

Global Investment Technology®

Volume 17, Number 1

October 1, 2007

Strategic Business and IT Intelligence for the Securities & Investment Industry

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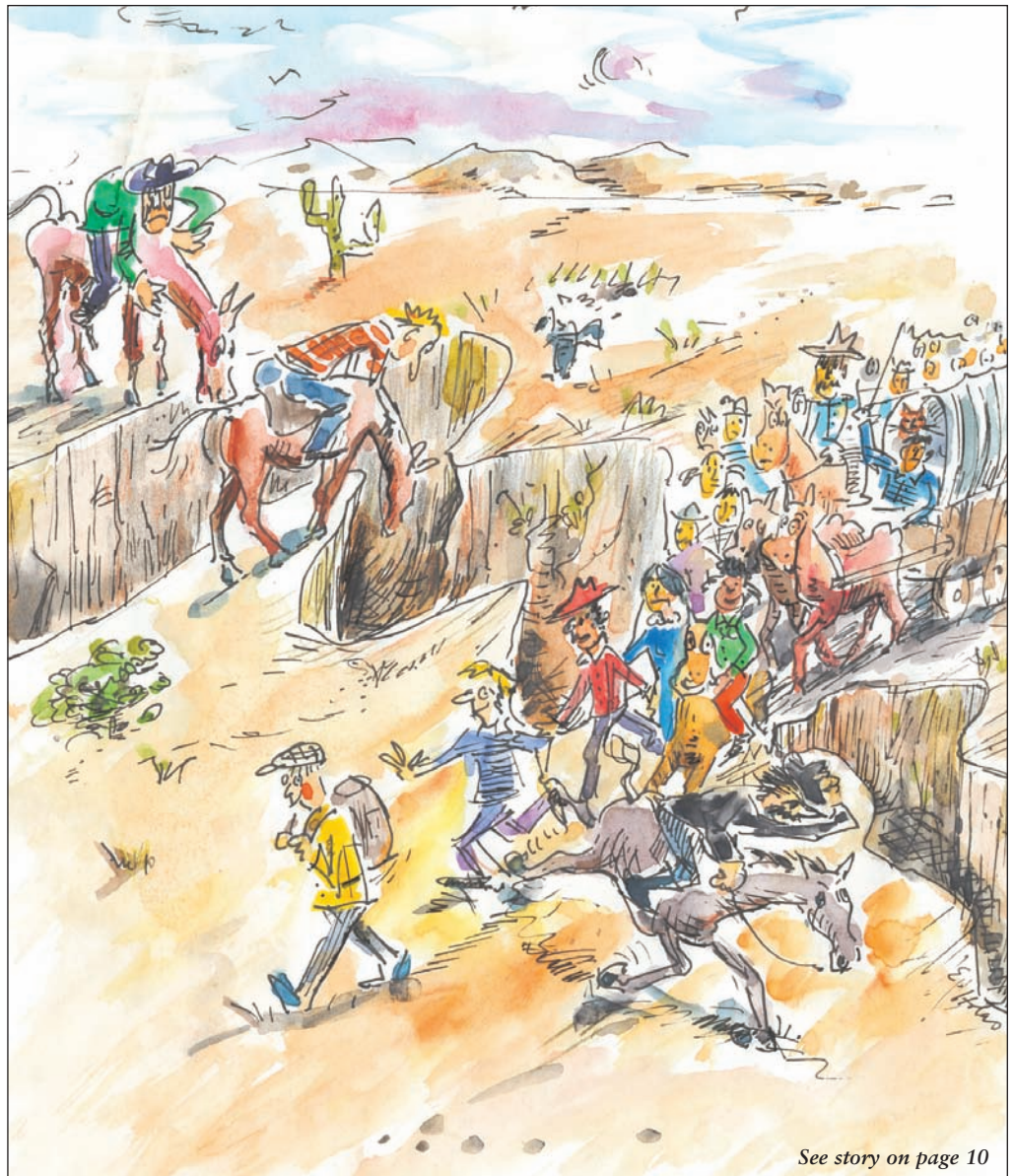
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INDUSTRY ALERT

NYSE's Price Compression Presages ECN Consolidation

NEW YORK — With the advent of a new group of ECNs (electronic communications networks), several block trading venues, and many firms' own internal trade execution platforms, exchanges such as the **New York Stock Exchange** and **The Nasdaq Stock Market Inc.** face increased competitive pressures.

NYSE Euronext, owner of the New York Stock Exchange and NYSE Arca Inc., has reacted to the current exchange competition for order flow with new pricing plans that take effect October 1. As of the third quarter of 2007, NYSE and Nasdaq represent 75 percent of the US equities market in average daily trade volume, a decrease of 5 percent over the second quarter of 2006, according to research by consultancy **Aite Group**.

NYSE Euronext has reacted to the current exchange competition for order flow with new pricing plans that take effect October 1.

Two of the newest ECNs, **Direct Edge** and **BATS**, each have 4 percent of the market, according to Aite, with other ECNs accounting for 2 percent, block trading alternative trading systems at 5 percent, regional exchanges at 3 percent and broker-dealer dark pools comprising 10 percent of the market.

NYSE will offer free agency block crosses and fee caps on mega block trades when committing capital on its markets.

The public markets can point to credible reference prices, but the erosion of their market share brings into question the credibility of their prices, according to Sang Lee, Managing Partner at Aite Group. "As the public market becomes smaller and loses credibility as an execution destination, the credibility of the public reference price will come into question," he says. "This would lead to uncertainty in the quality of executions received in various dark pools."

Meanwhile, the NYSE's changes in its fees include an increase of the NYSE Arca rebate from 20 cents to 25 cents per 100 shares for all customers; no fees for liquidity providers on the NYSE, with liquidity takers paying 8 cents per 100 shares; free agency block crosses and fee caps on mega block trades when committing capital; free routing to the NYSE from NYSE Arca using the new Primary Sweep Order on NYSE Arca; and a cut of the NYSE Arca fee for trading Nasdaq-listed securities from 30 cents to 25 cents per 100 shares.

