market-observable data and a more thorough understanding of the characteristics of each asset is at the core of addressing this challenge. For example, in "normal" times, it is easy to grow accustomed to using a flat 40 percent recovery rate when pricing a single-name CDS. From the early 90s through the middle of this decade, a low level of defaults was "normal." So, who cared? In 2004, the probability that an A-rated issuer, like GM, would default was so low, the recovery rate assumption had little impact of the value of the contract. Recent experience highlighted the importance of this "assumption" and exposed the reality that a single recovery rate for all issuers was a poor choice.

Harootunian: I believe there is a need for more mandatory trade reporting/TRACE-type datafeeds—especially in Europe and the Asia Pacific region—which could provide simplified access to market information that could be utilized as an input to valuation processes.

In addition, in the last two years we've seen a heightened focus on the more granular aspects of the underlying collateral of more complex credit securities. Firms are placing a greater emphasis on understanding and analyzing the various elements of the underlying collateral for securities in their valuation processes.

Feldstein: The question basically provides the answer. Because the challenges are inherent, they really can't be overcome. All that can be done is locate more and better sources of information as those markets mature. This will certainly be true with respect to the energy markets, both in terms of the traditional markets as well as those markets that will proliferate as we seek alternative sources.

Klijnstra: Keep securities relatively simple to be able to price them. Perhaps let the rating agencies price them if they are able to rate them.

Johnson: With illiquid instruments, there needs to be permission for greater sharing of information by price providers to the wider community. This will allow all participants to better understand the value of their holdings and provide greater transparency to investors. Increased regulation relating to valuation has made securities valuation harder as more and more participants are reluctant to share data with the market for fear of breaking market rules.

"Inevitably, evaluated prices must be a component of the pricing solution for most fixed income portfolios. The accuracy of the evaluated prices relies on the robustness of the pricing model. The good news is the current accounting standards favor directly observable market data, which is easier to validate."

Bill Gartland, director of market data, Tradeweb

IMD: Have accounting standards that mandate the quality of data inputs into valuations led to more accurate data? Or are executed prices the only reliable data points?

McGuigan: Given the lack of liquidity during the credit crunch, there was less indicative bid/ask market data available resulting in an increased reliance on executed trade prices, which are still the most valuable input in the pricing hierarchy. The FAS 157 accounting standards has helped market participants categorize data into Level 1, 2 and 3 inputs, further refining the definition of executable versus modeled data. Providing this level of color gives pricing and valuation professionals more confidence in their decisions to mark securities and as a result, helps improve the overall quality of bond pricing.

Klijnstra: Executed prices are not always reliable if there's a lot of stress in the market.

Jay: Accounting mandates have put firms on notice that not only must they have certain types of information, but also they review and correct any inaccuracies. Therefore, to the extent that this "scrubbing" process (either performed in-house or outsourced) is incorporated into the pricing and valuation process, market data accuracy has improved. On the other hand, an executed price might be reliable to the extent that it is observable. However, it may not be necessarily indicative of a fair value as the transaction may be an odd-lot, for instance. In most cases, though, an observable price trumps a calculated price.

Johnson: Accounting standards have encouraged firms to take a closer look at their own valuation process and encouraged them to put more thought and care into valuation. At the same time, firms are having to spend significantly more time classifying their prices in order to meet the approval of auditors who seem unsure on how to interpret the rules. It can also lead to "knee-jerk" reactions from some in the market to classify the pricing of an entire asset class as risky. Executed prices at the valuation date remain one of the best valuation methods, but this data often does not exist at every valuation date.

Daniel Johnson
LaCrosse Global Fund Services

Sullivan: The regulations and standards all say the same thing: that the "best" data for valuing a security is a trade price from a liquid and orderly market, and that any price other than that is to be afforded a lower level of reliability, or quality.

Which makes sense, because when those lovely, liquid-market trade prices are not available, judgements must be used to evaluate a price, and outcomes will vary based on the modelling used, on the data inputs, on the yield assumptions and so forth. When there are less observable/verifiable data inputs used in a valuation, the more judgement must be used, and therein is the crux of the mark-to-market debate: are the differences that result from these varying judgements really inaccurate or are they just differences?

But to answer the question, for now, reliability or quality is based on the observability of inputs, and if there are no reliable, observable inputs, then valuations will have to do. And when modelling is used, "accuracy" is a function of market acceptance of methodologies. Acceptance comes over time and with experience—just look back over the last 25 years at the evolution of the options and then swaps markets for an illustration.

