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## U.S. Securities and Exchange Commission

### **Division of Market Regulation: Advisory Committee on Market Information: Minutes of October 10, 2000 Meeting**

**Tuesday, October 10, 2000  
1:00 p.m.**

**Securities and Exchange Commission  
450 Fifth Street, N.W.  
Washington, D.C.**

**Before: Arthur Levitt, Chairman**

### **Participants**

**Mr. Michael Atkin**  
Vice President, Financial Information Services Division,  
Software and Information Industry Association

**Mr. Harold S. Bradley**  
Senior Vice President, Investment Management,  
American Century

**Mr. Robert G. Britz**  
Group Executive Vice President,  
New York Stock Exchange

**Mr. Andrew M. Brooks**  
Vice President, Head of Equity Trading,  
T. Rowe Price

**Mr. Robert Colby**  
Deputy Director, Division of Market  
Regulation, SEC

**Mr. Matthew S. Desalvo**  
Managing Director, Morgan Stanley  
Dean Witter

**Ms. Carrie E. Dwyer**  
General Counsel and Executive Vice President,

Charles Schwab

**Mr. Robert H. Forney**

President and CEO, Chicago Stock Exchange

**Mr. Joel Greenberg**

Managing Director, Susquehanna Partners

**Mr. William R. Harts**

Managing Director, Salomon Smith Barney

**Mr. George K. Jennison**

Senior Managing Director, Retail Equity Group,  
First Union Securities

**Prof. Simon Johnson** (via telephone)

Sloan School of Management, Massachusetts  
Institute of Technology

**Mr. Edward J. Joyce**

President and Chief Operating Officer,  
Chicago Board Options Exchange

**Mr. Richard Ketchum**

President and Chief Operating Officer,  
National Association of Securities Dealers

**Prof. Donald C. Langevoort**

Georgetown University Law Center

**Mr. Arthur Levitt**

Chairman, SEC

**Mr. Bernard L. Madoff**

Bernard L. Madoff Investment Securities

**Mr. Mark A. Minister**

President and CEO, Bridge Training

**Ms. Annette L. Nazareth**

Director, Division of Market Regulation, SEC

**Mr. Edward Nicoll**

Chairman and CEO, Datek Online Holdings

**Mr. Kenneth D. Pasternak**

President and CEO, Knight/Trimark Group

**Mr. Gerald D. Putnam**

Chief Executive Officer, Archipelago

[Home](#) | [Previous Page](#)**U.S. Securities and Exchange Commission****Division of Market Regulation:  
Advisory Committee on Market Information:  
Minutes of December 14, 2000 Meeting**

***Thursday, December 14, 2000  
1:12 p.m.***

**Securities and Exchange Commission  
450 Fifth Street, N.W.  
Washington, D.C.**

**Participants**

**Mr. Michael Atkin**  
Vice President, Financial Information Services Division,  
Software and Information Industry Association

**Robert G. Britz**  
New York Stock Exchange

**Andrew M. Brooks**  
T. Rowe Price

**Robert Colby**  
SEC

**Matthew S. DeSalvo**  
Morgan Stanley Dean Witter

**Carrie E. Dwyer**  
Charles Schwab

**Mitchell Feuer**  
Reuters America

**Joel Greenberg**  
Susquehanna Partners

**David A. Hunt**  
McKinsey & Company

**Simon Johnson**  
Massachusetts Institute of Technology

**Richard Ketchum**  
National Association of Securities Dealers

**Donald C. Langevoort**  
Georgetown University Law Center

**Bernard L. Madoff**  
Bernard L. Madoff Investment Securities

**Mark A. Minister**  
Bridge Trading

**Annette L. Nazareth**  
SEC

**Edward Nicoll**  
Datek Online Holdings

**Gerald D. Putnam**  
Archipelago

**Peter Quick**  
American Stock Exchange

**Eric D. Roiter**  
Fidelity Management & Research Co.

**Joel Seligman**  
Washington University School of Law

*By Telephone*

**Robert H. Forney**  
Chicago Stock Exchange

**William R. Harts**  
Salomon Smith Barney

**Edward J. Joyce**  
Chicago Board Options Exchange

**Thomas M. Joyce**  
Merrill Lynch

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Advisory Committee on Market Information:  
Minutes of March 1, 2001 Meeting*****Thursday, March 1, 2001  
9:00 a.m.*****Securities and Exchange Commission  
450 Fifth Street, N.W.  
Washington, D.C.*****Before: Laura Unger, Acting Chairman*****Participants****Mr. Michael Atkin**

Vice President, Financial Information Services Division,  
Software and Information Industry Association

**Mr. Harold S. Bradley**

Senior Vice President, Investment Management,  
American Century

**Mr. Robert G. Britz**

Group Executive Vice President,  
New York Stock Exchange

**Mr. Andrew M. Brooks**

Vice President, Head of Equity Trading,  
T. Rowe Price

**Mr. Paul R. Carey, Commissioner,  
SEC****Mr. Robert Colby**

Deputy Director, Division of Market Regulation,  
SEC

**Mr. Matthew S. DeSalvo**

Managing Director,  
Morgan Stanley Dean Witter

**Ms. Carrie E. Dwyer**

General Counsel and Executive Vice President,  
Charles Schwab

**Mr. Joel Greenberg**

Managing Director,  
Susquehanna Partners Brian McNelis

**Mr. William R. Harts**

Managing Director  
Salomon Smith Barney

**Mr. George K. Jennison**

Senior Managing Director, Retail Equity Group,  
First Union Securities

**Prof. Simon Johnson**

Sloan School of Management,  
Massachusetts Institute of Technology

**Mr. Edward J. Joyce**

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Chicago Board Options Exchange

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National Association of Securities Dealers

**Mr. Donald C. Langevoort**

Professor,  
Georgetown University Law Center

**Mr. Bernard L. Madoff**

Bernard L. Madoff Investment Securities

**Mr. Brian McNelis**

Vice President,  
Reuters America

**Mr. Mark A. Minister**

President and CEO,  
Bridge Training

**Ms. Annette L. Nazareth**

Director, Division of Market Regulation,  
SEC

**Mr. Edward Nicholl**

Chairman and CEO  
Datek Online Holdings

UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
ADVISORY COMMITTEE ON MARKET INFORMATION

Thursday, April 12, 2001  
9:07 a.m.

Securities and Exchange Commission  
450 Fifth Street, N.W.  
Washington, D.C.

Diversified Reporting Services, Inc.  
(202) 296-9626

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PARTICIPANTS:

MR. MICHAEL ATKIN  
Vice President, Financial Information Services Division,  
Software and Information Industry Association

MR. ROBERT G. BRITZ  
Group Executive Vice President,  
New York Stock Exchange

MR. ANDREW M. BROOKS  
Vice President, Head of Equity Trading,  
T. Rowe Price

MR. ROBERT COLBY  
Deputy Director, Division of Market Regulation,  
SEC

MR. THOMAS DAVIN  
Nasdaq

MR. MICHAEL T. DORSEY  
Senior Vice President, General Counsel  
and Secretary  
Knight Trading Group

MR. JAMES DOUGHAN  
Susquehanna Partners

MS. CARRIE E. DWYER  
General Counsel and Executive Vice President,  
Charles Schwab

MS. ADENA FRIEDMAN  
Senior Vice President  
Nasdaq

MR. THOMAS HALEY  
New York Stock Exchange

MR. DAVID A. HUNT  
Partner  
McKinsey & Company

MR. GEORGE K. JENNISON  
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First Union Securities

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PARTICIPANTS (CONTINUED) :

PROF. SIMON JOHNSON  
Sloan School of Management,  
Massachusetts Institute of Technology

MR. DONALD C. LANGEVOORT  
Professor,  
Georgetown University Law Center

MR. BERNARD L. MADOFF

[Home](#) | [Previous Page](#)**U.S. Securities and Exchange Commission****Division of Market Regulation:  
Advisory Committee on Market Information:  
Minutes of May 14, 2001 Meeting**

**Monday, May 14, 2001  
9:00 a.m. - 5:15 p.m.**

**Securities and Exchange Commission  
450 Fifth Street, N.W.  
Washington, D.C.**

**Before: Laura Unger, Acting Chairman**

**Participants**

**Mr. Michael Atkin,**  
Vice President, Financial Information Services Division,  
Software and Information Industry Association

**Ms. Kerry Baker,**  
Director of Market Data,  
American Stock Exchange

**Mr. Harold S. Bradley, (by telephone)**  
Senior Vice President, Investment Management,  
American Century

**Mr. Richard Bernard,**  
Group Executive Vice President,  
New York Stock Exchange

**Mr. Robert Colby,**  
Deputy Director, Division of Market Regulation, SEC

**Mr. Tom Demchak,**  
SIAC

**Mr. Matthew S. DeSalvo, (by telephone)**  
Managing Director,  
Morgan Stanley Dean Witter

**Mr. Michael T. Dorsey,**  
Senior Vice President, General Counsel and  
Secretary, Knight Trading Group

**Mr. James Doughan,**  
Susquehanna Partners

**Mr. Robert H. Forney,**  
President and CEO, Chicago Stock Exchange

**Ms. Adena Friedman,**  
Nasdaq

**Mr. William R. Harts,**  
Managing Director, Salomon Smith Barney

**Mr. David A. Hunt,**  
Partner, McKinsey & Company

**Mr. Isaac C. Hunt, Jr.,**  
Commissioner, SEC

**Prof. Simon Johnson**  
Sloan School of Management, Massachusetts  
Institute of Technology

**Mr. Edward J. Joyce**  
President and Chief Operating Officer,  
Chicago Board Options Exchange

**Mr. Richard Ketchum**  
Deputy Chairman and President,  
Nasdaq

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Georgetown University Law Center

**Mr. Bernard L. Madoff**  
Bernard L. Madoff Investment Securities

**Mr. Brian Mcnelis,**  
Vice President, Reuters America

**Mr. Mark A. Minister**  
President and CEO, Bridge Training

**Ms. Annette L. Nazareth**  
Director, Division of Market Regulation, SEC

**Mr. Edward Nicoll**



## U.S. Securities and Exchange Commission

### Advisory Committee on Market Information

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- Charles Schwab & Co. Separate Statement on the Subcommittee (May 10, 2001)
- Simon Johnson Memorandum on Economic Matters (May 7, 2001)
- Don Langevoort Memorandum on the Subcommittee on Alternative Models (May 7, 2001)
- FISD Vendor Survey (Apr. 25, 2001)
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- Reuters Group PLC, Response to SEC Questions (Mar. 30, 2001)
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- Nasdaq Letter, Recommendation for an Alternative Model, and Comments on the March 1 Agenda (Feb. 19, 2001) (these are PDF files)
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- Charles Schwab & Co. Comments on the March 1 Agenda (Feb. 15, 2001)
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- Archipelago LLC Letter and

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- Datek Online Holdings Corp. Recommendation for an Alternative Model (Dec. 5, 2000)
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*<http://www.sec.gov/divisions/marketreg/marketinfo.shtml>*

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Modified: 09/17/2002

[Home](#) | [Previous Page](#)**U.S. Securities and Exchange Commission****Division of Market Regulation:  
Advisory Committee on Market Information:  
Minutes of July 19, 2001 Meeting**

*Thursday, July 19, 2001  
9:15 a.m. - 1:40 p.m.*

**Securities and Exchange Commission  
450 Fifth Street, N.W.  
Washington, D.C.**

*Before: Dean Joel Seligman, Chair/Moderator*

**Participants**

**MR. MICHAEL ATKIN,**  
Vice President, Financial Information Services Division,  
Software and Information Industry Association

**MR. ANDREW BROOKS,**  
V.P. Head of Equity Trading,  
T. Rowe Price

**MR. RICHARD BERNARD,**  
Group Executive Vice President,  
New York Stock Exchange

**MR. ROBERT COLBY,**  
Deputy Director, Division of Market  
Regulation, SEC

**MR. PHILIP DEFEO,**  
Chairman/CEO, Pacific Stock Exchange

**MR. BRIAN FAUGHNAN,**  
SAIC

**MR. GREENBERT,**  
Managing Director, Susquehanna Partners

**MR. WILLIAM R. HARTS,**  
Managing Director, Salomon Smith Barney

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Morgan, Stanley, Dean, Whitter

**MR. EDWARD J. JOYCE**  
President and Chief Operating Officer,  
Chicago Board Options Exchange

**MR. RICHARD KETCHUM**  
Deputy Chairman and President,  
Nasdaq

**PROF. DONALD C. LANGEVOORT**  
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**MR. BERNARD L. MADOFF**  
Bernard L. Madoff Investment Securities

**MR. MICHAEL MEYER,**

**MS. ANNETTE L. NAZARETH**  
Director, Division of Market  
Regulation, SEC

**MR. GERALD PUTNAM,**  
CEO, Archepelago

**MR. PETER QUICK,**  
President, American Stock Exchange

**MR. CHARLES ROGERS,**  
Executive V.P., Philadelphia Stock Exchange

**MR. ERIC D. ROITER (By Telephone),**  
Senior Vice President and General Counsel,  
Fidelity Management & Research Company

**MR. MICHAEL SIMON,**  
Senior V.P., General Counsel,  
International Stock Exchange

**MR. CAMERON SMITH,**  
General Counsel, Datek Online Holdings

**DEAN JOEL SELIGMAN, Chair/Moderator**  
Washington University School of Law

**MR. MARK TELLINI,**  
Senior Vice President,  
Charles Schwab

## C O N T E N T S

Introductory Remarks

Dean Joel Seligman

I. Presentations on Options Market Issues

A. Annette Nazareth: Differences in Regulatory Treatment of Stock Options Market Data; Current SEC Issues

B. Michael Meyer: OPRA Issues

C. Michael Atkin: Vendor Issues

D. Brian Faughnan (SIAC): Technological Issues

II. Discussion

Should our recommendations for the options markets differ from our recommendations for the stock markets? If so, in what respects?