Although the market is currently fragmented into 35 possible execution venues, liquidity will naturally migrate to the three or four largest venues, according to Lee of Aite Group. With expected pricing compression, market consolidation is inevitable, he adds. Public exchanges' market share will drop to about 62 percent by 2011, Lee predicts, although it will then be steady at that percentage. □



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Global Investment Technology
– Electronic Edition (ISSN 1058-3920) is published biweekly at a rate of \$995 per year. Electronic licenses, reprint and web-posting rates available upon request.

Global Investment Technology
is published by:
Investment Media, Inc.
820 Second Avenue, 4th Floor
New York, N.Y. 10017
Tel: 212•370•3700
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www.globalinv.com

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Heeding the Future

Poor Ben Bernanke, Federal Reserve Board chairman, whose center-stage spotlight continues to be preempted from the wings by his venerable predecessor, Alan Greenspan.

If only Greenspan would retire gracefully and ride into the sunset with his handsome \$8.5 million book advance and enjoy life. If only the news media would stop cupping a hand to hear Greenspan's every sneeze, or stop putting large headlines over what he has to say as a private citizen, now driven by his own economic self-interest, even without the huge research staff and other resources he commanded as the Fed's chairman.

But Greenspan, a devotee of Ayn Rand and her writings that extol the pursuit of one's own self-interest and happiness as a guiding principle, may just be looking out for Number One. What's age got to do with it? If Wall Street firms choose to entertain clients with Alan Greenspan as their dinner speaker, at his price, why not? After all, we work in an industry where money and how to make more of it comes first.

Moral debates may not always matter, but gaining perspective on where we are and where we are headed, both in our lives and in our work endeavors, remains essential. There is something to be said, therefore, for looking beyond one's immediate concerns and focusing on the bigger equation. The long-term may not be instantly evident. But time has a way of revealing to us both the prescience and foolishness of our actions. Of that, at least, let us take note.

So while portfolio managers and traders cling to every Greenspan utterance, to be sure, the poets and philosophers are among colleagues who head operations and IT, helping create the infrastructure that supports the business. They understand what it takes to sustain the securities and investment industry's might, however prosaic and uncelebrated the endeavor may sound.

Theirs are the critical issues that must be raised at the board level at financial firms: concerns such as enterprise-wide data strategies; systems convergence; interoperability to support multi-asset strategies and multi-geography operating models; and standardized, worldwide post-trade processing, to name some. How such challenges are heeded today will determine how the industry's money-making capabilities will fare in the future, and in time, show how important it is that they become top priorities for all C-level executives.

Sincerely,



Pavan Sahgal
Editor in Chief

HEDGE FUNDS

Hedge Funds Growth Is Changing Bond Market Dynamics

NEW YORK — Along with an increase in US fixed-income trading, particularly by hedge funds, electronic trading is changing the dynamics of bond markets, according to research by **Greenwich Associates**. US fixed-income trading volume increased 10 percent to \$25 trillion for the year ending April 2007, with US hedge funds' fixed-income trading volume surging 90 percent from 2006 to 2007, according to the consultancy.

The percentage of US institutions trading fixed-income electronically has stayed steady between 2006 and 2007 at about 55 percent, but e-trading volume is increasing steadily for some products, according to Greenwich. In foreign exchange, the growth of electronic trading could encourage some dealers to alter strategies in ways that would increase FX e-trading. In both fixed-income and foreign exchange, the shift to e-trading has compressed spreads, according to Greenwich. Some FX dealers are investing in 'no-touch' electronic trading systems and pursue a market share strategy to profit from large volumes.

"Several fixed-income dealers abandoned market share strategies when spreads began to tighten," says Dev Clifford, Consultant, Greenwich Associates. "While many of the major fixed-income dealers are expanding their e-trading businesses, we have yet to see any new strategy on executing massive volumes of low-margin electronic trades. The FX example suggests that might be coming."

Hedge funds have grown from just being an important part of the market for some fixed-income products, to becoming substantially the major market. Hedge funds are now responsible for more than 55 percent of US trading volume in liquid or "flow" derivatives with investment-grade ratings, and more than 80 percent of high-yield derivatives; more than 85 percent of US trading volume in distressed debt; about 55 percent of US trading volume in emerging market bonds; and more than 40 percent of US leveraged loan trading volume.

In US government bonds, hedge funds are now the second-largest source of trading volume, behind investment funds and advisors, generating about 30 percent of market volume, according to Greenwich. Hedge funds have also become the largest source of trading volume in interest-rate derivatives, also accounting for 30 percent of market volume. Hedge funds generate 25 percent of US asset-backed securities trading volume and 20 percent of US mortgage-backed securities trading volume. "However, it is at the other end of the liquidity spectrum that hedge funds have become the biggest force," says Frank Feenstra, Consultant, Greenwich Associates. "In structured credit, hedge funds generated nearly half the trading volume reported in the US over the past 12 months. With the current issues surrounding sub-prime mortgage debt and collateralized debt obligations, investors should take careful note of this finding."

Hedge funds are most active in products with the highest profit margins for sell-side firms, according to Greenwich. As a result, long-only investment managers are at a disadvantage to hedge funds over service and liquidity they obtain from fixed-income dealers. For institutions to avoid being written off by dealers, they must recognize opportunities to make their business more valuable. One selling point is that funds and advisors are more likely to monitor best execution of fixed-income trades — two-thirds of funds and advisors monitor it while less than 40 percent of hedge funds do, according to Greenwich. □

"In structured credit, hedge funds generated nearly half the trading volume reported in the US over the past 12 months."

Hedge funds are most active in products with the highest profit margins for sell-side firms, putting long-only managers at a disadvantage for service and liquidity.