Gartland: For more complex/less liquid instruments, executed trade prices are an important component of the valuation process but, unlike a blue-chip stock portfolio, one cannot simply take a 4pm end-of-month snapshot of the prices for each position to value the portfolio. You can see from the TRACE feed that only a relatively small subset of the eligible corporate bonds trade on a daily basis and even then, the "last" trade times vary widely, making difficult to compare the end-of-day prices across securities.

Inevitably, evaluated prices must be a component of the pricing solution for most fixed income portfolios. The accuracy of the evaluated prices relies on the robustness of the pricing model. The good news is the current accounting standards favor directly observable market data, which is easier to validate. So, the inputs for many models are cleaner, but how a particular model applies these inputs to an instrument's structure and what simplifying assumptions are made within the model can still have a significant impact on the resulting evaluated prices.

Harootunian: Executed prices can be a useful input for the valuation of a particular security, but they may be just one of many inputs, especially when valuing a thinly-traded security. An independent evaluation should represent an objective, good faith opinion as to what a buyer in the marketplace would pay for a financial instrument in a current sale between two willing parties, i.e. a non-distressed sale, based on market information available at the time. Interactive Data has teams of experienced evaluators who incorporate available transaction data, credit quality information and perceived market movements into the evaluated pricing applications and models for fixed income securities. We put an emphasis on building relationships with a broad range of market sources who can offer insight into market activity. By leveraging relationships with the buy-side, electronic trading platforms and other major market makers, Interactive Data's evaluators have access to a wide-range of market data. This helps us to provide evaluations that reflect the information that market participants would consider in pricing the asset.

"We see clients leveraging real-time technology not to support algorithmic trading, but rather to support automated bond pricing. Dealers are looking to manage their workflow more efficiently and have developed pricing algorithms to accurately quote bonds. By doing so, dealers are making markets live and producing more accurate, reliable pricing."

Chris McGuigan, manager, information services, MarketAxess

Hanna: They are a step in the right direction. I am not sure if they have led to more accurate data or to the search for more accurate sources. How many people use a generic "closing price" without question? No doubt the auditors reading this have questioned them.

Alongside executed prices are executable/tradable prices—of near equal value—and also evaluated/composite prices. There

is nothing "wrong" with these calculated prices, but we need to understand the components that have gone into them.

Feldstein: I don't know that accounting standards have accomplished this. It begs the question regarding the criteria behind those mandates, and what constitutes "accurate" data. In the end, executed prices are the only reliable data points. Anything else is theoretical and perhaps interesting, but not necessarily reliable.

IMD: In the more liquid asset classes, are you seeing demand for low-latency feeds of data on fixed income securities to support algorithmic trading?

Hanna: We have seen a considerable increase in interest from users who undertake this type of trading. Algorithmic trading in fixed income is in its infancy—government bonds trading even more so—but we have had significantly more demand for low-latency datafeeds, direct connections and further, associated data products, especially our historical data and reference data.

Bill Gartland
Director of Market Data
Tradeweb
Tel: +1 201 536 5725
www.tradeweb.com

Gartland: We are certainly seeing an uptick in interest in our real-time feeds for the major rates markets. To date, latency has not been a significant factor, given the predominance of the request-for-quote trading protocol in the dealer-to-customer segment of the market. Within our trading engine, the speed with which price updates are delivered is critical.

McGuigan: We see clients leveraging real-time technology not to support algorithmic trading, but rather to support automated bond pricing. Dealers are looking to manage their workflow more efficiently and have developed pricing algorithms to accurately quote bonds. By doing so, dealers are making markets live and producing more accurate, reliable pricing.

In addition, we see an increase in the demand for delivery of corporate bond data via FIX, as a low-latency option for corporate bond data feeds.

Sullivan: Although low-latency data feeds are not an area where we compete, we are seeing demands for low-latency feeds across all asset classes, including fixed income.

> **"Meeting the needs associated with existing sectors within fixed income is already challenging enough. Much of the required market or reference data is available already. The challenge is for firms to build and maintain a robust pricing and valuation infrastructure (e.g., consolidating data from disparate sources, auditing processes) into their DNA."**
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> John Jay, senior analyst, Aite Group

Harootunian: We haven't yet seen any real demand for low-latency feeds in the more liquid fixed income asset classes, but we believe that the industry will move towards using more real-time and intra-day data. Interactive Data already provides real-time data and has the infrastructure to deliver low-latency feeds. We have leveraged this infrastructure to provide a service that provides fixed income valuations throughout the trading day, on an hourly basis.