A. Transparency

Does the greater volume of options market data necessitate a different type of transparency than for market data of the underlying stocks (e.g., less transparency for less actively-traded options series; a "request-for-quote" system; strategies for "flickering" quotes)? How should capacity concerns be addressed, both at the consolidator and vendor levels?

B. Consolidated Information

Should the Display Rule be extended to the options markets? To what extent would mandatory dissemination of an NBBO mitigate capacity concerns? Should options market participants be permitted to distribute separately information beyond the mandatory minimum?

C. Single vs. Competing Consolidators

Does a majority of Advisory Committee believe that the competing consolidators model should be introduced in the options markets? Would the volume of options data, and the related capacity issues make entry by competing consolidators more difficult?

D. Improvements to Existing Model

What improvements would those recommending retention of the single consolidator model suggest for the options markets?

Should they differ in any way from those recommended for the stock market?

#### E Other Issues

### PROCEEDINGS

MR. SELIGMAN: This is our final meeting of the SEC Advisory Committee on Market Information. As with all of our meetings, the public will have an opportunity to comment or post questions at the conclusion of the committee discussion.

We anticipate this meeting will be finished before a late lunchtime, approximately 1 p.m. We'll have about a 15-minute break a couple of hours down the line.

Our topic today is market information in the options context. And in a couple of very significant respects, this context is different than equities. Because of capacity issues, because of settlements of various underlying litigation each of the option exchanges has made proposals to the Commission which, at the moment, are not public and, at the moment, are being discussed between the exchanges and the Division of Market Regulation.

To some degree, I suspect, the discussion today will reflect aspects of consensus that has been arrived at within the discussions with OPRA and the discussions among the options exchanges, but I have not seen those proposals, nor would it be appropriate for the SEC representatives to directly paraphrase them.

So that, in one sense, we're operating much more in a work-in-progress mode today than we were with equities. In a second sense, there is an ongoing arbitration concerning Reuters that deals with market information as well.

As was indicated at earlier meetings, it is not the purpose of this committee to weigh in on any side with respect to that particular ongoing arbitration, and, hopefully, today we won't see a rehashing of positions there. There has not been, obviously, a final conclusion to that as well.

Now what I would like to do at the beginning of today's meeting is to lay out in some detail the distinctions in factual context and legal context between the options and the equities. We gave some thought to this. We decided to have four presentations.

We're privileged, as always, to have the Director of Market Regulation, Annette Nazareth, with us to present an articulation in the differences in regulatory treatment of the stock and options market, and that will give us, kind of, overriding legal context.

And then, from OPRA, Mike Meyer is going to lay out options issues and try to highlight to some degree on behalf of the options exchanges how they see factual differences. Mike has a handout that summarizes his comments, which many of you will want to see, if you haven't received it yet.

Mike Atkin is then going to focus on a perspective from the point of view of vendors. Committee members should already have received a copy of his distribution, and, if not, there are additional copies available.

And finally, Brian -- is it Faughnan?

MR. FAUGHNAN: Faughnan.

MR. SELIGMAN: Faughnan. Forgive me. I've just been calling you Brian -- will focus on technological issues. After that we'll take a short break, and then, as a group, we'll discuss the policy recommendations we'll make to the Commission for the balance of the meeting.

Let me now turn things over to Annette.

MS. NAZARETH: Thanks Joel. I thought I would give you a bit of background on the regulatory and what derives from that, the factual differences between the options market data and equity market data and, hopefully, this background will help us in assessing the extent to which the recommendations of this committee will differ, if at all, between the options markets and the stock market.

Just to give you a little bit of background, as, obviously, most of you are aware, standardized options began trading in 1973 with the Commission's registration of the Chicago Board of Options Exchange as a national securities exchange.

And as trading in options grew, the Commission approved options trading on other exchanges as well, and today standardized options trade on five exchanges -- the AMEX, the CBOE, the ISE, the Pacific Exchange and the Philadelphia Stock Exchange.

Stepping back a bit, I thought I'd take just a couple of minutes to discuss the development of options trading. In the mid-1970s, as options trading was experiencing rapid and substantial growth, concerns about trading in sales practice abuses arose, and by July of 1977 the expansion in listed options trading, including trading certain options trading classes on more than one exchange, led to allegations that there was manipulation in the market for exchange-traded options.

And in response to that situation, the Commission requested that the options exchanges voluntarily refrain from listing any options classes beyond those already listed as of July 1977, and it initiated an investigation and a special study of the options market in October of 1977.

The Options Study outlined several familiar issues -- some things never change -- to be explored in the options market, including comprehensive quote system for the dissemination of firm quotes, market linkage, an order routing system to enable the best execution of orders, a nationwide limit order protection rule to ensure that agency orders received auction-type trading protections, and off- board trading restrictions.

In 1980, the Commission ended its moratorium on expansion of standardized options trading and solicited comments on several profession

to more fully integrate the options markets into the national market system.

And in 1989, as you know, the Commission adopted Rule 19c-5, which generally prohibited an exchange from adopting rules that would limit its ability to list any stock option because that option was listed on another exchange.

Turning now to the regulatory treatment of the options market information, the production of consolidated market data information began in 1976 when the Commission approved the Options Price Reporting Authority's, or OPRA, registration as a SIP, or Securities Information Processor.

As initially approved, OPRA functioned as the administrator of a consolidated system for the collection and dissemination of reports of all completed transactions for all exchange-traded options. And then, in 1981, the Commission approved the addition to OPRA's functions of the collection and dissemination of consolidated quotation information for options, and at the same time the Commission approved the OPRA plan as a national market system plan.

Many of the other national market system initiatives that were embodied in Section 11A of the Exchange Act were implemented in the stock market at a time when standardized options trading was relatively new, and as a result those same provisions were not imposed on the options market.

In particular, when the Quote Rule was adopted for the equity securities in 1978, standardized options had only been traded for a few years, and so the Commission did not extend that to options at that time.

Similarly, when the Transaction Reporting Rule and the Display Rule were adopted in 1980, they, too, were not applied to the options markets; thus, the options markets were not required by SEC rule to collect and distribute and "trade" information, and vendors and broker dealers were not required, again by SEC rule, to provide consolidated options data.

In subsequent years, the Quote Rule, the Transaction Reporting Rule and the Display Rule also were not formally extended to the options markets in part because their purposes were largely achieved through the provisions of the OPRA plan.

As I mentioned, OPRA was already distributing consolidated quote information and transaction information, and, in addition, the non-discrimination provisions of the vendor agreements required by the OPRA plan effectively achieved the purposes of the Display Rule by requiring vendors to disseminate consolidated data.

Today, the options markets continue to operate with limited market integration facilities. The Commission has, however, as many of you in this room know, taken several recent steps to more fully integrate the options markets into the national markets system.

For example, the Commission adopted amendments to the Quote Rule, which became effective in this year, that formally extended it to

transactions in listed options. Among other things, the amendments require the options exchanges and the options market makers to publish firm quotes.

The amendments were distinguishable in certain key respects, those from the provisions that apply to equities; for example, because of capacity concerns, the options exchanges can elect at this time not to collect and make available the size associated with each quotation in this adoption. Instead, they may establish by rule and publish the size for which the best bid and offer in each options series is applicable.

In another step to integrate options trading into the national market system, the Commission recently adopted execution quality and order routing disclosure rules. And one of those rules, the Order Routing Disclosure Rule, currently applies to transactions in options as well as equities. And that rule became effective at the beginning of this month and, as you know, requires broker dealers to route customer orders -- that route customer orders in stocks and listed options to make publicly available quarterly reports that identify the venue to which customer orders are routed for execution.

The other rule, the Execution Quality Disclosure Rule for market centers, was not applied to the options markets, and that was in large part because currently there is no consolidated NBBO for listed options, and many of the calculation done under that rule require an NBBO.

The options exchanges, again, don't currently distribute an NBBO through the OPRA system; rather, each exchange calculates a best bid and offer for use by its own market. Because each exchange generally obtains quote information from the other four exchanges from OPRA and incorporated it into their quote directly, each OPRA exchange today is potentially using a slightly different best quote at any point in time.

As part of the reform of OPRA, however, the participant exchanges have agreed that an NBBO should be calculated by OPRA, but they have not yet come to agreement on how to do so. Indeed, one of the issues that seems to be debated at this point is whether an NBBO distributed through the OPRA system should indicate the market on which the NBBO is available.

With regard to the display of customer limit orders, the options exchanges currently are not subject to the Limit Order Display Rule, but some of the exchanges recently have filed proposed rule changes to adopt such requirements in their own markets similar to our Limit Order Display Rule.

Finally, the provisions of the OPRA plan mandate that the exchanges disseminate options market information only through OPRA with some narrow exceptions to permit electronic facilities to operate. We currently have before us an amendment to the OPRA plan that would permit the options exchanges to separately distribute their data so long as recipients of the consolidated data also receive full quote information or, ultimately, if there is an NBBO, that they would also receive an NBBO.

In addition to trying to better integrate the options markets into the national market system, the Commission and the options industry recently

had been devoting much attention to concerns about the capacity of options market information systems.

All the transactions executed on and all price quotations for options generated by each option exchange are communicated to the public by OPRA through the facility of its exclusive process of SIAC. Market data is sent to OPRA and distributed to market data vendors on a consolidated basis for use by options markets participants, including retail investors, broker dealers and the exchanges themselves.

Thus, SIAC and all the options markets participants as well as the communications lines between them must each have sufficient capacity to handle options market data. Note how this market data dissemination regime is distinguishable from equity securities. OPRA does not distribute an NBBO, as is the case in the equity markets, and pursuant to the terms of the OPRA plan the quotes of every options market must be distributed by vendors regardless of the market where the quotation took place, which is the language from the OPRA plan.

This situation poses unique issues in the options market. Each trade that is executed on an options exchange as well as each price change quoted on an options exchange is reported to OPRA as a message. As of May, there were approximately 377,000 open options series traded on the five options exchanges for which two-sided quotes were disseminated continuously through the OPRA system.

Quote message traffic represents the vast majority of the options message traffic that is generated. Generally, quotes are generated automatically for individual options series based on changes in the underlying stock price or index value.

In other words, every time a price changes for a particular equity security, the quotes of all the options on that security or an index in which that security is represented may be automatically updated on each exchange that trades those options.

This enormous amount of quote message traffic burdens the OPRA system and threatens to surprise the reliability of utility of options market data disseminated to market participants, including retail investors.

As options message traffic has increased over the past few years, OPRA has directed SIAC to implement systems enhancements to accommodate additional message traffic. In addition, the options exchanges have individually implemented a number of internal quote message mitigation strategies, and, in November of 2000, as a result of growing concern that the option exchanges will be unable to agree on how to allocate capacity during peak usage periods, the Commission adopted as a short-term solution amendments to the OPRA plan to establish a methodology by which limited OPRA system capacity available would be allocated if necessary.

The OPRA system capacity has recently been expanded to equal approximately 24,000 messages per second. Fortunately, peak usage to date has been just over 7,000 messages per second. Despite existing

excess in OPRA system capacity, volume concerns persist because of vendor capacity limitations and the potential for future increases in option quote volume.

The options exchanges are continuing to explore permanent industry-wide solutions to the capacity problem, including the development of a request for quote system, the imposition of industry-wide limitations on options products that may be listed based on numeric criteria and the use of an NBBO.

I hope this gives you some grounding in what the issues are concerning the options markets. I'm sure there will be some overlap between what I said and those who follow, but hopefully this provides us with some base on which to make our judgments in comparing what should be necessary for the options markets. Thank you.

MR. SELIGMAN: Thank you, Annette. Are there questions from the Committee?

(No response.)

MR. SELIGMAN: Okay. Let me now turn, then, to Mike Meyer. And I'd ask at the beginning of his presentation -- oh, I'm sorry.

MR. HARTS: I'm sorry. Annette, you mentioned that there's this issue about an NBBO being disseminated displaying which exchange has the best bid and offer. Is that the sole remaining barrier to approving that or to reaching an agreement?

MS. NAZARETH: No. I think there are others as well, but that was one that I thought was worthy of note.

MR. SELIGMAN: Let me turn to Mike Meyer, then, at this point, and ask if he could introduce -- do you want to speak from over there? I think it might be helpful -- if you'd like -- because of sight line issues, if you could introduce the representatives from the various options exchange.

MR. MEYER: Thank you, Joe. I am Mike Meyer, and I've been counsel to the Options Price Reporting Authority I guess since sometime in the late '70s, just the other day, I guess, it seems like to me. And there are a number of other people here who probably know more than I do about market information and options.

Several of the options exchanges have been represented on your committee right from the beginning. The AMEX, Peter Quick is here; CBOE, Joyce; ISE, Mike Simon; and now Charlie Rogers from the Philadelphia Exchange is at the table. And Joe Corrigan, who is the executive director of OPRA, is in the audience. Oh, and Phil DeFeo is also here from the Pacific Exchange.

And Phil, you've been here throughout, have you not, or are you just at this --

MR. DEFEO: First time.

MR. MEYER: First time. All right. So Pacific and Philadelphia are added. So that's pretty good representation. That's all the options exchanges and the executive director of OPRA, and I'm sure those people will provide their expert knowledge at the appropriate time.

I've prepared a brief outline of what I'll say. I'll try and keep the whole thing short. Joel told me to avoid cliches, be gender neutral and stay within the time limits. I'm not sure about the first two. It's hard to avoid cliches especially, but I'll try and stay within the time limit.