SPOTLIGHT

Under New Leadership, SWIFT Reorganizes to Improve Customer Focus and Deepen Its Transaction Services

At Sibos 2007 in Boston, SWIFT seeks to build momentum for improving the straight-through processing efficiency of business-critical communications as well as deepening its global reach. A key enabler for the banking and securities messaging cooperative in achieving this goal rests on becoming more outwardly focused. To deliver an electronic environment that offers industry-wide interoperability, SWIFT is adopting what it calls a customer-centric approach and has undergone an internal re-organization, effective September 3, into three units focused on EMEA, Americas, and Asia-Pacific. Other challenges facing SWIFT include simplifying operations, improving cost-effectiveness and increasing speed of processing. In response, SWIFT is reviewing the design and deployment of its systems, and looking at how to increase its capacity. SWIFT is also leveraging its capabilities in different geographic zones to better process messages. *Global Investment Technology* spoke with Lázaro Campos, who was named Chief Executive Officer of SWIFT in April.

Our main role in the industry in straight-through processing is and always has been interoperability. We want to be the financial middleware.

For small customers, we need to work on the cost of infrastructure. We need simplicity. About 1,800 of our customers send less than 150 messages a day.

GIT: At Sibos three years ago, SWIFT management proposed transforming the organization from a messaging utility to a transaction management utility by 2010. Has this goal changed?

LC: When we talked about transaction processing then, we got caught in the semantics of it, because transaction processing means different things to different people. When we talk about SWIFT's role in the community, it's fair to say we're really talking about messaging. Some people think that sending a file is messaging. In our business, messaging is much more than that. We validate, we archive, and we do a fair amount of processing of the transactions we receive.

Where does messaging start and transaction processing finish? The boundary isn't clear. Our main role in the industry in straight-through processing is and always has been interoperability. We want to be the financial middleware. We ensure standards for the transactions and implement and enforce them, so that trading parties can execute what they receive. A Citi banker said a few years ago, 'If [messages] come through SWIFT, I don't question, I execute.' That is the best value statement I've ever heard from a customer. That's what we do.

GIT: What are SWIFT's opportunities in the context of achieving customer centricity, simplicity and cost-effectiveness?

LC: There are two parts to using SWIFT: the cost of messages and the cost of maintaining and running SWIFT infrastructure within your organization. The smaller the customer, the more important is the cost of the infrastructure; the bigger the customer, the more important the messaging cost, because the percentage of the cost that is messaging-related is greater than for the smaller customer.

For small customers, we need to work mainly on the cost of infrastructure. We need simplicity. About 1,800 of our customers send less than 150 messages a day. You possibly do more e-mail than they do messages. So why should they have anything more complex than Microsoft's Outlook to send out 150 messages a day? That speaks to simplicity and to low total cost. In some cases, in the fund management community, firms don't even have an IT department to speak of. They really don't need the burden of a complex SWIFT connection. But they need and are willing to get into the value of SWIFT to connect to all

their counterparts. But there is a limit to how much they will invest in that connection. So simplicity is the answer for those small customers.

Larger customers are concerned that the more they send, the more they pay. Reality is slightly different. The top 25 institutions, in the last three years, have grown with us about 25 percent on average. That's a significant increase in volume. Their costs on average have reduced five to eight percent. We are working on other propositions for large members, such as a guaranteed fee covering a certain period of time, and the possibility to grow beyond what they do with us today. Providing answers here will help us increase messaging market share which is the ultimate objective stated in our SWIFT 2010 strategy.

GIT: SWIFT's focus on bringing securities and investment professionals into the fold has paid off, with securities messaging now comprising more than half of all the traffic on SWIFT. How might this drive your future plans and how much growth do you envision in the securities sector?

LC: Securities messaging is now part and parcel of our mainstream business. It's not only a very important part of our business, but the one that is growing more rapidly. If our objectives for simplicity and cost-effectiveness are successful, we will see a significant number of niche players joining SWIFT. So I can see growth in the securities business both in transactions and market share, and also the types of players we are able to attract.

GIT: How has the fight against terrorism impacted data privacy issues at SWIFT, and how do responses differ in North America, Europe and Asia?

LC: The level of interest and anxiety in those three regions is slightly different. Clearly, the world is a different place than it was before, not only for SWIFT but everybody, especially organizations that are present in multiple countries with a global footprint like SWIFT. They are exposed to data privacy laws and national security requirements in all the jurisdictions where they operate. One of SWIFT's hallmarks for many years has been the resilience of our systems, which was achieved by having operating centers on both sides of the Atlantic. That was a significant point of differentiation for SWIFT prior to 9/11. After that, it became an issue because of data privacy concerns.

There is a gap between valid national security concerns of all the countries, and data privacy legislation, especially in Europe and the US. We are caught in between. Since The New York Times made public our involvement with the terrorism financing [surveillance] program in the US, a lot has happened. Now, more than a year later, we've been very active in working on increasing the transparency of what we do and increasing the contract transparency between us, our banks and their customers. We have received from the EU and US administrations legal certainty for SWIFT and the member banks. And now we're working on [systems] re-architecture. We believe we have answered the concerns that people may have.

GIT: How has SWIFT's activity evolved in the standards arena, particularly with the proliferation of cross-asset strategies and the increasing use of CDSs and other OTC derivatives?

LC: One of the key values and the beauty of SWIFT is that once you're connected, you can use the connectivity for all products and messages. We have



Campos: Making SWIFT customer centric.

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SPOTLIGHT

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Eighteen out of the top 25 investment banks have told us that SWIFT should develop ISO standard messages for regulatory reporting.

messages for equities, fixed-income, funds and FX, and are also developing FPML-based messages for OTC derivatives, funds and funds of funds, or hedge funds. We now have a very comprehensive portfolio that covers most of the asset classes. We don't stop there. We will follow our customers' needs through national communities, working groups or individual institutions, and develop solutions for additional asset classes where there is a real need or benefit to be derived. Good examples of that are the work we have done in support of specific communities like FIX or FPML. That helps us deliver seamless standardization in support of all transaction types, end to end.

GIT: How does SWIFT view the hedge fund sector? What are the challenges and opportunities in serving the needs of that constituency?

LC: There's clearly growing convergence between the traditional fund strategies and the hedge fund strategies in the market. There's still a long way to go in the traditional fund industry to automate, specifically fund subscriptions and redemptions. In the hedge fund arena, the road is a bit marginal. There has been high volatility and uncertainty in that arena. It is of paramount importance that investors and hedge funds alike know at all times what their positions are. This is another reason for increased efficiency and speed, and also automation and standardization.