We have also leveraged our real-time infrastructure for our Basket Calculation Service, which is designed to provide clients with the intra-day indicative values for equity and fixed income ETFs and ETNs, as well as values for market indices, that include equities, fixed income securities, currencies and commodities. The Basket Calculation Service uses inputs based on fixed income evaluations and real-time data from exchanges around the world to calculate and deliver updated information every 15 seconds.

Feldstein: I'm not aware of such demand, but if there is, this would not apply to all fixed income markets. In the US government market, your primary dealers are—owing to their status as determined by the Fed—going to have distinct advantages because they also have certain responsibilities vis-a-vis US monetary policy.

IMD: What will be the next hot asset classes in fixed income, and what new datasets will firms and data providers need to source to enable trading in these assets?

Sullivan: As the global markets reawaken from the slump, there will probably be two areas of increased activity in the fixed income markets: conservative, "flight to safety" investments made by those looking to protect against inflation (e.g., Treasury Inflation-Protected bonds in the US) and riskier—but still vanilla—investments in emerging markets for those looking to tweak their returns.

I think that the fixed-income derivatives markets will be relatively calm for some time, as and until liquidity is restored and also until the central clearing debate is resolved. For the emerging markets, it will be critical for vendors and firms to have a complete grasp of the issuer details as well as any local or cross-border regulatory or tax implications of holding such securities.

Deirdre Sullivan
Vice President
SIX Telekurs USA
Tel: +1 203 353 8100
www.six-telekurs.com

"The regulations and standards say the 'best' data for valuing a security is a trade price from a liquid and orderly market. Any other price is to be afforded a lower level of reliability, or quality. When there are less observable/verifiable data inputs used in a valuation, the more judgement must be used. Therein is the crux of the mark-to-market debate: are the differences that result from these varying judgements inaccurate or just differences?"

Deirdre Sullivan, vice president, SIX Telekurs USA

For both the emerging markets and for fixed income derivatives, it will be important to track and link each instrument to its most liquid trading place and to the CCP, as applicable. And of course, for all instruments that may be thinly traded—or not at all—it will be essential to have a pricing source that can quickly and seamlessly add new instruments to the daily evaluation process.

Harootunian: I believe there will continue to be fewer securitizations in the post-financial market turmoil period. Many asset classes are re-trenching, especially the more exotic types. Still, Interactive Data is continuing our strategy of expanding coverage of financial instruments, including new types of assets that are being re-securitized. For example, The Federal Reserve Bank of New York's Term Asset-Backed Securities Loan Facility (TALF) is designed to increase credit availability and stimulate the securitization markets by providing up to $200 billion in loans to finance the purchase of eligible highly-rated securities backed by auto loans, credit card receivables, small business loans and student loans. The introduction of government programs such as TALF has helped stabilize parts of the securitization market and we can now provide evaluations for TALF securities as well as for TALF liabilities through our exclusive agreement with Prism Valuation.

McGuigan: We see three up and coming asset classes: CDSs will continue to get regulatory scrutiny as the push for more transparency continues. This will result in more publicly available data. Fixed-income ETFs are becoming more popular and the need to accurately price these ETFs will increase. Agency bonds will get more attention in the near future when FINRA expands TRACE to cover agency bonds.

Feldstein: The energy markets and derivatives will continue to play an increasingly prominent role. With ever greater pressure for finding alternative sources as well as making greater use of existing resources, both here and globally, the need for energy data as well as any data that bears a tangential relationship to it will become increasingly necessary. The derivatives market is going through an evaluative phase and there is still great uncertainty as to how to price these instruments. Traders, analysts and portfolio managers will need to acquire greater independent research and be less reliant upon the more traditional sources such as the ratings agencies.

Hanna: Let's review the trends industry wide: (i) the consolidated tape debate, (ii) the correct aggregation of data from the golden sources, (iii) ultra-low latency: all these point to two common factors—speed and quality of data. The trend, in my view, is that end users will now be looking to forward-thinking, innovative sources of data to form unique datasets with other sources of data, adding value across asset classes, rather than simply in fixed income alone. This is where the industry demand will end up, and the market leaders should have the foresight to move first and fast.

Jay: Meeting the needs associated with existing sectors within fixed income is already challenging enough. Much of the required market or reference data is available already. The challenge is for firms to build and maintain a robust pricing and valuation infrastructure (e.g., consolidating data from disparate sources, auditing processes) into their DNA. If there will be any "next hot" fixed income product to come along, it will continue to be from structured products and OTC derivatives where granular collateral and reference data remain the core of their value assessment.