I did put something down in my outline about the really early history of OPRA, which is probably more interesting to me than anyone, because I lived it. The only point that's to be made there, I think, and this is a theme that I hope will echo through my brief remarks is, really, options are not different from equities in terms of the benefit to investors of transparency, a benefit to investors of access to market information.

And I believe the SEC right from the beginning recognized the significance of transparency in the options market. Indeed, that was one of the motivating factors for the initial approval of CBOE's proposal, because up to that time put and call options had been traded in a largely invisible over-the-counter market through the Put and Call Broker Dealers Association where the closest thing to transparencies were, anybody around old enough to remember, little advertisements that used to appear in the Wall Street Journal listing the prices at which puts and calls would be available.

And CBOE said as one of the reasons why its registration should be granted would be for the first time it would offer transparency. It would have, at the beginning, last sale reporting, real time last sale reporting.

When the AMEX, in '74, I believe it was, proposed an option market, that was at the same time that national market system notions were about. Congress was debating what ultimately became the '75 amendment itself to the Exchange Act.

At that early time, the Commission recognized the importance of transparency in options, and that's what I refer to here as really the earliest evidence of this was Lee Pickard, who was then the director of -- I can't remember whether it was called Trading in Markets or Market Regulation. It may still have been called -- but anyway, Annette's predecessor wrote a letter and said both the AMEX and the CBOE had to "satisfactorily address," that was the term, a number of issues.

One was common clearing, and that led to the Options Clearing Corporation. Another was a common tape for last sale reporting. That was even before the AMEX began to trade, and it was in recognition that there would likely not be much, if any, multiple trading at that time, so therefore not much to consolidate, maybe nothing to consolidate.

But with all the focus on national market system, the Commission decided wisely, I believe, that with options it had a chance to start with a clean slate, and it wanted the structure of the options market to have in place mechanisms for consolidated reporting, so that, when the time came that there would be the same option traded on more than one exchange there

wouldn't be the need to retrofit consolidated reporting into that, as was the case for stocks.

So that was the "satisfactorily address" letter, and that led directly to OPRA. And even though, as Annette described, the history of when OPRA filed what, under which rule, and when it became registered is what arcane and reflects the fact that the '75 amendments came along, and the Commission adopted new rules, the OPRA plan and OPRA itself go right back to the earliest days of options trading on more than one exchange and was, indeed, a condition to the AMEX's beginning and the condition to the CBOE's expanding what was a ten-series pilot.

So much for history. Certain SEC rules, in fact most of the SEC rules that apply to market information and stocks, at least in their inception, did not apply to options. That's not because there was some sense that transparency was less important for options, as I hope I've just made clear, but largely it was either because of kind of a fear of the unknown -- options were something new, and it wasn't clear what would happen if these rules that applied to stocks applied to options -- or because, in some cases, it simply was not at that time practical to apply the rules to options.

So for example, the Quote Rule, when the Quote Rule was first adopted, there was not yet the systems in place for auto quoting a multiple series of options, and the fear was that if a Quote Rule applied traders simply wouldn't be able to live within that rule. They couldn't possibly manually update the quotes in all of the series that they were trading in order to be firm on those quotes. So the Quote Rule simply didn't apply.

But as soon as the systems became available that enabled the traders to maintain quotes in all of those series, the auto quote systems, the exchanges themselves without any particular prodding from the Commission but, rather, in response to competitive conditions in the market, implemented those quote systems, and OPRA amended its plan to accommodate quotes, and under exchange rules those quotes became firm. So that's how quotes became a part of the options system.

The main distinguishing characteristic, I think, of options from stocks are the fact that options are traded in these multiple series. So that for any single stock, an IBM, whatever, you have a bid and an offer at any point in time. With options, you have a bid and an offer for each series in IBM.

And as others have and will describe to you, particularly in volatile times, when new series are open, when stock prices move, the old series don't go away until they expire, and before you know it you have hundreds if not thousands of series being quoted. That leads to this enormous amount of data.

I'm not a Power Point presenter. I don't have a lot of graphics, but I do have at the back of my little outline a couple of charts because they simply illustrate graphically what has happened to message traffic, over the years.

The first just shows the general explosive growth in options message traffic going back to 1995 and up to the present. The second chart is much the same; it just shows it in terms of peak messages. And the third chart

compares options messages with CT and CQ.

I guess, to be fair, in this chart you really need to add the CT and CQ, because CT is the last sale, and CQS are the quotes; whereas, options are both last sale and quotes, but quotes are largely what options are. You can see it's just orders of magnitude greater in the case of options.

What has accounted for the growth in message traffic in options has been a number of things; first, just the fact that it started as a brand new business at zero, and the market has grown, more options, more classes, more exchanges, more traders, therefore, more message traffic.

Add to that the expansion of multiple trading a couple of years ago where suddenly many more classes and series are traded on many more exchanges each of which generates its own quotes, that has caused the growth.

On top of that, add the fact that, unlike in the stock world where there is often a primary market and other exchanges simply echo or some say ape the quotes in that primary market, there really is no single primary market in options. Each exchange is quoting its own series the way it sees fit, and they change on each exchange not in relation to what happens in some primary market. That leads to many more and different quotes from time to time.

Then, finally, decimalization has certainly had its impact on increasing message traffic in options. When you look at all of these factors and consider how much message traffic has grown, I'll say, and hopefully not too defensively, that I think OPRA and SIAC have done a really terrific job in keeping ahead of that enormous growth.

Any business that grows at this rate is going to have capacity problems from time to time. If you build too much capacity too soon, you can't afford. Your customers can't afford it. And if you don't build enough capacity, can you go out of business.

OPRA and SIAC have done, really, a pretty good job and have kept ahead of the capacity curve almost all the time, although there was a period, and Annette referred to it, a couple of years ago, when there was a capacity crunch. It was the combination of all these factors and particularly the expansion of multiple trading. There were days -- and very volatile markets, I should add, at that particular time where there were queues in the OPRA line. There were delays, not often, but it should never happen.

I think it's fair to say that those problems, at least for now, are behind us. The solution to the problems, for the most part, consisted of building a bigger system, and OPRA has done that. So that when it has a system today that's capable of handling 24,000 messages per second and is scheduled to go up to 38,000 and when its peak has been somewhat over 7,000, there's a lot of head room there.

Really, there is no capacity problem today at OPRA, or at SIAC. It's another question as to how vendors and end-users can handle that amount of data. But of course, today, although the system is at 24,000, the actual message

traffic is substantially less than that.

The only thing on the horizon that could dramatically increase options message traffic might be if options were traded in pennies. And I think others may speak to that, but I don't think there's a whole lot of support for moving in that direction, to the contrary. But beyond that, I think most of the big changes are behind us, and I think we have an OPRA system that can handle its capacity.

I'm going to talk some more about capacity issues, however, it's kind of, the centerpiece of, I think, what you're all concerned about. Just a couple of other things before I get to that. I, kind of, departed from my outline a little bit.

OPRA is governed slightly different from CTA/CQ; I think reflecting its history and reflecting the fact that there's no single dominant primary market in OPRA. OPRA is a committee of exchanges. Each exchange has one vote on the committee. There is no network administrator on OPRA. No one exchange has any greater authority than any other.

OPRA is administered by a staff of full-time individuals headed by Joe Corrigan, who is here, its executive director. Nominally, those persons are employees of the CBOE. Originally, they were employees of the AMEX when OPRA was first organized, and it was simply decided to move that function to Chicago with AMEX's full support at the time, but that's nominal.

That's simply because OPRA itself, unlike CTA, is not an association, nor an entity. It's simply a committee of exchanges, and it cannot itself employ anyone. It doesn't have a taxpayer identification number, and what have you.

So, CBOE is the nominal employer. Each exchange has one vote on OPRA in every respect, except, a peculiarity of the plan is there is a weighted tie-breaking vote, and that has never happened. In other respects, OPRA is much like CTA. It charges more or less the same. The revenue is shared, and the basis of volume more or less the same.

There is one difference here, and that is OPRA has always presented itself more simply, I think, to the vendor community than CTA; that is, OPRA has a very simple schedule of fees, of vendor fees, subscriber fees. It doesn't matter how the vendor uses the data. It doesn't matter how the subscriber uses the data. The fees are, essentially, the same.

So there's less need for vendors and subscribers to describe to OPRA what they do with data. They don't have the same administrative burdens in maintaining their relationship with OPRA, as some of them have described for CTA.

Back to capacity just a little bit, and then I'll be, kind of, winding up my remarks. Although OPRA has not been subject to the Commission's Display Rule -- I think for the same reason that it hasn't been subject to other Commission rules when those rules were first adopted. The Display Rule requires collection of size, and OPRA still doesn't show size of its quote -- nevertheless, the OPRA plan right from the beginning has had its own

Display Rule which the Commission approved, and therefore indirectly is a Commission requirement pursuant to the OPRA plan.

The OPRA Display Rule simply says that a vendor, in redistributing options information, in effect, has to display consolidated information. It cannot display information selectively from less than all of the markets that trade a particular series.

Subject to that requirement, under the OPRA plan and under the vendor agreements, the vendors are free to filter, limit the data any way they want. Vendors can show options data for the near months only, for the most active underlying stocks only, or any other way that they may think it's in their interest to provide a service they can surely show less than everything. They simply cannot filter by market center in a multiply-traded option.

That may be significant in helping relieve vendors of the downstream capacity burden. Annette mentioned that OPRA is considering developing its own NBBO service, and it certainly is. And I think it's fair to say -- and any of the exchanges can correct me if I'm wrong -- that there really is agreement among the exchanges on all aspects of that OPRA- provided NBBO service except the issue of whether to show a market identifier or not. And while there is a majority and a minority view on that, it hasn't been resolved.

The unresolved issues, if any, are simply that that determination currently is bundled together with a number of other initiatives to make changes to OPRA some of which are in response to the settled enforcement cases, and others are simply in response to what OPRA sees as its needs. And there isn't agreement on all of those other things.

And to the extent that NBBO is bundled with all of those other things, then they all have to be resolved before the NBBO goes into place. Even on those others I don't think -- I don't want to overstate the differences -- There's largely agreement on everything. The devil is in the details, and there still is some disagreement on some of the details.

If OPRA provides an NBBO service, that won't have any impact on OPRA's systems because SIAC is still going to have to capture all of the quotes from all of the markets and process them, indeed process them one more way than it does today by reading those lines and identifying the best bid and offer at any point in time.

So there will be no reduction in the size of the OPRA system itself on account of NBBO. On the other hand, the OPRA system is quite large today and is capable of handling that.

Downstream, however, where vendors and end-users may have difficulty receiving so much data they will have one more alternative; namely, subscribe to an NBBO service only. And if they do that, although I don't know the technical answer how much of a reduction will there be, and I don't know whether -- Brian Faughnan of SIAC may give an educated guess on that -- but just intuitively it ought to be a substantial reduction in data, if all you're seeing is an NBBO.

The NBBO will change and change frequently but not as much as all of the quotes from all of the exchanges. So that ought to provide some substantial relief.

That ties to something else that I just want to talk about, and then maybe I'll stop talking. This committee has considered the question of competing consolidators or a single consolidator. OPRA, as does CTA, today follows the single consolidator model, and at least thus far within OPRA there hasn't been any initiative to move away from that model.

Personally, I think that it's the best model for options. I won't go beyond my focus and talk about what I think on equities, but for options I think it's the best model for some obvious reasons.

One is given the capacity needs of OPRA, it's costly to build a system of the size of the OPRA system, and to have to build a system of that size more than once over again really multiplies those costs to a point that it's just likely to be unacceptable.

If a particular competing consolidator looked at the world of OPRA and said, "Well, 7,000 is your peak. I don't need to go to 24- or 38,000. I'll build a 10,000 messages per second system and not spend so much money," now you'll have a situation where one consolidator system is different in size from account, and if we should get another capacity crunch one consolidator will queue when the other consolidator didn't queue. Different investors will see different things about the options market.

At least even during the period when we had problems no particular market was advantaged or disadvantaged as compared to anyone else. No investor was advantaged or disadvantaged. Everybody saw the same single feed, and when it queued, unfortunately it queued for everyone. It's just hard to imagine a world where some consolidators were showing different data from others.

I also think it's wise and safe to build a system with as much head room as OPRA has done, and that's, obviously, more affordable if you only have to do it one time and not many times over.

An argument in favor of competing consolidators that I've read, I guess, is that it promotes competition and innovation. OPRA, at least is considered ways to accomplish the same thing in reliance on its NBBO service and by relaxing what Annette referred to as the exclusivity requirement of a plan; that is -- and this isn't in place yet, but it certainly could be and is actively being considered -- if it were permitted, for exchanges, vendors, others to provide options information outside of the options system, so long as some minimum consolidated information accompanied that and that minimum could be nothing more than the consolidated NBBO, then that ought to allow exchanges and vendors to respond to market forces and innovate and create value-added services for which they perceive a demand. But at the same time, there would always be a single authoritative official source of a consolidated NBBO.

That's the direction that we're moving, and we look forward to finishing that work. One more thing. When we experienced the capacity crunch of a

couple of years ago, that was a difficult time, and I think we learned from it.

When there was a limitation on OPRA's capacity and the demand exceeded it, the exchanges needed to allocate that capacity among themselves. That proved to be difficult to accomplish because the exchanges compete with each other, and it's a zero sum piece of pie, not avoiding cliches despite Joel's warning. One exchange gives up a piece of pie, the other one gets it.

Nevertheless, with the Commission hanging around and knocking heads together, with difficulty the exchanges were able to allocate capacity to the extent they needed to get through that difficult period.

It was with that in mind, that the Commission then imposed its own formula for allocating capacity as an amendment to the plan, but with all respect the horse had already been stolen, and then the barn door got locked with that formula. Another cliche.

MR. SELIGMAN: That's three.