GIT: SWIFT caught many by surprise when it announced that financial market regulators are the newest category of SWIFT participants. How do you see them using SWIFT and what are the drivers behind the creation of this category?

LC: Admitting those financial market regulators to SWIFT is a natural step to get all the players connected to SWIFT. It will make it easier for SWIFT members and users to meet regulatory transaction reporting obligations while facilitating the development of global regulatory reporting solutions. In many cases, regulatory requirements and standards are different among jurisdictions. We expect to standardize that area to minimize regulatory reporting costs. With the Markets in Financial Instruments Directive (MiFID) taking effect November 1, there will be more data, more venues and more asset classes on the regulatory reporting agenda. Firms with a central operation serving multiple markets may need to report to multiple regulators. Discussions with our member banks led us to present our board with the idea of admitting financial market regulators to SWIFT. Eighteen out of the top 25 investment banks have told us that SWIFT should develop ISO standard messages for regulatory reporting. They also told us that SWIFT should support regulatory reporting messages over the SWIFT network. Clearly, we are responding to a market need.

GIT: Is there a catchphrase that would define the future of SWIFT as you take its helm? How do you see SWIFT evolving under your leadership? What's your strategic vision beyond 2010?

LC: Customer-centricity drives everything I do, from product portfolio evolution to pricing policies to reorganization of the company. There is so much for us to gain from turning around the company to a more customer-centric approach. It's not that SWIFT is broken. It's far from that. It's not the 95 percent that makes the difference. Many people get to 95 percent. It's the last 5 percent that really differentiates you. That's where I am. If we can get that 5 percent sorted out, and get the 2,000 professionals of SWIFT walking in the same direction, seemingly insurmountable opportunities are no longer insurmountable. They will be the way the future is built. □

SECURITIES MESSAGING STANDARDS

SWIFT to Leverage ISO 20022 to Expand Its Reach

NEW YORK — At Sibos 2007, expect SWIFT to make a push to bring more corporate bond processing messages onto its network and a growing emphasis on the ISO 20022 message standard for segments of the financial industry it has not yet reached. There are nearly 100 approved messages and 150 candidate messages in the process of being approved on ISO 20022, according to Malene McMahon, Senior Product Manager, Standards Department, North American Market, SWIFT. “Nearly half of the ISO 20022 messages are actually implemented in a live SWIFT solution that includes SWIFTNet Funds, SWIFTNet Exceptions and Investigations, SWIFTNet Cash Reporting and the Payments Clearing and Settlement messages for SEPA,” says McMahon.

SWIFT currently has ISO 15022 messages covering bond processing, and some ISO 20022 messages do cover certain aspects of bond processing, according to McMahon. SWIFT plans more ISO 20022 messages and XML messages covering bonds and other securities, in the next six to 12 months. “There are certainly sectors of the market that are not yet covered, but there are plans and business justifications in several new areas, including invoice financing,” says McMahon. “We are confident that ISO 20022 will eventually cover every aspect of the financial supply chain of events in the financial market.”

Meanwhile, ISITC [the International Securities Association for Institutional Trade Communication] has proposed a new portfolio valuation message standard to the ISO registration management group, and is working with SWIFT in its role as registration authority for ISO 20022 to model that portfolio valuation message standard, according to Steve Goswell, Chair of ISITC and Principal at Barclays Global Investors.

ISITC working groups are in the middle of an 18-month development period focusing on a release of updated standards in 2008 or possibly in early 2009. ISITC is also working on a cash statement message which is an existing message in ISO 20022, as well as an XML update of an old SWIFT equivalent message used by the securities industry, which lacks the flexibility of newer types of messages, explains Goswell. “We are joint owner of the new cash statement message, which gives us the ability to do ongoing maintenance to that message on behalf of the securities industry,” he says. Similarly, ISITC is working on an XML equivalent of FIN messages originally developed by the banking side of the business, which are also inflexible, observes Goswell.

ISO 20022 messages are available for market sectors including payment initiation, payment clearing and settlement, securities trading, securities clearing and settlement, cash management, trade service utility management, foreign exchange and account management, according to SWIFT’s McMahon.

“SWIFT is now developing 20022 messages for some of the same kinds of messages offered under the ISO 15022 standard, so there are a lot of co-existence issues,” says Lyn Marcrum, Managing Director and co-founder of Camino Consulting LLC. In research conducted for SWIFT in 2005, Camino found that payments processors were more receptive to 20022 than the securities industry, but once SWIFT picked up on the new standard, certain segments of the funds business began to find it useful, explains Marcrum. □

SWIFT plans more ISO 20022 messages and XML messages covering bonds and other securities, in the next six to 12 months.

ISITC has proposed a new portfolio valuation message standard to the ISO registration management group, and is working with SWIFT to model it into ISO 20022.

SECURITIES OPERATIONS

Canyons of Inconsistent, Standalone Data Posing A Major STP Challenge for Derivatives Wild West

NEW YORK — Straight-through processing (STP) of fixed-income and derivatives trades, particularly credit default swaps, has progressed greatly in the past two or three years, but has further to go to keep up with continued increases in volumes of trades, according to industry observers and service providers.

“Historically, this hasn’t been an issue of technology or a lack of technology,” says Timothy Lind, Managing Director of Strategic Planning at **Omgeo**, the trade-matching utility. “Traditionally, we have a lack of will or focus on the back office for these type of instruments. We used to have to make the same arguments about the importance of STP in the back office for equities, like how STP mitigates exposure. We’re just following the same pattern with derivatives. Trading strategies must highlight the efficiency of the back office to be effective.”

Achieving STP for derivatives and fixed-income isn’t as simple as just applying the same technology used for equities.

Achieving STP for derivatives and fixed-income isn’t as simple as simply applying the same technology used for equities, however, according to Adam Honore, Senior Analyst at **Aite Group**. “Unfortunately, a lot of these initiatives are just-in-time efforts,” he says. “Firms aren’t playing ahead of the technology curve on this. Instead of creating big, agile infrastructures with an enterprise perspective, they are moving systems into place to solve their immediate problems. Some make the time and effort to make sure they’re not creating the same problems for the next type of instruments by solving them for the current instrument type. Some do it right and some do a patchwork.”

