

**Financial Information Forum  
FIF Chicago Market Data Meeting**

Thursday, October 27, 2004, 11:00 AM Chicago Time.  
CME 20 South Wacker Drive, Chicago , IL 60606

**Registered & Announced Attendees:**

(Note: If you attended this meeting and are not listed, please contact [fifinfo@fif.com](mailto:fifinfo@fif.com) )

**Market Data Meeting - October 27, 2004**

<b>Name</b>	<b>Firm</b>
Brian McNelis(Chair)	Reuters
Tom Jordan	Financial Information Forum
Leo McBlain	Financial Information Forum
Rob Schroeder	Financial Information Forum
Kevin Brady	CME
Glen Madeja	CME
Miclele Inavski	CME
Mark Ainis	CME
Charlie Troxel	CME
Lisa Amato	CME
Ari Studnitzer	CME
Bart Hrvatin	CME
Ron Newell	CME
Marilee Radecki	CME
Steve Goldman	CME
Ruben Rodriguez	UBS
Tyndall Nguyen	UBS
Todd Hall	UBS
Harry Patel	UBS
Brain McNellis	Reuters
Jeff Wells	Reuters
Jocelyn Killean	Thomson
Danielle Butler	Thomson
Tom Knorring	CBOE
Jerry Hamm	CBOE
Steve Chodash	CBOE
Jill Scarnavack	Sungard Futures
Jenny Drake	ARCA
Bridget Farell	ARCA
Morgan Martin	ARCA
Matt MacDonald	DTN
Steve Smith	DTN
Nancy O'Hara	Hyperfeed
Len Musso	Lehman
Kurt Klien	CMS WebView
Teresa Brown	CMS WebView
Bob Antell	CMS WebView
Tom Jordan	FIF
Rob Schroeder	FIF

Leo McBlain	FIF
Richard Shriver	Jordan And Jordan
Jim Sudol	Jordan And Jordan
Jim Northey	Jordan And Jordan
Devon Methven	Jordan And Jordan
Leo Vozel	Jordan And Jordan
Tom Etheridge	Jordan And Jordan
Manisha Kulkarni	Jordan And Jordan
Steve Dickey	CBOT
Mike Boyle	CBOT
Mike Doherty	Susquehanna Investment Group
Shelly Brown	Susquehanna Investment Group
Patrick Kenney	Pats Systems
Jimmy Karalis	Citadel
David Hershfeld	Citadel
Lynn Martin	Liffe Euronext
Bob Walsh	One Chicago
Joe Turso	Bank of America
Christina Sciotto	Townsend Analytics

### **Agenda:**

- Special Discussion  
Looking at U.S. Markets as the Momentum of Electronic Trading Increases.  
Leo McBliain(FIF) , Jenny Drake(Arca) , Charlie Troxel(CME) , Tom Knorring(CBOE) & General Discussion
- Updates from Exchanges
- Updates from Vendors
- Updates from Customers
- Initiative to combine order entry/routing with market data and FIF involvement
- Other New Topics
- Next Meeting

### **1. Looking at U.S. Markets as the Momentum of Electronic Trading Increases.**

Electronic Trading activity in U.S. markets continues to increase, as volume shifts from traditional floor environments to electronic systems. The Futures markets have seen the most dramatic change, as electronic systems at established Chicago exchanges account for an increasing share of total exchange trade volume and electronic-only exchanges are looking towards gaining market share in US markets. In the equities and index options world, all-electronic exchanges have captured a major share of the market, as established options exchanges push ahead with hybrid systems enabling remote market makers and investors to trade electronically, alongside their floor trading. In the equities world, the SEC's Regulation NMS proposes significant changes to order handling, trading rules and market data policies as exchanges and ECNs ponder what challenges and opportunities the new rules create for them.

Speakers:

Leo McBlain(FIF) – Panel Moderator

Jenny Drake(Arca)  
Charlie Troxel(CME)  
Tom Knorring(CBOE)

**Intro: Leo McBlain(FIF)**

In Chicago, the floor is where the trading is, but as electronic trading platforms gain popularity, and reach headline grabbing milestones, the action is shifting towards electronic trading. Regulation NMS( see the FIF website for background materials) Introduces a new set of foundation rules, which may define a new set of facilities that may enable new opportunities to become available. Technology is a driver toward electronic trading, with the increase in capacity demands that accompany it. We will discuss the rapid growth of US electronic trading.

The FIF is addressing this topic, and while we are open to information sharing, we aren't open to publicity.

Panel Introduction:

**Charlie Troxel**, Chief Technology Officer- Chicago Mercantile Exchange(CME) : Has 6 years with the exchange, and as CTO, manages all technology at the exchange. The Exchange enables open outcry and electronic trading, as well as clearinghouse functionality. The CME is expanding its global reach through communications hubs in Europe and Asia.