MR. MEYER: But they've all been gender neutral, if you noticed. We've never had to use that formula and likely never will because we have so much capacity today, and there's just no need to allocate.

Going forward -- and I won't take the time to wind together the strands from the enforcement settlement and the capacity needs which were, more or less independent of each other but just happened to occur at the same time.

OPRA has a plan going forward for dealing with capacity that ought to obviate the need ever to allocate either pursuant to the formula or in any other way. And in simple terms, it allows each exchange, in effect, to inform an independent authority, which will be the Independent System Capacity Authority, or ISCA, if you will, how much capacity it needs.

This independent authority will build the system through the processor, SIAC or whomever the processor may be, to satisfy the needs of the exchanges as communicated. Each exchange will pay for the capacity that's requested.

The independent authority has authority not to build all of the capacity required, if it thought that it was truly excessive and would impose costs on OPRA or the industry that they shouldn't have to bear. But in the ordinary case it wouldn't be expected to exercise that authority. It would be expected to do what the exchanges asked it to do.

That's an effort to put the capacity decisions into each exchange's own individual control for themselves. There are questions of sharing, and there will be sharing in order to make the thing work efficiently, but that's the direction that we're moving. That, too, is part of this bundled amendment where there's still some details to be ironed out, but we're moving in that way.

So Joel, maybe that said I'll stop and be happy to respond to any questions

now or later.

MR. SELIGMAN: Let me open it up to the group. Would they like to pose any questions to Mike at this point? Bill.

MR. HARTS: Bill Harts. I had a question about the graph and your peak rate. You're saying that now you can handle -- or you're about to be able to handle 24 or --

MR. MEYER: Can now handle 24,000, and 38,000 is the next step, which I think is going to be before the end of this year. Is that right, Joe? Third quarter of this year.

MR. HARTS: And is that per second or per minute? Because on the --

MR. MEYER: Per second.

MR. HARTS: -- graph it shows one minute peak rate, or is that supposed to be one second?

MR. MEYER: Well, that's a good question. I can tell you I think it's the peak in messages per second over a one minute period of time. So you take -- it's the averages over a minute, because you can get down to a microsecond, and it might come in higher than that.

So to make it meaningful you slice the time up into minutes, and then you average the rate for each minute, and highest we've experienced is 7,000 messages per second as an arch over a minute.

MR. HARTS: So over the course of that minute there were actually 420,000 --

MR. MEYER: If you've multiplied it by 60, that's what it would be.

MR. SELIGMAN: Any other questions for Mike? Mike Atkin.

MR. ATKIN: Maybe I misinterpreted something, but you said that the current peak is around 7,000 messages per second, and you said that most of the big hits on increasing traffic were over, yet the projection is for 24, and then after that is 32 and then 52. Is there some change that has occurred that would have some impact on those projections now that's different from previously?

MR. MEYER: Well, I think that the system is as large as it is first because we know that our projections are imperfect and that there can be events; for example, short-term events, that create great volatility and activity in the market that can give you a peak over a short period of time, some news event -- Greenspan does something -- what have you.

So we have to build for that, but also you hope to not have to be changing this year to year to year. There has been an overall growth in the options market. The exchanges expect that growth to continue. So looking longer term they need to build a system to handle the long-term growth.

What I meant was that the systematic changes that raise the level instantly to a new plateau seem largely to be behind this except for the possibility of trading in pennies.

MR. SELIGMAN: Other questions for Mike Meyer at this point?

(No response.)

MR. SELIGMAN: All right. Mike, why don't I invite you to take a chair and sit with us at the table.

MR. MEYER: Thank you.

MR. SELIGMAN: Let me ask Mike Atkin if he could make a presentation.

MR. ATKIN: During the conference call in preparation for this meeting which, of course, I was on because I thought we were talking about the final report, which turned out not to be even on the agenda for this meeting, I was surprised with a request by the Commission to do a survey of vendors and users and to try to summarize the issues related to capacity. And of course, I was delighted to help in any way.

At a minimum, as a result of this research, I learned a little bit about options markets, which I really had not much understanding before, and I was flooded with statistics and opinions from both user firms and vendors. And I think it's clear to say that there's absolutely no shortage of passion about this issue out there within the industry.

I'll also say that in addition to passion there is a lot of excellent research on options traffic mitigation strategies. As I indicated in my memo, I am clearly not an expert in options market data, but I now find myself in that most difficult of situations of having just enough information and understanding to be dangerous.

I also learned this morning that there was some conflict in the findings that I had in my report and what I learned from this morning's discussion. I certainly have not been able to reconcile those conflicts, and in listening to Mike speak we might be in violate agreement on many of the things that are in my report.

In order to get a passing grade from our professor over here, I spoke with eight vendors, ADP, Bloomberg, Bridge, MoneyLine, Reuters, S&P, Telekurs and Thomson. I spoke with five user firms, Fidelity, Goldman Sachs, Lazard, Merrill Lynch and UBS. And I spoke with two consultants. One is T. Williams, who is sitting here in the audience who was involved in doing the SRI consulting research study on options mitigation, also involved in decimalization issues. And Charlotte Cooney from Jordan & Jordan, who is doing a lot of work with SIA on decimalization.

I also sent my report to everybody I talked to. I sent it to our executive committee. So I feel pretty confident that the findings have been at least scrutinized and generally verified.

That being said, there was a surprising degree of consensus amongst

vendors and users on most, if not all, of the conclusions in our memo. I feel safe in reporting that there is a high degree of concern about both the growth of options traffic and the management and usefulness of options market data currently being disseminated.

Without exception everybody we spoke to is working hard to upgrade capacity, to upgrade bandwidth, to upgrade their processing power to meet SIAC projections. I do not believe, however, that at the present time the industry is ready to fully handle the current 24,000 messages per second projection into their distribution platforms.

Also, to say that there is a clear distinction between how options traders and market makers view options data and how the rest of the industry views options market data, in general, the options traders want every bit of data they can get their hands on for both the development of theoretical indications of market conditions and to meet their regulatory requirements for evaluation.

That being said, most everyone, perhaps even including the options traders, believe that the majority of quotes, specifically the "away from the market," the "out of the money," the individual exchange specific quotes, which, in my discussions the phrase "nothing more than free advertising" came up every time are, to be kind, considered less than useful.

The other consistent concern had to do with the lack of communication between the exchanges and the industry on both quote mitigation strategies and on capacity projections. The gap between projections and reality seems to be fairly wide. The cost of upgrading systems to meet projections is fairly high.

I guess one of the main conclusions is that the importance of a good and honest dialogue, if allowed, cannot be overstated. On a side note, I'll apologize for putting a little short course on options traffic in my memo. I did that because I thought there might be people like me who had no clue about how the options market worked.

One of the key points, however, is not only how the options pricing process works but the impact of corporate action information such as splits and mergers on options pricing and options data maintenance.

I got deluged with statistics and projections and scenarios from every side. I tried to put them in context for my memo. In broad terms, I think these are the most relevant ones. Options pricing is about 70 to 80 percent of U.S. market data traffic. Somewhere between 20 and 30 percent of opposites series have no open interest.

Zero open interest and zero volume account for a lot of quotes, perhaps as much as 60 percent or even more of total volume. Away from the market quotes, resulting from multiple listings, account for about 25 percent of volume.

So if I got the statistics right and I add it up correctly, that's somewhere over 70 percent of options quotes are considered not particularly useful by the people that we talked to. The other alarming statistic had to do with the

quote to trade ratio for options, particularly with fully electronic exchanges such as ISE, accounting for a significantly higher ratio of quotes to trades than the other exchanges.

If that trend is, then, for other exchanges to go more electronic, you can assume that ratio will increase, and hence data traffic will increase.

So what does this mean for vendors and for users? I think there are really two issues that were identify. The first had to do with the costs of data collection, processing and distribution. And the truth is that upgrading systems to handle increasing traffic projections is a costly thing for both vendors and users.

The key here, however, is not really about the cost of doing business. Vendors readily admit that they must be able to handle all of the data that's thrown at them. No one is complaining about that business requirement. That's what vendors do.

And users also readily admit that they expect their vendors to be able to handle everything that SIAC throws at them, and they also expect to be able to up grade their own internal systems to be able to handle all the data that's coming through.

The issue here, I think, is really twofold. First, is all that data really needed? And then second, if it is, what are the real projections on capacity so they can plan appropriately. The core message that I walk away with is that no one wants to haul around what they termed as useless data, and then making sense of all of that huge volume of data, as you put it into your databases and into your calculations is not a significant undertaking.

The second and perhaps most important perspective from the vendors -- and I should clarify this is only about data feed vendors. There really is no issue for stand-alone terminal vendors that I could find. The issue is about their desire for flexibility in creating useful services for their clients.

And I guess, Mike, this is where I seem to have a conflict with what you were saying. Vendors say that most of their clients don't want the raw OPRA feed. Many can't handle the volume of data. Customers want the vendor to be able to deal with all those data processing issues by filtering and by differing timely and accurate quotes on a variety of criteria, whether it be by contracts they're interested in or by fresh quotes or by NBBO or by whatever.

The core of the problem seems to be that requests by data feed customers to see collective detail on just specific options contracts results in an opening of the floodgates internally on all streaming updates on all data. And the vendors, more than two or three of them, said that what they desire is flexibility to be able to tailor products based on the specialized needs of their customers rather than on regulatory mandate.

And whether that mandate is by the Commission or by the exchanges I'm not sure, although there seems to be a conflict between what you were indicating and what I found.

I did have a conversation with a number of vendors on the range of possible approaches to address this problem. Everything I heard, kind of, falls broadly into four categories. The first is just deliver the full spectrum of updates, require your clients to upgrade their systems and processing capabilities to handle projections.

Second, vendor could manage the data by turning off part of the data stream or by filtering the data for the customer or by providing the customer with publish and subscribe tools to manage the data internally, although here I found a very big conflict between options traders requirements within a firm and the rest of the users within that.

The vendor could determine and disseminate quotes only from the primary market. This is all without judgment and assessment of whether this is actually possible or not. And then fourth, the vendor -- this is the most consistent recommendation -- the vendor or, preferably, the consolidator could calculate an initial NBBO and filter out all the unnecessary data.

Let me conclude with giving you the recommendations I heard from the people I talked with. I was, frankly, surprised at the consistency of quote mitigation recommendations on the things that at least this universe of people suggest that the Commission should consider.

I should also point out that we were asked to talk to the vendors and users. I did not talk to any of the exchanges. So for what it's worth, this is what came out of those discussions in order of passion.

First, I void penny increments at all costs. No one we spoke to considered them to be of any value whatsoever. Number two, create an official NBBO for options with the appropriate inter-market linkages and accurate size indicators. I should point out that this only helps reduce traffic if you allow people to distribute only the NBBO and not the individual exchange quotes.

Third, consider suspension or modification of the Firm Quote Rule to reduce the need for auto quoting for out of the money and away from the market quotes or, alternatively, set minimum underlying price changes to trigger options price recalculations.

Fourth, consider lounge for split services from OPRA; i.e., either the NBBO versus full detail or separate lines based on level of activity. It was surprising to learn that most people project there are well fewer than 100 locations globally that want the full data stream. And, in fact, if you say that those locations are, perhaps, multiple locations per customer it's even fewer.

Five, consider possible strategies to prioritize the disseminations of options based on value to end-users such as quote by request for out of the money, deep in the money, 4th expiration, less active options, things of that nature, although Mike seems to indicate that's currently possible.

And finally, provide and allow for an open dialogue among exchanges and vendors on options traffic issues. I'd like to re-enforce that vendors indicate that there is insufficient communication currently and even some reluctance among exchanges to discuss either quote mitigation strategies or capacity

projections, and this seems to be particularly important given that projections have been frequently well below actual levels.

So, as I indicated in our memo, if there is anything that the Commission would like for us to do to put some more flesh on this skeleton, we'd be delighted to do so. And if you have any questions, I'd be more than happy to answer them, if I can.

MR. SELIGMAN: Mike, first of all, let me thank you for a very thorough presentation and a very thoughtful memo. You began with a somewhat memorable phrase where you stated that on some issues there was "violate agreement."

I think it would be useful to take a look at pages 4 and 5 of your memo. I'm going to simultaneously ask both Mikes to respond to this and see where there appears to be agreement between, on the one hand, the vendors and users that Mike Atkin spoke to and, on the other hand, the options exchanges.

The listed six alternatives for consideration. I think it would be very useful for us to see where there are really differences. The first was "to avoid penny increments." If I heard both Mikes correctly, there seems to be general concord that nobody wants penny increments in at least these two camps.

MR. ATKIN: Absolutely.

MR. SELIGMAN: Okay. The second was with respect to an official, which I assume would mean by SEC rule, NBBO. In Mike Atkin's presentation, he focuses on, I take it -- basically, paralleling what you have for equities with the identification of the market. And I take it at the moment you're moving towards an NBBO not by SEC rule but through the OPRA plan, which would not have identification of the market?

MR. MEYER: Two things. First, although it wouldn't be by SEC rule, as with any amendment of the OPRA plan, it has to be filed with and approved by the Commission. So, it's tantamount to SEC rule without the SEC going through a rule-making procedure. They would have to be on board for what it is that OPRA proposes to do.

The question of market identifier is really unresolved at OPRA today.

MR. SELIGMAN: But at the very least, there seems to be concord on both sides. You want an NBBO.

MR. MEYER: Yes.

MR. SELIGMAN: You want an NBBO not on an individual exchange basis but capturing the whole industry.

MR. MEYER: Correct.

MR. SELIGMAN: And we're really dealing with a detail there.

MR. MEYER: I think that's right.

MR. SELIGMAN: And there are really two details, and one may be more consequential than the other. One detail is how it is adopted. The other is whether or not there would be specific market indicators.