“Firms aren’t playing ahead of the technology curve. Instead of creating big, agile infrastructures with an enterprise perspective, they [merely] solve their immediate problems.”

The obstacles or bottlenecks in fixed-income notably include control of pricing, according to Honore. “Matching rules are an issue,” he says. “In fixed-income, one party may call something an interest-rate swap while another might call it a coupon. That’s incidental but not when trying to code based on that. Everyone has to speak the same language. That’s a challenge.”

Increased volumes of trades became notable through the middle of 2007 with market volatility in the wake of the subprime lending fiasco. Automation initiatives that had been completed for fixed-income securities kept the volatility and market operations from becoming worse, according to Janet L. Wynn, Managing Director, Deriv/SERV Services at the **Depository Trust & Clearing Corporation (DTCC)**. Deriv/SERV is the DTCC’s matching and confirmation service for derivatives, including interest-rate swaps and swaptions, equity swaps and variance swaps.

“Without the automation that has been achieved, we would have been in a complete paralysis,” says Wynn. “Volumes surged by an almost 100 percent increase from January to August. It was very heavy volumes that couldn’t even have been visualized a couple years ago. The surge in volume is getting firms to focus collectively on where they might change business practices.”

To improve fixed-income STP, major market participants have to tighten business process conventions across their firms, according to Wynn. “Firms are looking at how to set a convention such as a standard time to quote,” she says. “Cross-firm business processes must be agreed upon to advance STP.”

To improve fixed-income STP, major market participants have to tighten business process conventions across their firms.

“Data is clearly the main obstacle, not only market data, but also reference data. Inadequate, inconsistent securities data has always been an issue. It blows up STP.”

The greater amounts of volume cover a small percentage of the orders, according to Anthony J. Saliba, Director at **BNY ConvergeEx Group** and President of **Liquidpoint LLC**, an options trading solution under the group. “On any given day, 40 percent of the volume is done on 5 percent of the orders, because they’re huge orders,” he says. “The balance, 60 percent of the volume, is a range of retail to smaller institutional players.”

Portfolio margining, pre-trade analytics and automation of post-trade allocations are all necessary functions for meeting risk and margin requirements in options trading, observes Saliba. “Post-trade allocation is only automated now at the ISE [**International Securities Exchange**], and the CBOE [**Chicago Board Options Exchange**] is very close to automating it,” he says. “Post-trade allocation is huge for the buy side because larger clients can split the orders up and send to two or three different prime brokers.”

The problems in achieving STP and in credit are very similar, according to Neil Edelstein, Senior Director of Product Solutions, **GoldenSource Corporation**, an enterprise data management solutions provider. “Understanding security and risk is not just in a portfolio sense but in an individual security component sense,” he says. “The increase in fixed-income securities has doubled trading in the past year. Instruments that were built for hedge funds are really being peddled to institutional investors. The level of understanding of these securities is really diminished as it pushes out from the original sponsors of these agreements. The more data you have to compare, the better off you will be. The problem with STP all along is because operations are not specified as much as they should be, there’s a bottleneck.”

Using quantitative risk management to get through bottlenecks has become more widespread, according to Edelstein. “To accurately feed and read results from a risk system, the data must be right and complete,” he says. “Without that, the bottleneck appears and risk returns do not look right, so bad decisions are made. Front offices then do not trust the data, so there are delays.”

Bottlenecks in fixed-income STP can reside in data, according to Robert Iati, Managing Director at consultancy **The Tabb Group**. “Data is clearly the main obstacle, not only market data, but also reference data,” he says. “Inadequate, inconsistent securities data has always been an issue. It continues to be the source of the majority of what blows up STP. The data for any product that is not exchange-traded is more difficult to come by and there are more of those in fixed-income and derivatives than anywhere else.”

Progress on STP will come slowly, according to Iati. “It’s always behind any trading initiative or revenue-generating initiative,” he says. “We will see a little more attention paid to STP and similar efficiency initiatives, because we’re more likely moving into a cycle that’s a little lower growth than it has been.”

Data must match between counterparties to make STP possible, explains Jack Mahoney, Director of Research and Marketing at **Thomson TradeWeb LLC**. “The launch of Deriv/SERV created a central communications hub for the credit default swaps market,” he says. “When payments happen on a golden copy, which is a ticket that is matched and confirmed, the downstream tasks should clean themselves up. The record has to be adjusted in the warehouse

SECURITIES OPERATIONS

“It will be interesting to see how it plays out if SWIFT moves into confirmation matching, and competes against DTCC.”

“We should be careful of rolling out the ‘Mission Accomplished’ banner prematurely. Segments such as wealth management, prime brokerage and hedge funds are not well served.”

and appropriate parties have to be beholden to each other for those payments. Of swaps and derivatives transactions put on the book, 40 percent are modified or revised in some way post-transaction, through an assignment, an unwind, credit event or various things.

TradeWeb sees other providers coming in with pre-confirmation and post-trade services. “Starting from the trade, the big thing is when two counterparties agree they will do a swap transaction or derivatives contract, right then and there if you say you’re done over the phone, typically two other individuals or a system must make sure the details of that trade are correct. That’s block affirmation or block checkout. In derivatives, that’s still very manually intensive. After that, they typically book it into their system. They write the ticket and capture the information.”

CheckFree Investment Services, a unit of CheckFree Corporation that provides portfolio management solutions for institutions, has added capabilities to its TradeFlow securities transaction processing solution to handle connectivity and post-trade processing over DTCC’s Deriv/SERV. “The next evolution of the product will look at determinations and the novations part of the trade lifecycle,” says Geoff Harries, Director of Securities Product Management at CheckFree. “Once you’ve removed the confirmations backlog, then you start to move to post-trade downstream processes in terminations and novations. Then we’ll look for our user groups to help set our direction in whether we should focus on more diverse asset classes and look on the equity side of the world via the rate side, or add more strength to our credit processing.”