**Jenny Drake:** Managing Director of ArcaExchange. Has 4 years at Arca. Arca is a new member of FIF. One of the key things to keep in mind is how important data is to the industry. The current market data rules in place support competition with NASDAQ(Super-Montage) .

**Tom Knorring** has worked at the CBOE since 1976, focusing on Technology, autoquote capabilities, and the growth of market data systems and associated infrastructure.

- **What are the biggest drivers behind the growth in Electronic Trading?**

**Charlie Troxel:** The CME has experienced growth in Electronic Trading by over 150%;while open outcry has been growing at a 5% clip. The CME feels that their electronic execution platform has opened their market up to new traders. They are looking for a 50% growth rate in ET, and are planning to expand their portfolio of electronically traded products to include options, more Eurodollar offerings, equity options, as well as more global reaching products. This should enable traders to use the CME as a hedge against their other holdings. As the volatility in the world increases, the need for these products and services will also increase.

On October 19, the CME concluded their 1,000,000,000<sup>th</sup> electronic trade. They expect to reach the 2 billion trade threshold some time next year.

**Jenny Drake:** ARCA has established some benefits versus traditional execution venues. These include:

- Algorithmic Execution

- Anonymous Trading
- Some of the additional benefits that automation brings.
  1. Increase in trading activity as a result of automation, technology brings in new players
  0. Ability to control your order has brought players from manual markets into Electronic Trading.

**Tom Knorring:** The exchanges represented on the panel represent the different types of execution venues, CME: open Outcry (with some ET); ARCA: fully electronic, and CBOE a Hybrid market integrating electronic trading into the floor structure.

- **Investors: Who are the biggest users of electronic trading? How are they taking advantage of electronic markets? What strategies are they using?**

**Jenny Drake:** ARCA's business is split between the retail and institutional investor. On the Retail side, a lot of order flow is not driven directly to electronic markets, but instead works its way from traditional execution venues to electronic execution through secondary channels. On the institutional side, they typically are trading for their own accounts, or are using electronic orders to get quickly in and out of arbitrage situations.

**Charlie Troxel:** The Futures business in general is a more professional market, with most participants being institutional traders. The CME doesn't have a lot of direct retail business, but some retail business is mixed in with the order flow from FCM( Futures Commission Merchants). Some institutional investors are trading the treasury yield curve, and hedging foreign currency risk. About 30-50% of the CME business is currency related.

**Tom Knorring:** Typical CBOE end users look at about 50 quotes before making a transaction. Users are looking for price anomalies that they can take advantage of. The typical CBOE end users are mostly professional.

- **Market makers and Specialists: How are they being impacted? What are their strategies to adapt to the new environment?**

**Charlie Troxel:** On the floor, you can quote as much or as little as you want, while if you trade electronically, you may get hit for more than you would have liked. If you enter electronic orders simultaneously in multiple venues, you could get hit for all of them, while open-outcry trading, this wouldn't be a risk.

**Tom Knorring:** The CBOE is pricing the same instruments as other exchanges, so a wrong quote can result in financial losses. You can't make as many mistakes without having to pay for them in an electronic market.

- **Markets: How are the markets themselves being impacted? What are exchanges doing to adjust?**

**Jenny Drake:** The issue is: “who will be supporting the transition from manual to automatic quoting”. Who should be managing technology, should it be built by market centers or broker/dealers?

**Charlie Troxel:** The CME has deployed about 400-500 handheld devices on the floor to trade the GLOBEX electronic market simultaneously with the open outcry market. This solution connected electronic trading with open outcry on the floor. The CME has also set up an extensive training program centered around GLOBEX, providing training for current floor traders and other interested parties.

**Tom Knorring:** On the CBOE, about 98% of orders come in electronically, but they account for about 40% of the total volume. CBOE is trying to integrate the electronic and open outcry markets using a system called HYBRID( no relation to the NYSE plan with the same name). HYBRID will enable floor traders to use devices to quote and trade electronically right on the floor.

- **Regulators: Do you see regulators increasing or decreasing their involvement in the changing market structure?**

**Jenny Drake:** Regulation is an important driver to the financial markets. Regulation is important, but over-regulating can become a deterrent to the markets. One regulatory question is related to Reg. NMS, should market data come through the SIP system, or should it go to a competing structure? Need efficient rules in place to promote competition.

**Charlie Troxel:** The Futures industry is becoming more and more like the securities industry, and in fact the boundaries between the asset classes are breaking down. It will become an issue as the product areas merge together, who will regulate them ( CFTC or SEC? ). The One Chicago Single Stock Futures (SSF) product is an example of this merging.

**Tom Knorring:** The SEC is pushing in seemingly different directions. They want to reduce the number of quotes, but want more players (market makers) to provide quotes for instruments. As more products move to HYBRID, like the OEX and SPX index options, there will be more option quotes generated.

- **Market Data Traffic Growth:**

**Is autoquoting essential?**

**Tom Knorring:** Auto-quoting is necessary because of the huge number of instruments traded on the CBOE. Taking issues, expirations and strike process into account, there are around 120,000 unique instrument traded on the CBOE.