MR. ATKIN: Yeah. I think I just want to maybe add to that that --

MR. SELIGMAN: Okay. And I take it both the equity markets and the -- The manner of adoption is not significant. It's going to be done by the exchanges with the concurrence of the SEC, or it won't be done at all. Mike.

MR. ATKIN: However, it might be significant in that there's currently NBBOs out there for options, and they really want a single official uniform consistent NBBO, and however that would occur is --

MR. SELIGMAN: And that's what we're working toward. Okay. Third point is, basically, kind of a quote mitigation notion. From the perspective of Mike Atkin and the vendors and users, they think a way to reduce quote traffic is, in effect, to suspend or modify the Firm Quote Rule for out of the money and away from the market quotes. Do the exchanges have any view on that one?

MR. MEYER: Yeah. The exchanges have spent a considerable amount of time recently, and it's ongoing, in quote mitigation. There's a separate committee of the exchanges that more or less parallels OPRA but technically is outside of OPRA pursuant to Commission authority.

It's being facilitated by the Options Clearing Corporation, and its sole focus is quote mitigation. Mitigation seems to be very difficult to accomplish, and while mitigation is one of the answers to capacity, I didn't talk about it earlier because, really, system design is by far the first answer to capacity. You have to have a big enough system.

The difficulty with mitigation, I think part came out of Mike Atkin's own presentation because there's a tension between, on the one hand, the folks that Mike talked to saying: "A lot of this data is useless. We don't want it. It's junk," and some of the people that he talked to saying: "We want all the information we can get. We want everything." It's hard to reconcile those two.

When you mitigate, that means that there are certain series that technically are available to be traded, but one way or another current quotes aren't being disseminated. It's possible that someone will want to trade those quotes, so you have a difficult choice. Do they trade blind?

The first trade will initiate quoting. Now it's not a sound series anymore. But how about that first trade? Is it fair to make someone buy or sell an option when he doesn't know -- he or she doesn't know what the current quote is?

So the exchanges have talked about a request for quote system where some of these out of the money, away from the market, distant months be quoted unless someone requests, and then they will be quoted, and then

someone can trade.

The problem is we have some indication that if we went that route there are some people, the ones Mike Atkin talked to who say we want everything, who will just routinely and perhaps even automatically request. So the mitigation won't be effective.

Mitigation is still being pursued. There are profession to mitigation that probably will be implemented and probably will be effective in reducing quotes, but it's very difficult and should not be viewed as the first response to capacity problems, in my opinion.

MR. ATKIN: If I may, my point was that you changed the Firm Quote Rule to mitigate the need for auto quoting for those out of the money and away from the market options. Most of the people we talked to don't really want to tell the exchanges how to do their business and believe that the exchanges are capable of figuring out all the things they need to do to manage capacity.

I think that, hopefully, they could reduce the need for auto quoting for unnecessary information and make sure that the dialogue between what the exchanges are planning and what the industry itself is expecting is sufficient.

MR. SELIGMAN: This will no doubt invite some discussion from the committee after a break, but let me just pose one tentacle question. Is there concord by what we mean by "out of the money"? That is, is it a euphemism, or is it a technical phrase in the industry?

MR. MEYER: Well, of course, any call option where the strike price is higher than the market, any put option where the strike is below, if I've got it correct, is out of the money. The question is by how much is it out of the money, and it's when they are deeply out of the money that there is less interest in these quotes.

I don't know as anyone as defined "deep," but I don't think that would be very difficult to do. If there is a gray area, you'd probably include the gray area until it started to get pretty close to black, and that's where you draw the line. I don't think that's would be a difficult challenge.

MR. SELIGMAN: When Mike Atkin spoke to his vendors and users and they used the concept of out of the money, did they have any thought as to how deeply out of the money they were dealing with?

MR. ATKIN: They did. I would not be able to recreate that discussion. There are certain people who understand options pricing and options trading. I'm not one of them, so I would just not be able to do the that. I have a lot of notes I took on what that means. There are a lot of charts on where out of the money is and where far out of the money is. It's just not really an area that I'm competent enough to speak to.

MR. SELIGMAN: Let me, then, turn your attention to the fourth alternative, which you referred to as split service offerings from OPRA. On the equity side, there was a distinction that was drawn between what is at this point

being referred to as core data -- last sale reports, NBBO -- where there would be a mandate, and, on the other hand, additional data that could be provided by exchange where it would be more kind of free market capacity for customization.

Is that the kind of concept you're suggesting, that your vendors and users were proposing on the options side?

MR. ATKIN: If you mean by "core data" the NBBO and last sale?

MR. SELIGMAN: Yes.

MR. ATKIN: In general, I think that's what people are asking for.

MR. SELIGMAN: And again, it would be the NBBO, though, at the moment for all quotes or quotes within a particular band?

MR. ATKIN: Joe, I just really couldn't tell you. I'm not quite certain. People around this room know a lot more about it than I do.

MR. SELIGMAN: Okay. Mike, do you want to comment at all?

MR. MEYER: Well, I think this is another one of the places where there is a violate agreement. I think this is precisely what we're talking about in creating an NBBO service, that that would be the required minimum call it core, if you will, combined with last sale reports, always combined with last sale reports.

Important for me to utter one more cliche, another horse related one, and that is the you can lead to water, you can lead the horse to water. OPRA imposes its requirements and would, I believe, impose any NBBO core requirement on the vendor only, on the redistributor only and not on the end-user. You've got to make the information available to the end-user, but you can't make him drink. So he can choose to internally filter it, screen it, look at it any way he wants. Under the current OPRA plan and contracts, that's the situation. There's no requirement imposed on the end-user.

MR. ATKIN: Mike, what's the definition of "end-user" versus "vendor"? How about a internal redistributor? Is that --

MR. MEYER: Internal redistribution is an end-user. It's an external redistribution that's a vendor.

MR. SELIGMAN: Mike Atkin, while I know you have six alternatives let me just ask one final question with respect to the fifth. There were possible strategies to prioritize the dissemination of options based on value to end-users, and you listed five separate ones.

Was there any one or two or were there any one or two that seemed to get more support and more interest from your vendors or end-users, or was it a sense that these were just kind of a laundry list of ideas, and none had any particular --

MR. ATKIN: Are you referring to my whole list of six, or are you referring to item No. 5?

MR. SELIGMAN: I'm just focusing on item No. 5.

MR. ATKIN: It was really a single point there, which is the concept of quote by request. And there are lots of things you could quote by request, whether that be out of the money, expiration month, less active options.

What, I'm a little confused in with it's a quote by request managed by vendors or whether it's a quote by request managed by exchanges. I was personally under the impression it was managed by vendors, but I would defer to Mike. He probably knows much more about it than I do.

MR. SELIGMAN: Then Mike Meyer pointed out that some discussion with the options exchanges have had that quote by request, and their basic sense is it might not work for the simple reason that if a single vendor or end-user requested it you'd have to supply all the information across the board.

MR. ATKIN: Well, yeah. But if the mitigation strategy was at the vendor site, then, you know, that's a different issue.

MR. MEYER: First, these criteria, No. 5, are not surprising. These are the very same kinds of criteria that the exchanges have considered if there is to be a quote by request feature. The exchanges considered if there is quote by request where does the quoting stop? That is, at one point, just don't quote at all. The exchanges just wouldn't quote except by request in particular series.

Another alternative would be the exchanges would continue to auto quote in every series and would send those quotes to the processor, but that's where they would stop. The processor would warehouse them and wouldn't send them downstream.

I guess what you're talking about now is still a further approach where the quotes would go down to the vendor, and the vendor could warehouse them except by request. Two points on that.

One is that wouldn't alleviate a vendor of the need to be able to receive the full data stream from the processor, and some vendors seem to want to be relieved of that.

The second is, and this is the area where Mike expressed some difference the views between what I'd said and what he was hearing from the vendors. Vendors are free today to warehouse quotes. Once they take them they're not under any obligation to include certain series, deep outs, away from the markets and what they distribute to their end-users. They can slice it, dice it, filter it any way they want to as long as what they show on a consolidated way from every market to trades to series.

They may not all understand that, and maybe we should be doing a better job than we have in communicating that to vendors, although I'm surprised that they don't understand it, but that's the situation.

MR. SELIGMAN: Let me open it up for the rest of the committee. Do they have questions for Mike Atkin?

MR. PUTNAM: We're talking about deep in the money options here as well as -- in my opinion, the deep in the money options is probably more useless information than an out of the money option is because of a speculator. So deep just as much as out?

MR. MEYER: Either side.

MR. QUICK: But if there's open interest in the deep in the money, then it's relevant.

MR. PUTNAM: Then it's relevant because you've got investors out there who have them. The deeper in the money the more it just becomes a stock, so it doesn't matter.

MR. JOYCE: I think it's important to note that it's -- Ed Joyce -- that the options series that no one has an interest in is sometimes overstated, that phrase. There is a subset of people that want that information, and that's where it gets difficult, to just say we're not sending it out.

And then that relates to at what point in the chain are you solving the capacity problem. If OPRA has to calculate -- or the exchanges have to calculate the information and send it to OPRA and OPRA has to send it to the vendor, so that subset of customers that does want the information and will pay for the information has it available. What you've really done, you have not solved any capacity concern through that alternative at any point in the chain, until you get to the end, where you're sending less data to the people that want less data.

You're not solving it at the exchange end. You're not solving it at OPRA, and you're not solving it at the vendor. You are solving it from the vendor to the customers, if there's a subset of issues, which I'm sure there is a large subset of customers that would be perfectly happy with less data. It's just not everybody.

MR. SELIGMAN: Other questions?

MR. McNELIS: Brian McNelis from Reuters. I think the last couple of comments were really instructive because what we all seem to be agreeing is that, first of all, there is a difference among customers as to what they would like to receive. And second of all, we have the regulatory structure which imposes a one size fits all rule on everyone in the chain, and that seems to be a very great disparity as to what we're doing.

It seems more reasonable to allow the flexibility of the customer to decide what he wants to get and let that solve the problem and go into a more free and open market solution to the issue.

MR. SELIGMAN: Thank you Brian. Are there other questions for Mike Atkin? Andy.

MR. BROOKS: Thanks Joel. Andy Brooks at T. Rowe. I thought Ed Joyce's

comment was really very interesting, and I guess two things come to my mind. One is so many options quotes are theoretical. People use them in a theoretical way, and that subset of the investing crowd is always going to want as much as you can give them, and they will not be appeased or interested in getting less because of the theoretical things that they do with these theoretical quotes, because often things don't trade. I mean, they just don't trade, but people look at relationships.

Secondly, I guess I wonder for those people that have ever owned a way out of the money option or a way deep in the money, less deep in the money but way out of the money option, how do you value it if there's no quote and you get a monthly statement from somebody?

MR. SELIGMAN: Let me, at this point, to, at the risk of using my own cliché, to keep the train on the track, as Brian if he could enrich our discussion with a presentation on the technological issues.

MR. FAUGHNAN: Good morning. I'm Brian Faughnan, And I'm Managing Director at SIAC responsible for planning and development of the national market systems, and I just have a couple of slides here to give you an overview of the OPRA system just in relation to this discussion.

Just from a high level, OPRA is a dual-noded configuration system where we have a node at each of our sites, two sites of SIAC, one in Brooklyn, one in lower Manhattan. The two nodes are connected and used in production simultaneously and connected through a high-speed ATM link.

The five exchange participants send their data half into one node and half into the other node, and our system accounts the data and sends it out based on symbol over the eight IP multicast groups to the data recipients.

So, the data comes in like in the case of CTS and CQS using TCP/IP, it's consolidated, stored, time stamps are applied, records are written to a file, and the data is disseminated out over the high-speed lines with a time stamp using IP multicast similar to CTS and CQS.

Just from the capacity standpoint of the various components, and a lot of this has been touched on already, but just to go through them, basically, as you might expect, from an OPRA perspective the number of CPUs required to support the transaction rates are much greater, and those CPUs are also of a higher power, higher level CPUs that are used in OPRA.

The process or capacity again, as mentioned, 24,000 compared to the 1,000 and 1,500 for CT and CQ. Number of participants, again, five and nine for CTA. TCP/IP inputs, as would be expected, there would be more inputs for the OPRA data coming in from the exchanges. There's currently eight logical inputs from each of the five options exchanges.

Input capacity again was mentioned. This is from a throttling perspective on the input side. We have a process or capacity. We have throttling on the input side, and we have pacing output side.

The IP multicast outputs we have eight, as mentioned already, compared to the four and five for CTS and CQS. The IP multicast capacity is based on

the data recipient connection. We were working on T-1s for CT, CQ and OPRA for a while, and when we increased message for second rate based on OPRA's projections that are given to SIAC, and we're directed to upgrade our systems, we ask the data recipient to come in with T-3s at that point, and the capacity on the T-3 is in the level of 50,000 messages per second, while still supporting CTS and CQS over those feeds.

Data recipients, at the latest count, approximately 50 for OPRA, 86 and 83 for CTS and CQS, and again, the message per second peaks on a one-minute average basis, 70/18 for OPRA as compared to 226 and 509 for CTS and CQS.

He also have threads that run through the system that support the number of messages per second that can be handled over each of the OPRA eight high-speed lines. There's a smaller thread, so there's two levels that have to be determined when looking at capacity, not only the overall system capacity, but what are the messages per second rates that can be supported on any one of those eight output threads based on breakout situations, or what have you.

And also, transaction files, needless to say, have to be big enough to support 50,000 messages per second over some extended period of time. So the transaction files and disk space required are enormous.

Moving to the technological considerations, the same considerations apply to OPRA as they do to CTS and CQS with the following exceptions:

As far as sequencing of information, trades and quotes are consolidated through OPRA as one system right now; whereas, obviously, we have trades going at the CTS and quotes going at the CQS for the equity side.