Even with Deriv/SERV and **SwapsWire**, a STP network in operation, major asset management firms will take one or two years to address automation of fixed-income and derivatives trades, according to Harries. Deriv/SERV and SwapsWire, joined recently by SWIFT with its SWIFTNet FpML pilot for processing derivatives trades, will compete with each other in the next couple years, he observes. “When SWIFTNet FpML becomes generally available, investment managers will be able to use it to send notification of OTC contracts to custodians, automating that part of the lifecycle,” he says. “It will be interesting to see how it plays out if SWIFT moves into confirmation matching, and competes against DTCC.”

The industry must continue to be able to cope with volume surges in processing fixed-income and derivatives trades. Volume is the key operational challenge, stresses Wynn of DTCC. “Despite the huge surge in volume this summer, major firms still completed back-loading of outstanding portfolios, testing payment calculations on quarterly rolls and testing the administration of credit events,” she says. “The ability of the firms to cope has been quite admirable.”

Still, Omgeo’s Lind cautions, “We should be careful of rolling out the ‘Mission Accomplished’ banner prematurely. In fixed-income, it would be premature. Other segments such as wealth management, prime brokerage and hedge funds, and a lot of geographies, are not well served.” As portfolio managers continually increase the sophistication of their investment strategies, derivatives processing problems that are solved will give way to newer ones created by traders’ creativity, points out Lind. “Automation of new products will be an ongoing investment for this industry for some time to come,” he predicts. □

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DATA MANAGEMENT

Decimalization, active algorithms and electronic trading are key driving forces generating large data volumes that must be processed faster.

“The increase in pricing volume provides indicative pricing for all sorts of asset types that custodians now have to handle.”

Rising Data Tsunami Tests Latency, Legacy Systems

NEW YORK — As recent market volatility has spurred greater volumes of trading in fixed-income and derivatives (*see page 10*), it has also contributed to an increase in the volume of market data. That in turn is spurring a greater use of data aggregators and complex event processing services, report investment firms and services providers. “End users of data will have to rely more on companies that are aggregators, such as Thomson, Reuters, Bloomberg and Standard & Poor’s,” says David Easthope, Analyst in the Securities and Investments Practice at consultancy Celent. “These aggregators will play a very important role in market information. Market data consumers already have relationships with these providers and will look to them to tackle this issue.”

Another advantage of using an aggregator is that it takes weeks rather than months to build necessary data connections, explains Easthope. The cost is lower as well, he adds. “It’s cheaper than taking data, having feeds, dealing with formats and hiring staff to do that,” says Easthope. “It’s the natural economies of the industry, so to some extent there’s a benefit to that and there is also the long-standing relationship. Aggregators want to maintain the relationship with their distribution partners and keep the end users happy.”

Aside from speed, market data users also need larger channels to accommodate the increased volume, explains Robert Iati, Partner and Managing Director at consultancy The Tabb Group. “You know you need to move faster; you’re down to microsecond latency and at the same time, have three times the trades and messages you had a couple years ago,” he says. “Starting with decimalization as one of the initial drivers of

more trade volume, then market dynamics creating more interest and ubiquity of information, there’s now a series of active algorithms and all the electronic trading. That all built up to a lot more data than there was before, and we have to process it all faster.”

The Deutsche Börse, for example, acts as an aggregator of data, because it collects data from its own systems and also from corporation partners, observes Georg Gross, Head of Front Office Market Data & Analytics at Deutsche Börse. Aggregators typically endeavor to pull out and present the most relevant data for their users or customers, he adds. “Some aggregators provide their customers with all the information, while others only provide a subset of information because they feel it would be an overload of data if they provided each tick, so they give netted, conflated information,” says Gross. “Other aggregators provide all detail and every tick. There are different flavors of aggregators and the customer can choose what they want and need.”

The increase in types of data coming with the increase in types of securities encourages use of quantitative strategies, observes Marc Alvarez, Vice President of Product Marketing at Asset Control. “The increase in pricing volume provides indicative pricing for all sorts of asset types that custodians now have to handle,” he says. “Administering those holdings can be quite complex, especially in swaps, payments and transfers. The question isn’t the traditional one of bandwidth as much as it is a question of performance in decision support.”

The Deutsche Börse offers different types of services. One is a full service providing all the data from a given trading system, in “un-netted, unpol-

MiFID could further increase market data volumes because more trades might be needed to provide best execution.

“Users are struggling for adequate capacity to process all the incoming data in real time. That’s combined with pressure to reduce latency.”

ished” format, notes Gross. “Every single data item is provided once it occurs, which is a huge amount of information,” he says. Deutsche Börse also offers several other types of data feeds under its CEF umbrella, including CEF, CEF Alpha, CEF DataSelect and CEF Ultra.

CEF can provide a snapshot every 250 milliseconds, which is usually sufficient for traditional traders, according to Gross. “If you’re employing automated or algorithmic trading systems, you might want every individual data item,” he says. CEF Alpha provides data just for certain selected instruments. “You don’t have to filter anything or build a network and processing capacity for data you don’t need.”

CEF Alpha can feed data directly into automated trading applications. CEF Data Select allows users to redistribute data internally and externally. CEF Ultra, the newest CEF offering, specializes in pre-trade and trade data from the Eurex derivatives exchange and clearing house, which is a joint venture of Deutsche Börse and the SWX Swiss Exchange.

The European Union’s Markets in Financial Instruments Directive (MiFID), taking effect in November, could further increase market data volumes because more trades could be needed to provide best execution of orders. “There will be more data interfaces and more data to be processed, requiring upgrades of market data infrastructures,” observes Gross. “Most of the services we see focus on post-trade transparency, with some new data sources for pre-trade transparency. Of our data volumes, about 90 percent is pre-trade information, so post-trade is a smaller amount of data. The amount of market data might not increase as massively as people feared, but there will be more complexity.”