**Jenny Drake:** There are two types of quotes, One that is required by the SEC to maintain a market, required by market makers. The other is generated by an automated system to set the actual price in the market.

**Charlie Troxel:** Some products are so active that they don't need auto-quoting. Most products have "Actionable Quotes" where the quoting is done by parties that want to trade. There are also "Indicative Quotes" done to establish a price for a given commodity.

- **What do you see for market data growth in the next year and beyond?**

**Charlie Troxel:** The CME currently has a 3:1 quote to trade ratio. This ratio will be increasing, and the exchange may need to engineer technology to be able to handle the anticipated expansion in quotes.

**Tom Knorring:** Last year there was a 17,000 MPS (Messages per second) peak, and this year the current peak is 32,000 MPS. As the BOX, CBOE and ISE are all auto-quoting the option quote traffic will be increasing, probably in the 50-75% growth rate range.

**Jenny Drake:** Organizations that hedge between products are the largest consumers of bandwidth. Traffic in listed stocks has doubled in the past few months, driven by new players entering the market. There will probably be exponential rather than arithmetic growth in market data volume.

- **Do you see any good strategies for moderating the traffic growth  
What are the present and future drivers of market data growth?**

**Charlie Troxel:** The real impact of the market data volume growth is that consumers of market data will need to pay for more bandwidth. Where a 56K line was sufficient 2 years ago, now we will need higher capacity connections, and soon they will be replaced by even higher capacity lines. There needs to be a way to mitigate the traffic, either using message formats or compression. Also, someone needs to ask the question, "What value does traffic provide to a trader?"

The distributed order book is another solution; it will provide a different way to display market data. Its deployment is a few years away.

Focus on data and data efficiency:

- Make sure only important information is being sent
- Pick an efficient format for sending data. Using binary instead of ASCII coding cut traffic by about 30%
- Work with market makers to make sure information/quotes are relevant to the market and consumers
- Get rid of quote traffic for orders that are not likely to be executed

**Tom Knorring:** The CBOE is working to deliver quotes and trades for a large list of possible products. The CBOE has about 100,000 orders but over 100,000,000 quotes on a typical day.

- **Q & A**

**Brian McNelis:** What is the approximate Quote to Trade ratio for your exchanges, industries?

**Charlie Troxel:** The tick size has an effect on the quote to trade ratio. A smaller tick size implies more quoting. There is a distinction by product:

**Equities:** Usually a 2:1 or even a 1:1 ratio, with no market making

**Currency:** Ratios are larger, ranging from 15:1 to 20:1 up to 100:1, depending on the currency and the market. Major banks are the market makers in the currency markets.

**EuroDollar:** Usually ranges between equity and currency markets.

**Tom Knorring:** The CBOE had a quote to trade ratio of approximately 717:1 a year ago, and the current quote to trade ratio is around 1725:1.

**Jenny Drake:** ARCA has approximately 3 events per order, while experiencing about 400 million quotes for about 31 million orders. Post-decimalization makes deeper quoting more relevant.

- **Conclusion(Leo McBlain)**

In the face of growth in quote traffic we need to look at the quality of quotes that are coming out of the markets, and see how much of those quotes are driven by market-maker regulations. In addition, it's important to keep in mind that regulators seem to be willing to listen to the industry more, and therefore there may be an opportunity to resolve some long-term issues.

## **9. Updates from Exchanges**

- Coleen McGrath(NASDAQ): There will be a new UQDF update for November 1, with a 20% increase accommodating the anticipated increase in volume for the next Quad Witching day on December 17.
- Bob Walsh (One Chicago) will be making a network upgrade from 512K to 2 Meg lines. They will be offering book depth; and this will be priced favorably to subscribers.

## **10. Initiative to combine order entry/routing with market data and FIF involvement**

Ron Newell (CME) Presented the CME "Optimized for Real-Time" report see attached.

Conclusion: Fixed Length messages are padded, and the padding makes them inefficient. An optimized message format minimizes formatting overhead and reduces impact on real-time market data.

## **11. Option Volume – Jeff Wells**

Background: The FIF has started an effort to address to growth in options volume by writing a letter stating the problem and helping to facilitate industry discussion of possible solutions. There are still some open issues, and it is still a work in progress. A draft of the letter is attached, and the FIF will be holding a workshop in November to address the issues in he letter directly.

## **12. FIF Market Data Capacity Report**

[http://www.fif.com/docs/final\\_charted\\_oct2004.pdf?PHPSESSID=bf0ae90b26dca80cc883af86d4678bb1](http://www.fif.com/docs/final_charted_oct2004.pdf?PHPSESSID=bf0ae90b26dca80cc883af86d4678bb1)

## **13. Next Meeting**

Will be January 20, 2005 at 2:00 PM. More details will follow.