Other differences are the lack of databases and calculations occurring in OPRA. At this point, OPRA consolidates the data, logs the data and disseminates it out over the high-speed lines, there are no databases or calculations being performed on the data.

That carries over into the validation tolerances in that there is minimum message validation other than verifying that, yes, the category and types of the messages on the input side are alphabetic as opposed to numeric, but there is no price tolerance validation as there is no database to compare them against.

From a capacity standpoint, it can't be emphasized enough extremely high transactions rates that the system needs to support going to 38,000 in September. The major challenge there is not just, obviously, receiving a direction from the OPRA committee to build a system to support 38,000 messages per second. It's the movement of all the components of the industry to be in position to support that message rate before it can be used.

I'll answer any questions if I can.

MR. SELIGMAN: Mike Atkin.

MR. ATKIN: Did I interpret that slide correctly that the T-3 requirement is in place when you move to 50,000 messages per second? Right now you're currently doing T-1 in requirements for the --

MR. FAUGHNAN: All of the OPRA data recipients are on T-3s now. So the connection supports a bandwidth of 50,000 messages per second for OPRA while also supporting CTS and CQS data.

MR. ATKIN: And then downstream from the vendor to the firm would also then require a T-3?

MR. FAUGHNAN: If it was required to send 50,000 or 38,000 messages per second from the vendor to the user, you will require a T-3.

MR. SELIGMAN: Let me pose a question simultaneous with Brian and Mike Atkins. Brian made the point that the capacity, in terms of messages per second, would be moving up to 38,000 in September, but for that to be effective, you have to have the vendors and end-users able to handle that magnitude.

Do you have a sense as to when the vendors and end-users are likely to be able to handle out of the 24,000 now or the 38,000?

MR. ATKIN: They're all doing it now. They're all investing heavily to meet that capacity. A couple of vendors are putting it in the range of \$15- and \$18 million to get there. So they're in the process of doing it.

MR. SELIGMAN: Other questions for Brian? Brian McNelis.

MR. McNELIS: Brian McNelis, Reuters. Brian, if the T-3s weren't available and it all had to go on T-1s, do you know at 50,000 messages how many T-1s would be required?

MR. FAUGHNAN: There's approximately -- this is testing my math skills here. Twenty-five T-1s are supported by a T-3. So it's approximately 1.3 megabytes of data per second can be sent down a T-1 line. On a T-3 line respect it's in the 40 megabytes per second range.

MR. McNELIS: And what's the bandwidth requirement of 50,000 messages?

MR. FAUGHNAN: I'm not sure off the top of my head, but I believe it's 29 megabytes per second.

MR. McNELIS: So you would need somewhere in the range of 20-some plus T-1s to deliver the data?

MR. FAUGHNAN: Yes. One of the issues with that is you can't subscribe for a part of an IP multicast group over a T-1. So it would be based on how you set up your network and how you're actually handling the bandwidth.

In your network, all these T-1s look like one big pipe for the data to go down, or, if you're treating them all as individuals, then you could send one down one, another down the other, but then you run out at eight. So it's

more of a matter of your network configuration, but yes, you would need that kind of bandwidth.

MR. SELIGMAN: Do we have other questions for Brian?

(No response.)

MR. SELIGMAN: Okay. Brian, thank you very much.

MR. FAUGHNAN: You're very welcome.

MR. SELIGMAN: We appreciate the written presentation as well as the oral. We've got a lot to cover. Let us just take exactly -- I guess we said we would take a 15-minute break. But this time, for the first time, we really mean it. When 11 o'clock arrives, I'll be starting the meeting again. They haven't given me a gavel, but a figurative gavel will come down, and we'll go, and we'll cover, obviously, a lot of ground.

Let me, just by way of touching on one other aspect of our process, at the end of our discussions today, besides inviting the public for questions and comments I'll then talk a few minutes about where we go from here. So until 11:00.

(A brief recess was taken.)

MR. SELIGMAN: Let me begin our discussion. There are, in the agenda, essentially, four issues we wanted to focus on. The first is the most general, and you may want to anticipate as we go through this more precise questions that come later.

It's framed in terms of transparency. I view it really in somewhat more precise terms. The question with respect to the options markets is a combination of transparency and capacity, and it's capacity which means it gets special treatment in our process and has received special treatment from the SEC historically.

My instinct based upon comments that have been made today and earlier is, in theory, the same kind of enthusiasm that there existed for transparency in the equity markets exist, but the question is to what extent does this general presence have to be -- make allowances for the capacity realities in the options market.

And it's in that sense I'd ask you to take a look at the first question. The real issue, it seems to me, is at the moment you have a system where vast volume of quote traffic is circulated out. Is that system inevitable, or are there recommendations this group would like to make to try to reduce the amount of message traffic either going into OPRA or going out?

And that framed, let me throw it open for discussion. After maybe about 20, 30 minutes, I'll ask you maybe individually to express views as we did on the equity side. Should we have, in effect, pretty much the world we have now in terms of options quote traffic, or is there a better world that someone would like to propound as would be appropriate for this group to recommend?

MR. JOYCE: This is Ed Joyce. I'll start out. My view is that transparency is necessary and that if the current world means continuous quoting and consolidated last sales, adding onto the NBBO, which I agree and I think all the exchanges agree with, I think that is the world that is necessary to maintain the transparency.

It gets difficult when you start evaluating the quote mitigation strategies. I think we should continue to focus on quote mitigation, but I don't think the entire structure should be changed.

The secondary I get concerned about when we focus on primary market, I mean, there were many years that I would have been very happy to have people just send out the primary market, because CBOE was the primary market. But in options, it's not as obvious.

It's a class-by-class issue, and to say that you'll send out the primary market, I think it has a whole different meanings in the options world, and therefore, I believe that we have to continue generally with the current format, and we can do better on mitigation.

MR. SELIGMAN: Ed, let me pose one follow-up for you. Should there be less transparency for less actively traded options or for out of the money options, however that's ultimately define?

MR. JOYCE: I've been in many of the -- I put that in the category of the quote mitigation discussions, and I've been in many of those. And while I think we have to stay with that, I get concerned when we talked about less transparency. If it translates into not displaying a current quote, I'm really not in support of it.

I have a difficult time envisioning the world where an RFQ world works. I think you'd have to redo the entire information processing system to live in that world. You may as well not have those products, in my mind, because one of two things are going to happen; either automatically people are going to request for quote to keep the quote live, or it's going to be invisible.

The option trading, in many ways, is driven by the quote. The quote is what -- it was referred to as theoretical, and I think you right on, but it's that theoretical price that people are evaluating versus their view of the value or their theoretical model that's generating the trade.

So without a price you may as well not have those products listed at all, as far as I'm concerned, and I think you'll get resistance from firms and exchanges to just eliminating products.

MR. SELIGMAN: So from your view, the world you'd be most intrigued to see -- or most pleased to see, I guess, is a better way to put it, would be a world in a sense with a similar universe of quotes we have now but an NBBO?

MR. JOYCE: Yes, a similar universe with a more aggressive and continued focus on quote mitigation, but it wouldn't be good to the degree where you'd just wipe out the quotes. And it sounds like, given the earlier

comments, that there should be more involvement of the vendors in that process, but generally I would agree with the way you characterized it.

MR. D. JOHNSON: This is Dave Johnson. But what about RFQ? Are you in favor of the RFQs?

MR. JOYCE: No, I'm not.

MR. SELIGMAN: Dave, what about you?

MR. D. JOHNSON: I am. I think it addresses the capacity issue, and I believe Mike Atkin, in his survey, is consistent with much of the Street, be it firms like ours is that much of the information is not necessary at that moment.

I think it ultimately has to be necessary during the day and after the day for pricing and settlement, and what not, but during the day I think RFQs would a lot of issues.

MR. SELIGMAN: How do you deal, Dave, with the concern that Mike Meyer expressed to the effect that if you had an RFQ there would be some vendors or end-users that would just, basically, instantly request everything on an ongoing basis?

MR. D. JOHNSON: I don't know who those people would be, but again -- I would disagree with that. I don't think it would be an -- an RFQ is not on an ongoing basis, so I would disagree with that. I think that people would not be -- again, with the parameters that we have, out of the money, even in the money, open interest, that mitigates the necessity for the RFQ.

MR. SELIGMAN: Okay. Jerry Putnam.

MR. PUTNAM: I hate to say this when we're talking about lowering fees, but you could charge for the RFQ, and if someone really wanted it, they could pay for it. It's kind of like the allocation process or the short-term capacity fix now by way of allocating quotes. You could charge for it.

MR. SELIGMAN: Let me go back to both Ed and Dave for a second. In terms of quote mitigation strategies, are there specific ones you have in mind? Ed, let's start with you.

MR. JOYCE: There's none that we haven't beaten to death in the exchange meetings. I think probably the most effective has been desensitizing the auto quote systems so that they're not flickering, and that's done on an exchange basis. That's done independently.

At CBOE, we have implemented a desensitizing approach so that when have you a less active option that it doesn't necessarily have to tick on every penny movement of the stock. But I think that kind of thing and delisting options series I think the exchanges have to be aggressive as taking product on that isn't going to trade, whether it be series within a class or inactive option classes.

I think we should be aggressive at taking product on, but once we make

the determination that the product is going to be up there should be transparency and continuous quoting.

MR. SELIGMAN: And Dave, from your point of view, are there specific mitigation strategies you have in mind?

MR. D. JOHNSON: Yes. I agree with Ed. There's probably a list of at least five that all the exchanges have addressed over and over again. The SRI study addressed it, that's probably a year and a half ago now. Anything that the exchanges have addressed I would be in favor of.

But in particular, as Ed said, aggressive listing for competitive reasons, but I am also very much in favor of aggressive delisting even if this multiple listing environment. There are primary exchanges that trade primary stock in a multiply-listed issue, and I believe that the exchanges should be aggressive in delisting the issues that are costly both to them and costly to the industry.

Once again, I'm in favor of the RFQ position. Those are the two I think that we can address right away. But again, it has been beaten through many a time and many different studies and in dialogue between the exchanges. I would like to endorse what the exchanges have done and continue to work along those lines.

MR. SELIGMAN: Thank you. I think I saw Mike Simon next, and then I'd like to pick up Charlie Rogers and maybe Peter Quick, if I could.

MR. SIMON: We at the ISE totally support the RFQ --

MR. D. JOHNSON: I can't really hear.

MR. SIMON: I'm sorry. Is this better? The more the option is in the money the more it quotes and the less it trades, so you have sort of an escalating inefficiency. In the two or three years that we've been looking at quote mitigation, the only quote mitigation strategy that gives you any bang for a buck is the cabinet or the RFQ.

The delisting gives you a little bit, but as it turns out the options that trade the least, the classes that you would delist, also quote the least. So while you're removing product and you're removing options for individuals to trade, you're not doing very much on the quote side.

The only way we've seen any bang for the buck is moving to an RFQ. For even the very active classes have very inactive series. Even the AOLs and the Ciscos that are very deep in the money don't trade but generate an enormous amount of quotes.

The way that we've dealt with the issue on the exchange side in our committee about preventing a simple request for a quote from opening it up is saying that a series would not open up for quoting until there has been a trade, effectively looking at each series as an individual opening for the day. So if something trades for its first time at 2 o'clock in the afternoon, that's when it would begin quoting. And there's, obviously, a concern that for that first trade there's a paucity of information, but since

most of the options pricing is theoretical people have theoretical prices for that option, and it's not that much different than beginning the trading and the beginning of the quoting at 9:30 in the morning than at 2 o'clock.

So we think that's one way to address it, that there would actually have to be a trade before an option quoting.

I just want to quickly respond to something Mike Atkin said before about one way to address it is to, perhaps, modify or repeal the Firm Quote Rule for all these series. And I'd just point out that up until April 1st the Firm Quote Rule didn't apply to options, and it's not the Firm Quote Rule that has led to this generation of quotations.

What has led to the quotations is competitive pressures. We at the ISE may prefer not to put out quotes for the deep in the money, but we have no choice but to if our competitors are. If our competitors have it there and we're going out and marketing ourselves to order flow providers, they may say, "well, once every two weeks we may have an order on one of these deep in the money, and if you didn't have a quote we're going to send it to the market that does have a quote, and we're going to turn our switch on to the market that we're going to send it to." And therefore, we're competitively disadvantaged.

No exchange unilaterally can stop quoting or go to an RFQ system. It has got to be done on a uniform basis, and it has to be done under the leadership of the Commission, because otherwise none of the exchanges is going to alone take the initiative here.

MR. SELIGMAN: Before I get back to Joel, I wanted to pick up the other two options exchanges. I think Charles Rogers had his hand up.

MR. ROGERS: Thank you. Charlie Rogers from the Philadelphia. I was actually going to raise two points. Michael covered the first one quite eloquent. I did want to circle back to what Ed Joyce said, one of the items he brought up. And I will apologize in advance for the cliche, but yes, we have beat a lot of dead horses here. One of the things that Ed mentioned that I found very interesting was the desensitizing of quotations.

Even if all the exchanges could get in a room and discuss desensitizing quotations, it would lend itself to uniformity across the board as to how much you would desensitize them, and then they would never be in sync as to who was going to make the first change.

What that lends itself to is the disparities in the market, which may be only for a second, which leads to electronic arbitrage, which really forces a lot of the exchanges, a lot of our specialists -- DPMs, LMMs, and so on -- to quote very, very quickly very often to make sure that the markets are not out of line so you're going to get picked off by electronic arbitrage.

MR. SELIGMAN: Appreciate that. Peter.