John Jay
Aite Group

Johnson: The market needs to determine who the best data providers are for the next level of fixed income products, once you move away from on-the-run developed market government bonds. This data needs to be available to most participants at a reasonable price, so that all parties are on the same page when it comes to asset valuation.

Klijnstra: Let's try to have more transparency on derivatives before we start a new hot asset class. ■

SPONSOR'S STATEMENT

Transparency in the Valuation Process

The call for transparency in the financial markets is not new. But recent market turmoil and the regulators' response has escalated the call for improved transparency as well as the standardization of financial information. By Shant Harootunian, managing director, Evaluated Services, Interactive Data


Shant Harootunian, Interactive Data

Regulators are responding to the market turmoil and continue to increase their demands for transparency and risk management. Following on from Basel II, MiFID, Reg NMS, IAS 39 and UCITS III, new regulations, standards and directives are being proposed that will result in new compliance processes and procedures. This year, the Financial Accounting Standards Board and the International Accounting Standards have released proposals and comments to help clarify the continued importance of fair value measurement. The primary principles that underlie FAS 157 (Fair Value Measurements) and the IASB Fair Value Measurement exposure draft are transparency and the use of an exit price.

Interactive Data strongly supports initiatives to increase post-trade transaction transparency across the bond markets globally, and supports both the IASB and FASB in their goals to provide additional clarity regarding fair value measurements and to increase the convergence of accounting standards. Firms with global scale will be in a strong position to benefit from the proposed global convergence of accounting standards on fair value measurement. Interactive Data has responded to both the FASB and IASB with regard to FSP FAS 157-e and FSP FAS 157-4, and plans to respond to the IASB exposure draft Fair Value Measurement before the Sept. 28 deadline.

The valuation process is at an important juncture. Transparency and standards are fundamental to the valuation process. Financial firms are determined to better understand the components of the valuation process, including the underlying market data, model selection and calibration strategies. To accomplish this, clients want to drill down and review these inputs.

Using valuations from an independent third party can help reduce counterparty quote risk and can strongly support independent price verification, providing another perspective on the valuation of a firm's financial instruments. As a result of the market turmoil and regulatory and accounting developments, independent valuations of complex instruments, as well as evaluations of fixed income securities, are in increasing demand.

Complex instruments such as OTC derivatives and structured products—and most fixed income instruments—currently lack the price discovery mechanism that exchanges offer, and it is quite common for there to be limited trading in the secondary market following original issuance. Yet firms still need to understand the current economic value of these instruments. Consequently, an independent valuation should represent an objective, good faith opinion as to what a buyer in the marketplace would pay for a financial instrument in a current sale between two willing parties, i.e. a non-distressed sale, based on market information available at the time.

It is important that the methodology used to value the instrument is in line with the current market convention, and the valuation approach should be consistent with how a buyer or seller in the marketplace would also value this deal or similar deals. FAS 157 requires reporting entities to categorize the valuation of financial instruments by levels, based on the extent of observable (level 1 or 2) or unobservable (level 3) inputs. A similar notion of level 1, 2 and 3 inputs is proposed in the IASB Fair Value Measurement exposure draft. To assist financial institutions with their fair value obligations, it is crucial that supplemental information regarding the valuation be available in order to provide increased transparency into the valuation process. This can include disclosure of the underlying market data inputs used and the methodology employed.

Interactive Data has long offered informational resources about its methodologies, the types of inputs it considers, and specific inputs for select securities to help its clients with their fair value hierarchy determinations. Recent additional informational resources, including a daily market commentary that reflects activity in the US fixed income markets as of midday, are designed to help clients better understand Interactive Data's evaluations and the impact that daily market conditions may have on these evaluations. Clients can submit and track evaluation inputs requests online—and currently review key assumptive data used in the evaluation process for structured securities, including collateralized mortgage obligations, asset-backed securities and commercial mortgage-backed securities—via Interactive Data's 360View service. Through an exclusive agreement with Prism Valuation, Interactive Data also offers a valuations service for complex OTC derivatives and structured products, including transparency and discrepancy reports. Such support will continue to develop in response to changes in regulation and evolving industry practice.

With current market conditions, it is imperative that the core philosophies relating to portfolio valuation hold steady. Sound valuation procedures can enhance risk management operations, better preparing and positioning the business for economic and regulatory uncertainty ahead. ■

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