Under MiFID, as well as its US counterpart, Reg NMS, firms have to battle not just in real-time event processing offerings, but also in the speed of their databases at handling billions of ticks, observes John Coulter, Vice President of Marketing at VhaYu, a data processing software provider. Data users are likely to take another year to look at how much hardware they need to accommodate burgeoning volume and how to scale technology to handle it, he adds.

Several companies, among them **Aleri Inc.**, **Progress Software Corporation** and **StreamBase Systems Inc.**, are specializing in complex event processing (CEP), also known as event stream processing. “CEP is about analyzing fast-moving data and streaming data in real time, so you can act on data as it arrives and changes,” says Jeff Wootton, Vice President, Product Strategy, Aleri. “CEP is ideally suited for trading applications dealing with market data. With market data rates going through the roof, users are struggling for adequate capacity to process all the incoming data in real time. That’s combined with pressure to reduce latency.” CEP addresses scalability and is useful throughout the trade lifecycle, and for position tracking and risk aggregation, adds Wootton.

While CEP and aggregation have emerged as two strategies for dealing with increased volumes of data, the bar for data processing is continually being raised, observes Gross of Deutsche Börse. “Reality is becoming more complex and data volumes are ever-increasing,” he says. “We will always develop new strategies, but it will remain a challenge because data volumes are not stable. While we develop solutions, new challenges appear. We’re making a lot of progress, but unfortunately the target will always rise higher.” □

NEW PRODUCT ROUNDUP

IT Solutions Help Market's Advance Into Derivatives

BOSTON — At Sibos 2007, IT vendors are rushing with beefed up offerings as the market's quest for trading and processing efficiency accelerates. Here are solutions of value to investment managers, broker-dealers, or custodial banks.

Broadridge

Broadridge's SWIFT Service Bureau, including its SWIFT Transaction Manager (STM), has been upgraded to cover SWIFT standards, requirements and market needs for corporate clients. Broadridge has invested in its services to enable corporate usage either directly or via a firm's banking partner. The STM, already proven in the European markets, has been added for Broadridge's US SWIFT Bureau. STM is an advanced browser-based workflow feature enabling users to monitor the full lifecycle of their messages.

CheckFree

At Sibos 2007, CheckFree Corporation launches CheckFree TradeFlow version 2.2, the latest version of its post-trade securities transaction process management solution. This release enables a workflow solution focused on OTC derivatives, specifically for connectivity and post-trade processing over DTCC Deriv/SERV. CheckFree will also showcase a new release of its market leading corporate actions solution, CheckFree eVent version 2.3.1. The new release will feature improved functionality and comprehensive workflows that drive down operational risks and increase efficiency in end-to-end processing of corporate actions.

Confluence

Automated data management solutions provider Confluence has launched Unity, an integrated platform that automates and integrates critical fund administration processes, including the collection, creation, confirmation, and delivery of investment product data. Unity supports a range of managed investment products worldwide, such as mutual funds, funds of funds, collective funds, variable products, separate accounts, hedge funds, and other alternative investments. Unity products are available as stand-alone solutions or in packages for financial reporting and expense management purposes. Unity is built on a single unified database so data accuracy can be verified just once, and data can then be stored and re-used for multiple purposes.

Fundtech

Fundtech is adding capability to its PAYplus for CLS product to process Depository Trust & Clearing Corporation (DTCC) Deriv/SERV Trade Information Warehouse (TIW) settlement transactions through CLS Bank. The product will accept transactions and route them to appropriate entities from the CLS Group shareholder's organization tree. Fundtech's modification will allow members without sufficient liquidity or operational capability to access CLS Bank. The enhancement is a first step in modifying the product to meet CLS Bank's reach into derivatives and other asset classes.

GoldenSource

GoldenSource Corporation, a provider of enterprise data management (EDM) software solutions for the securities and financial industry, will demonstrate enhanced features of its GoldenSource EDM Suite at Sibos. Containing multi-

CheckFree TradeFlow version 2.2 enables a workflow solution focused on OTC derivatives.

Confluence has launched Unity, an integrated platform that automates and integrates critical fund administration processes.

ple components and customization tools to adapt to individual business needs, the solution can drill down on positions, linking a single instrument or counterparty ID to complex underlying security and counterparty structures and hierarchies, and offers the ability to clearly identify and manage data relating to product, entity and business activity in discrete but integrated components.

Hewlett-Packard

HP Financial Services Industries plans to announce at Sibos 2007 a new business intelligence solution that will provide customers a way to mitigate risk by better understanding their data (latency, quality, accuracy, context, format, use), and will guarantee timely and accurate compliance reporting. The solution is based on the HP Neoview platform, enabling better business outcomes via risk measurement across line of business and risk type, improved control, streamlined costs and processes associated with compliance reporting, analytics, and data challenges. HP will also unveil new services and updates to the HP FSI Strategy and Payments Solution Portfolio, including HP Open Payments Business Service Management and HP Open Payments for Target Marketing.

Orc Software

Advanced trading, brokerage and connectivity provider Orc Software has launched Orc Liquidator Hosted, an exchange co-located, fully hosted solution to deploy custom algorithmic derivatives trading strategies with ultra-low latency. The new solution allows firms to create advanced futures and options trading strategies to deploy into the market. Orc Liquidator is a black box trading platform used by proprietary trading desks at investment banks, trading firms and hedge funds. Orc Liquidator Hosted is connected to the CME, the CBOT, the LIFFE, Eurex and the ICE, with more than 100 additional markets that can be deployed as required.

Standard & Poor's

Standard & Poor's CUSIP Service Bureau (CSB), a provider of unique issuer and instrument identifiers, has introduced CUSIP Request, a new Web-based system for processing requests for securities identifiers. The new system, using an online form and attachments, reduces the time it takes to submit an application for CUSIP identifiers while providing a way to attach required documents to the online application.