MR. QUICK: Former Chairman Levitt actually convened the heads of exchanges back last fall to talk about quote mitigation, and Paul Stevens from OCC was leading that effort in terms of mastering those folks.

And the AMEX has been very interested in quote mitigation. We actually had a board vote that would eliminate out of the money, 4th expiration month options, but that did not meet with approval from the rest of the industry in terms of getting things that aren't really quoted out of the picture.

As far as cabinet trading goes, we're very much in favor of that, in the quote per request in that respect for out of the money, deep out of the money options.

For the National Best Bid or Offer, actually, the options exchanges currently stand at four for it and four against it without designators showing which exchange actually has the best quote. And the reasons for that is because it's not an order routing. It's really more of a retail or public dissemination. Those people aren't making the decisions on where to route the order.

MR. SELIGMAN: Peter, can I just interrupt for one second? What you're saying is the options exchanges favor the NBBO, but on the issue as to whether or not there would be market identifiers there is a split?

MR. QUICK: 4 to 1 for eliminating.

MR. McNELIS: You said 4 to 4.

MR. QUICK: 4 to 1. I'm sorry.

MR. SELIGMAN: Okay. Now, when you say 4 to 1, it is 4 in favor of market identifiers or 4 opposed to market identifiers?

MR. QUICK: Four opposed to market identifiers.

MR. SELIGMAN: And the reason for the opposition, as you understand it?

MR. QUICK: I would have to have that exchange speak for themselves.

MR. MEYER: I could try and just, kind of, objectively state those who are opposed to a market identifier I think believe first, at Peter just said, that for those who would use an NBBO service a market identifier isn't critical because those are the customers who don't make the order routing decision.

It's the broker that makes the order routing decision, and he or she would see the full service that would have market identifier. If there were a market identifier, there's some risk that an exchange might want to be identified as the NBBO and therefore could increase the size by one contract to become the identified NBBO, which would have a counter-mitigating effect. You'd have more quotes than you otherwise would if that kind of game were played.

MR. SELIGMAN: As I understand this, though, excuse me if I sound a little bit crude in this, that normally would you viewed as aggressive competitive behavior, which we normally like, but the reason for the hesitation is because of capacity concerns?

MR. MEYER: The combination of a negative impact on capacity, if there were that kind of aggressive competitive behavior that we normally like, and the fact that this wouldn't preclude -- indeed, the exchanges would be expected to continue to aggressively compete in their quotes and would be identified in terms of price and size in the full data stream, which goes to those persons that are responsible for making order routing decisions, and that's where the competition is meaningful.

MR. SELIGMAN: Peter, I interrupted you. Sorry.

MR. QUICK: With regard to the cabinet trading, the only downside to that is a lack of transparency for the inactive series, and that would be a result that would be negative for that. But we think the quote mitigation benefits outweigh that fault.

MR. SELIGMAN: Let me turn to Joel Greenberg, and then I'll come to Andy.

MR. GREENBERG: Thank you. Just for point of clarification, Susquehanna, I guess, is the largest market maker in the options world today, so obviously these issues are important to us.

I want to touch on a few point, one that Charlie just made in terms of the electronic arbitrages. That is a large driver of the need for a very fast auto quote, and auto quote is throwing out a tremendous amount of changes every second.

We have a couple of ideas about that. One is that many of those people who are arbitraging actually are, I would say, professionals of broker dealers masquerading as customers. So when the order comes down to the exchange we have to stand firm on our guarantees.

If the SEC were more aggressive in making those become broker dealers and not requiring us to stand up to our order flow quotes, as professionals, that would go a long way towards mitigating some of the quote issues.

Secondly, a proposal that some of the exchanges, particularly the CBOE, has suggested a variable raise so that we can decide for which order flow providers we want to increase our guarantees. So if a hundred lot comes down from one firm, we can decide we may want to be a hundred up to that firm; whereas, a firm that has a tremendous number of professional customers we would only have to be ten up.

Again, anything that you could do to mitigate the requirements of the specialist to be firm to professional customers will decrease our need to throw out a tremendous number of quotes so we're not continually getting picked off.

Second point I want to make, in terms of the NBBO, until we can see that there's an effective linkage in place we would be against an NBBO or an official NBBO, because what happens, basically, we'd be obligated to an away market, and we'd have no way of clearing that away market.

So I don't think that anything should be put into place that would broadcast an official NBBO without an effective linkage that's more than theoretical,

that we actually see as operating in practice, because, again, that would cost the specialist community and market making community a tremendous amount of money and ultimately the public, because the quotes have to be widened out to take into account the amount of money you'd be losing to the professional traders.

The third point I would want to make, given the quote issue we have, quote traffic issue we have, we would be in favor of letting the vendors decide what they want to give to which customers. I would cut it off at the point where the information would be available, but if a Reuters only wanted to send out the at the money quotes, let them decide what they want to do.

I wouldn't make a requirement that every exchange's quotes in every series would have to be broadcast to the world. I know that's different than it is right now. I think that given the amount of quote traffic -- we're not optimistic that the quote traffic is going to be mitigated any time soon -- I would let every vendor and let the marketplace decide by customer which vendor they want to use.

MR. SELIGMAN: Appreciate that. I think, hi, Andy next.

MR. BROOKS: Thank you. Just a couple observations, if I can. I think we absolutely have to have an NBBO. Joel, to your point, it needs to have access, and it needs to be linked. No doubt about that, it seems to me. That's a premise of any fair and orderly market.

We also need to know who is generating these bids and offer and the moniker of which exchange or which market center is doing it I think is entirely appropriate, and customers automatic to know who has got the best bid and offer because it's not always clear to them that their brokers are routing it to a place that might be better.

It's pretty hard to see that on a confirm. You've got to turn to the back. It's in small print. I think it ought to be right out there displayed.

And I think reported trades are important with this NBBO. You want to be able to see what's traded at what price. All that is part of a full display of trying to understand what the current market is.

Certainly, it seems to me, that we ought to discontinue options where there is no open interest and no volume after a certain time frame. Reiterating a couple points made earlier, I think the exchanges have been incredibly aggressive about listing new series because that means new business for them, and they've probably been very lackadaisical about delisting anything.

To Mike's memo, I think he said 60 percent of the traffic volume comes from zero open interest and zero volume quotes, so it seems to me that would be a real easy way to bring things down in a heartbeat, if I'm understanding it correctly.

And then I guess the other thing I would urge us to think about as we think about the future, Joel and I were talking during the break, you know, you wouldn't want to do anything that would constrain innovation and

improvements to markets.

And in that vein, it seems to me that at some point the options market might move more towards where the Nasdaq market has come towards, and that is more towards an order- driven market and less towards a quote-driven market and what does that mean, because I think that has had tremendous impact on the Nasdaq market.

MR. SELIGMAN: Bill and then Brian.

MR. HARTS: I think that when you start talking about disseminating an NBBO without strong linkage you could be asking for a lot of trouble. This is something that we've learned in the equity markets over the last 15 years or so.

I specifically wanted to address something about the exchange identifiers. Looking at the equity market, the problem that, apparently, people are worried about hasn't really happened. You don't typically see a regional exchange increasing its size over the primary exchange, and there are good reasons for that.

First of all, the routing decisions are generally understood because of the linkage system that you will get, at the very least, the NBBO regardless of which exchange you send an equity order to, a cash equity order to. If he had that type of linkage in the options world, I think it would be, essentially, the same result.

The other thing is that if an exchange did try to do that or a particular specialist or DPM did try to do the that, they would also be at risk of having to honor those quotes, and that could get very expensive very quickly.

MR. SELIGMAN: And then I think I had Brian.

MR. McNELIS: Speaking from the vendor viewpoint and not understanding the intricacies of trading practices, one of the things that we have looked at in terms of an NBBO is to try to determine what its impact would be on traffic levels.

And I know SIAC has not yet had a chance to make that kind of study, and I don't know if anybody else has, but we did some preliminary work where we found that at market open the rate of quote change that would either set the NBBO, change the NBBO could be as much as 80 percent of market quotes.

Now, the interesting impact of that is that if you're talking about an NBBO where you also have to relate the exchange identifier information and, of course, now size, that the message for that quote is considerably larger than the kinds of messages we have now for individual exchanges.

So the net result could be, and this would also have to be investigated empirically once you got things going, is that the actual bandwidth required to transmit an NBBO only would be larger than sending the stream of quotes. So interesting issue.

One further thought I had. I believe Mark Tellini made some comments in May concerning equities, and I'm not sure how much that would apply to options, but he was commenting that an NBBO may be, in some ways, disinformation to certain customers, that it relates, perhaps, the ability to do a trade at small size but not carry the real cost when the full size is then obtained at another marketplace because the inside market only had a small size.

So I guess there is some sentiment among some of the panel members that an NBBO is really not that beneficial as far as customers are concerned.

MR. SELIGMAN: Let me at this time particularize issues since we're trying to complete today's session by 1:00. If we can't, we won't. I'm going to frame some very specific conclusions and ask you to speak relatively briskly to them.

The first conclusion, based on the discussion earlier today I take it no one on this committee would favor now going to penny increments.

MR. D. JOHNSON: Agreed.

MR. SELIGMAN: And I guess maybe to frame this, and with risk of a double negative, does anyone disagree with that proposition? So we really do have unanimity? Nobody wants any increments at this time. Okay.

MR. COLBY: Since I was baited by Mike, do you want to formulate that just in terms about capacity, or is it a larger decision about penny increments.

MR. SELIGMAN: I did not characterize it either way, but I did use the magical three words "at this time." And I think in terms of the conclusions that we would reach in late August or early September. Do you want to make an observation with respect to the distinction you've raised?

MR. COLBY: Well, if you analogize from the equity markets and what the consequences have been with respect to pennies, spreads have narrowed. Effective spreads have narrowed, and order flow seems to be reduced. And to the extent that those things have been criticized in the options markets, thinking about whether pennies add value in that.

MR. SELIGMAN: Perhaps the report should reflect that we have having this discussion at a time when there has been considerable concern with respect to option capacity. And obviously, it's not a conclusion that's to be binding forever.

MR. SELIGMAN: Point two. Let's focus on the NBBO. There are really three separate issues here, as I see them. Number one, should we move to an NBBO for all options exchanges? Number two, should that movement only occur when there's effective linkages? And this is a point that I think both Joel and Bill raised. And it's my understanding that at least a more permanent form of linkage plan is anticipated to be effective by next spring. And number three, if you adopt or if we recommend an NBBO either before or when there are effective linkages, should there be market identifiers?

I think those are the issues that have surfaced through written submissions and discussions to this point. I'd like to go around the room on this one. I think it's very important for the purposes of our transcription that we be really clear who is speaking, but let's start with Mike Atkin and ask his views on those points.

MR. ATKIN: I would agree with all three statements, and I would add to that size. I think we also heard based on orders.

MR. SELIGMAN: Let me be real clear. You agree there should be an NBBO. You would agree it should become effective only when there are effective linkages or before?

MR. ATKIN: With effective linkages.

MR. SELIGMAN: With effective linkages, you would want market identifiers; you'd want size. Okay. Rich Bernard.

MR. BERNARD: My present inclination is to abstain because there's a lot of complexity here that I haven't been part of for a long time, but I would say that keeping in mind that the reason for regulatory intervention has to be protecting somebody who needs protection there is a place for a Display Rule here, although I don't know it has to be an SEC Display Rule, if the options exchanges can get to that through a plan.

I'm a little concerned about the linkage discussion. As you know, in the equities market, our view is that you don't need to have those kind of linkages that we've been traditional talking about, and what you're really talking about is the ability of a specialist in one market or a trader or an upstairs person to get to all the markets by however they can, and that can be done through the market or a routing mechanism. So with the caveat that there has to be a way to get and not necessarily a hubs and spokes, then we'd be fine with the idea that a linkage has got to be part of this. And thirdly, I think you've got to end up with market IDs to do this right.

MR. SELIGMAN: And how do you feel about Mike Atkin's point about size?

MR. BERNARD: Yes, size as well.

MR. SELIGMAN: It's really four. Andy.

MR. BROOKS: I would say that we need an NBBO, and we can only have it really when we have linkages and access. I think we ought to have market identifiers. I think it ought to include size, and I think it ought to include a time and price priority to it as well.

MR. SELIGMAN: Okay.

MR. BROOKS: And so I'm adding a fifth, if I can.

MR. SELIGMAN: Phillip.

MR. DEFEO: I have to agree with the NBBO. I think we should move toward

an NBBO. I think it ought to include size. I think there ought to be a way to get at the NBBO, and linkage is that way.

I am of the opinion that we ought to have a market identifier because I do believe it encourages competitive quoting, and it gives direction to those who want to try to get bids and offers.

MR. SELIGMAN: And how do you feel about time and price priority?

MR. DEFEO: Well, I've never had much of an opinion on that.

MR. SELIGMAN: I think maybe giving deference to the charge of the committee and what's realistic, let me withdraw that question.

MR. DEFEO: Okay. Thank you.

MR. SELIGMAN: Some day you can tell me your opinion, however.

MR. DORSEY: Mike Dorsey, Knight Trading Group. You might have to help me with all the questions, but I think we would agree with an NBBO. In the equities markets, it's of not much use, but it is of use for the new Rule 1-5, and we would expect the options exchanges or the options trading to be subject to that rule.

I don't know why it would be crucial to have linkages but that's because we have access to all the markets now. So it may not be so much our issue on that. Would love to see size, yes. I think a quote is not just a function of price. It's a function of both price and size, and size -- gotten the respect it deserves, and we're seeing that.

Market identifiers. I'm not so sure why it's overly crucial to have an identifier now. If somebody could tell me why, then maybe I'll join in that with a yes.

MR. SELIGMAN: So in essence, with respect to identifiers, you, basically, don't have an opinion?