SunGard

Financial services software and processing solutions provider SunGard is expanding its SunGard Transaction Network (STN) for SWIFT solution to accommodate increased demand from US asset and investment managers for indirect SWIFT connectivity through means such as the SWIFTNet Service Bureau. SunGard's STeP unit is launching its MINT RMA (Relationship Management Application) module, an application that allows the central management of relationships between SWIFTNet FIN correspondents through the exchange of RMA authorizations. SunGard has also launched its Liquidity Manager Solution, an integrated, multi-entity liquidity management solution for financial institutions and corporations. The solution automates the sweeping of cash and collateral in real-time and provides a liquidity dashboard to monitor risk and improve control. □

[To be Continued]

HP Financial Services' new business intelligence solution will give customers a way to mitigate risk by better understanding their data.

Orc Liquidator Hosted, an exchange co-located solution, deploys custom algorithmic derivatives trading strategies with ultra-low latency.

CLEARANCE & SETTLEMENT

The merger of SWX Group, SIS Group and Telekurs Group will combine securities trading, clearing and market data services.

SIS x-clear and Eurex Clearing will work on solutions for mutual clearing access. A clearing offering for the London Stock Exchange is in the works.

Swiss Group Shows Strength in Strategic Initiatives

NEW YORK — SIS x-clear AG, the central counterparty (CCP) operated by SIS Swiss Financial Services Group AG, is making its presence felt throughout Europe, with the September 7 launch of its clearing service for the SWX Swiss Exchange, followed by a clearing cooperation agreement with Eurex Clearing announced September 18. In addition, on September 9, owners of SWX Group, SIS Group and Telekurs Group approved a merger to be implemented at the start of 2008, combining securities trading, clearing, and market data businesses. “The market has new CCPs coming in, but the clients make the choice at some point and will make use of the increasing competition, and therefore there will be natural consolidation between the most efficient CCPs,” says Marco Steiner, Chief Executive Officer, SIS x-clear. “I’m not a strong believer in monopolistic situations. I believe in fair competition — but that doesn’t involve 10 or 20 CCPs, it’s more like three or four.”

SIS x-clear is also about to launch a clearing offering for the London Stock Exchange (LSE) after signing a letter of intent in May 2006 to interoperate with LCH.Clearnet, which had been the only clearing agency for the LSE. SIS x-clear already serves as CCP for virt-x Exchange Ltd., the Swiss market index securities exchange operated by the SWX Group.

The agreement with the LSE is made possible by the European Code of Conduct for Clearing and Settlement (*Global Investment Technology*, December 11, 2006 and July 23, 2007). It is scheduled to be fully implemented on January 1, 2008. The Code includes Access and Interoperability Guidelines. As SIS x-clear and Eurex Clearing develop their cooperation, they will work on solutions for mutual clearing access. The clearing service SIS x-clear is providing for the SWX is an extension of what it provides for virt-x. “We introduced this service now, because clients want a CCP in that market for obvious reasons, one of which is mitigating risk,” says Steiner. “Another purpose is trade netting. The third is to streamline and harmonize the processes within the banks.”

In the first week of operation, the service for the SWX increased the number of settlements completed on the intended settlement date by about 5 percent to 99.5 percent, according to Steiner. “In essence, we gave the market efficiency, immediately,” he says. Competing CCPs will be able to also offer clearing services for the SWX, as LCH is for the LSE. □

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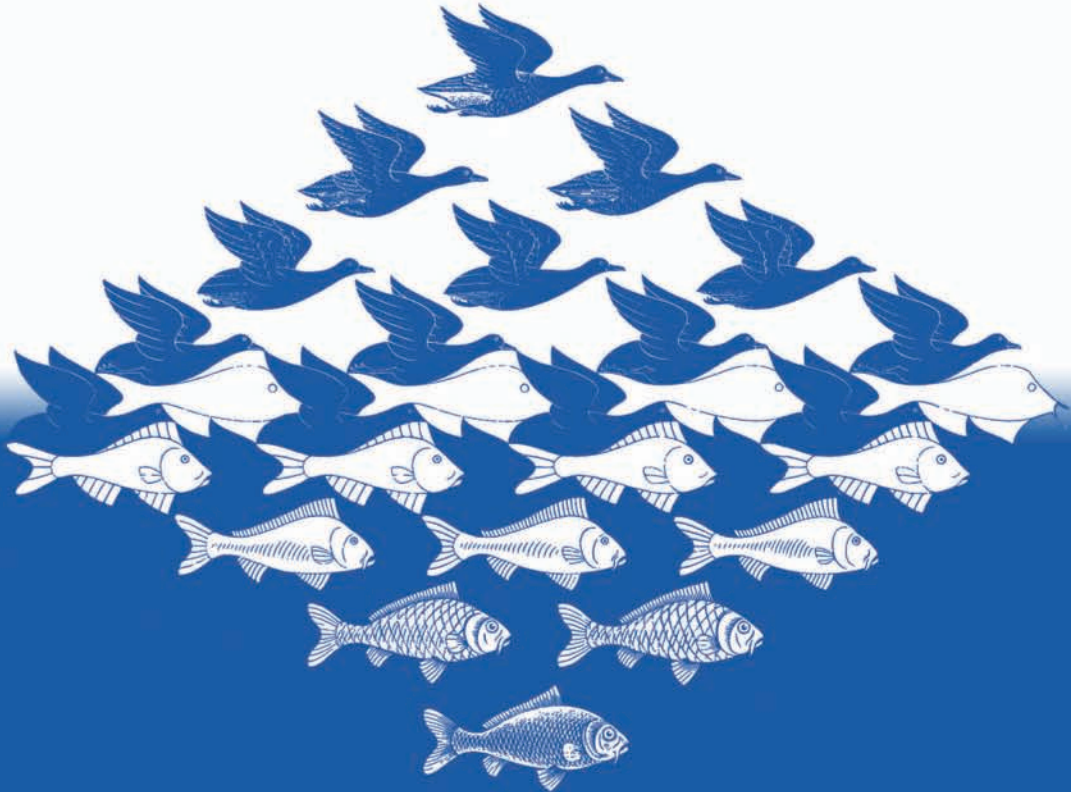
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- An Update from the Treasury Market Practices Group (TMPG)
- Operations Management for Dynamic Markets
- Prime Brokerage: Operations Revolution
- DTCC's NIIDs Project: Innovating for Information
- A Buy-and Sell-Side Discussion on Corporate Actions
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