MR. DORSEY: We'll abstain from any opinion.

MR. SELIGMAN: Brian.

MR. McNELIS: In terms of some of the issues that we'll be discussing perhaps a little bit later concerning competing consolidators, our view is that an NBBO puts restraints on the ability of people to effectively make a business of that. So we would actually be opposed to an NBBO.

But if indeed there was an NBBO, we would certainly want it to be calculated centrally by OPRA, or whoever the plan group is. We'd love size and price priority.

MR. SELIGMAN: How do you feel about market identifiers and size?

MR. McNELIS: I'd say if the market really feels they need those things,

that's fine with us, but they do add to the size of the message, and if that is an issue, if part of this is to address capacity, it's a consideration. I really have no opinion on that.

MR. SELIGMAN: Thank you, Brian. Joel.

MR. GREENBERG: In terms of the NBBO, again, we'd be in favor of that if there was effective linkage. I disagree with Michael Dorsey from Knight that right now the specialists and market makers don't have effective access to the away markets because there's not effective linkage where you could actually timely access a competing specialist market.

I would also add with that before there would be an NBBO, again, just the way the systems work, I would want that to be only if there were effective tools given to the exchanges to deal with the vast numbers of professional traders out there masquerading as customers.

In terms of market identifier, I really would need to know more about the technological as you say regarding how much capacity that would take up versus not having it out there.

MR. SELIGMAN: Just to follow up on a couple of statements you made, Joel, in terms of linkage, one of the earlier respondents said, in effect, you don't need it because you've got access, which is somewhat like the temporary or interim SEC approach. What's your view on that?

MR. GREENBERG: Are you talking about right now?

MR. SELIGMAN: Right now.

MR. GREENBERG: Right now you don't have access because there's no way for a specialist on any of the options exchanges to immediately or in a timely enough fashion to access the away market. The systems don't allow you to get there fast enough.

I can go into a long boring dialogue as to why that is, but there really is no effective technology right now if it were on any of the exchange or on all the exchanges for us to quickly access an away market so we can give the report back to the order flow provider that we actually were able to clear the away market.

The time can be anywhere from five to ten minutes to get a report back from a competing options exchange that you want to clear the away market. That's mainly, for most part, you have to go out and use brokers to clear the away market.

MR. SELIGMAN: Okay. Bill.

MR. HARTS: Bill Harts from Salomon Smith Barney. Joel actually made a lot of the points I was going to, but I'll just quickly reiterate them. Yes, there should be a NBBO. We hoped that the Commission would mandate an NBBO when they lifted or influenced the multiple listing process, but that didn't happen.

At the very least, we think it will make things simpler for our clients, and certainly from the standpoint of best execution obligations we think it will help us. We really do have to do it concurrently with a strong linkage system.

Just to amplify what Joel said, what makes a linkage system like ITS work or not work is not the technology -- and everyone has their opinions about ITS's technology -- it's the rules. And the rules, for options market linkage, are not really cast yet, and we don't know if they're going to work.

And as Joel points out, there is this, sort of, two-tiered system between professionals and non-professionals and what they can access and how quickly they can access between markets. I know we're, sort of, crossing this fine line here between market data issues and market structure issues, but this is one of those places where they really do intersect.

As far as market IDs, I think it's important because it mitigates or it should mitigate some of the free- riding that does come along with linkage, because when do you have markets that are linked, as they are in the cash market, there is some free-riding on quotes or markets between different exchanges.

I think that if an exchange, or DPM in this case, with say, "Well, that's my quote. That's my market in size," I think he or she will be able to attract order flow because of it. So I think the market IDs are important as part of the NBBO. Size, obviously very important. Price is somewhat irrelevant without size in an NBBO calculation.

MR. SELIGMAN: Thank, Bill. Simon.

MR. S. JOHNSON: Simon Johnson. I would support the NBBO as previously discussed, including size. I think what Bill said is exactly right. I think if you mandate the NBBO, then that's going to get everybody very focused on what exactly you need to make the linkages work. I suspect that it is about rules and making the rules effective, but I think if you see an NBBO coming, those who are in the market will tell the SEC what they need and tell the markets what they need. I think that will happen.

And I think there should be mark identifiers because I don't understand the point -- I don't think there's any general case to be made for making information available without saying where this information is coming from, where the prices are coming from. I think that tends to be misleading and confusing, and I'm sure it can lead to various problems such as free-riding.

MR. SELIGMAN: Ed.

MR. JOYCE: Ed Joyce. I am for an NBBO, and I like the idea of tying it to linkage. I'd like to comment on the issue of whether an exchange identifier should be included, because the most obvious answer is of course it should.

And I guess you have to go back to the objective of why you're going to an NBBO. If you're going to an NBBO as a method of solving a capacity concern in market data, then you should be careful to not structure the NBBO in such a way that it doesn't address any of the capacity concerns.

I think if you're going to an NBBO as a market structure issue, it's a different issue. The NBBO that was addressed in OPRA and that came about to this 4-1 vote to not have an identifier was focusing on an option information capacity concern.

And the reason I think it is a factor is in addition to the possibility of just playing the games with up-ticking the size that every time a size changes on any exchange that's an additional message and a large message at that. So that I just think that we should do some analysis before we go to the quick and obvious answer of course it should have an identifier before we determine to build a system that has more capacity concerns than the one we are trying to sell.

So I would go without the identifier until I had the analysis that showed me that it could solve our problem with the identifier.

MR. SELIGMAN: Ed, what about size?

MR. JOYCE: I think size is important. I think size is a good piece of information.

MR. SELIGMAN: Appreciate that. Rick.

MR. KETCHUM: Rick Ketchum. I first echo Rich Bernard's point that while I can't restrain not saying something I do think the committee should weigh market participants and markets who are actively involved in the market more than those of us who will have, at least, not been regularly involved in it.

Within that context I see no difference or no reason to take a different position than we've consistently taken. There should be a National Best Bid and Offer for any actively traded product. In reference to Ed's point, I don't know how to think about an NBBO without thinking about it as a manner to evaluate a quality of execution, so it should have size, and it should have market identifiers.

I think there should be, with respect to folks more knowledgeable than I, an evaluation whether there's efficient access. It seems to me that tying that to a direct linkage is maybe mistaken, and I think that probably the best way to determine whether there's efficient access is to see whether people are guaranteeing executions off the NBBO.

If they are, then that probably means it's important and probably means that it ought to be out there. If they're not guaranteeing it off the NBBO, then perhaps there isn't efficient access.

MR. SELIGMAN: Thank you, Rick. Don.

MR. LANGEVOORT: I'm a complete newcomer to this conversation, so perhaps my remarks should be preceded by "for what it's worth." But with that in mind, my intuition is very much the same as Rick's that an NBBO on market structure basis makes a great deal of sense. A market identifier makes a great deal of sense. Size indication makes sense, and so I would go in that direction.

MR. SELIGMAN: Thanks, Don. Bernie.

MR. MADOFF: Bernie Madoff from Madoff Securities. I would be in favor of all four of the point with special emphasis on the issue that Bill Harts brought up that when you discuss linkages it has to be an effect linkage that gets you access, which is what Joel was, I think, alluding to.

A linkage unto itself would not be acceptable. What kind of linkage, again, is not important as long as you have access, which I think is what Rich Bernard was addressing.

As to the market identifiers, that's one of the four things that I'm in favor of, but I would just like to add that in the past -- and I'm not suggesting that this is what the problem with the people that are objecting to it -- in the past, when we dealt with this issue in the equity markets, the objection to the market identifier was, basically, a competitive issue.

At that time, originally, and it was in some sort of a change of opinion, the primary markets objected to the fact that the regional exchanges and the Nasdaq marketplace was getting what they deemed to be free advertising on the issues. I don't know that that's a relevant issue. I don't know that it's true.

But I'm saying when you address the identifier issue you want to drill down into what are the real issues. Is it capacity, as is being suggested, or is it a competitive issue, and then make an educated determination.

MR. SELIGMAN: Thank you, Bernie. Gerry.

MR. PUTNAM: Move to an NBBO. I mean, I think broker dealer best execution obligations makes an NBBO a pretty convenient thing to have. As far as linkage, I'm on the New York Stock Exchange side here. I think that linkage is great, but I'd like to see it develop competitively.

And what I'm saying is that rather than having a central authority provide the linkage, a requirement that exchanges provided access to their marketplace, and then let the linkages develop on their own but that an exchange could not shut off a competing exchange from using a linkage but that the linkage itself should develop on its own.

As far as a market identifier goes, I mean, a market identifier is a great thing. If you're going to have an NBBO and you want to route your order to the market with the best price knowing what that market is with this linkage I'm suggesting, that would be great to know where that happens to be.

To one of Joel's points, and this sounds like I'm criticizing something that you're concerned with, which is being picked off by a professional that disguises themselves as a retail customer, that's a great way for this linkage to develop, meaning that if you're concerned about getting to another marketplace and trading and it takes ten minutes to get a response, you need an auto execution when you get there.

And I think in order to do that and not get picked off you have to have a

size display. So if the market is good for one option, it's firm for one option to anybody regardless of who it is. If you want to be good for 100, you're firm to anybody for 100, and that size is what gets you there, not rules of the exchange that says if someone bids \$1 for one lot that the market maker has to be good for 50 when they don't want to be.

MR. SELIGMAN: Thanks Gerry. Peter Quick.

MR. QUICK: Peter Quick, American Stock Exchange. Yes, we'd be in favor of the NBBO being calculated by OPRA. That's what was proposed by all the exchanges in March. We would want this coincident with the linkage plan.

If you look about having timely access to away markets, that would be most important and what Joel was referring to because, for instance, the ITS system now I think has a 30-second timeout, or it could be a minimum of a 30-second timeout on a commitment to away market and listed AMEX and New York Stock Exchange listed securities. And when Joel talks about a five-minute execution in the option world, that would be completely unacceptable without the linkage.

As far as the ID goes, as Ed pointed out, the ID is really due to quote mitigation. We've seen in the paper recently about quote flickering, and that's exactly what happens now with a lot of quotes with regard to options, and that's simply because maybe somebody goes from bidding 97 to 98 to 99 size-wise, and that creates a lot of capacity requirements for the system.

So that is the reason why we would not be in favor of quote identifiers. That information would still be available so that firms could evaluate their order routing decisions.

MR. SELIGMAN: What about size?

MR. QUICK: Yes.

MR. SELIGMAN: Charlie.

MR. ROGERS: Charlie Rogers, Philadelphia. Yes, we are in favor of a centralized NBBO, and it should be tied with the implementation of the linkage. Relative to the other two questions on the table, market identifiers are an interesting things. Peter touched upon it, and so did Ed. It's clearly a structure versus a capacity point of view.

And if you look at the markets right now, what generates a new message would either be you get a last sale go out, you get a change in a quote, you get a change in a size, and now you've just added another variable, which is a change in an exchange probably associated with a size.

So you have the potential for increasing the stream of messages that's going out right now, and those messages are bigger. So at this point in time, we would not be in favor of having an indicator on those messages going out.

With respect to size, we're in agreement that size is very important. What

makes for an interesting combination is when you look at the combinations and permutations of an exchange identifier, which exchange is there first and in what size, you end up by saying, okay, if Exchange A is there first and their size is a 20 lot and then your exchange comes in next and makes it a 21 lot just on a size point of view and the quote has not changed, does the 21 lot take priority and therefore the exchange identifier changes, or does the first exchange that was there with the original 20 setting the market stay?

At some point in time, do you try to consolidate those and, in effect, is it the 20 and the 21, so it's now 41? There's interesting combinations in there that you really got to think through. Size is important, but you've got to think through how you're going to represent that size.

MR. SELIGMAN: Appreciate that. Mike.

MR. D. JOHNSON: Joel, can I weigh in?

MR. SELIGMAN: Yes. This is David?

MR. D. JOHNSON: Yes, Dave Johnson from Morgan Stanley. I think, number one, given our responsibilities as firms for best execution, NBBO is a must. NBBO with size is a must, and I'd like to also incorporate what you've done on the equity markets with the Limit Order Display Rule, to incorporate that with NBBO and size.

The linkage, I think it's long overdue. I think linkage answers a lot of the questions not only in this category but in others.

The identifiers, I think that simplifies things. I'm not really sure -- and I'm listening to the capacity issues that both Charlie and Ed and others have addressed, and I've not addressed that myself. So I'm concerned, but at first blush here I think it simplifies things utilizing NBBO. But keeping in mind what's good for the customer and also our responsibility of best ex, all these things are very positive

MR. SELIGMAN: Thank you, David.

MR. SELIGMAN: Let me turn now to Mike Simon.

MR. SIMON: At the ISE, we strongly support an NBBO. We do not believe that the NBBO should wait until there is a linkage, for many of the reasons that Rick Ketchum gave.

There is access between the markets today. Is it perfect access? Is it even great access? The answer is no. Is it adequate to provide a meaning to an NBBO? We think that is it.

And I think, to what Rick was saying, the real proof is, do people abide, or attempt to abide, by the better quotes in the markets, and the answer to that is absolutely. Each market has its own variety of trade-through protection. Today we all give best execution and trade-through reports to our members. I think that there is adequate access to support an NBBO as the markets currently exist.

And in addition, the SEC has adopted a trade- through disclosure rule that would require members to give notice when they trade through another market, based on today's quote stream. Well, that is in abeyance. Until there is a linkage it is not contingent on there being an NBBO, so I think that our market structure today would support an NBBO.

As to market identifiers, I sympathize. As the smallest and newest market with what Bernie Madoff said, that we'd love to be able to get our identifier out there, since many times we are the best bid or best offer. But along with my fellow exchanges, at least the majority of us, believe that it would be counterproductive to our quote mitigation efforts. And using Bob's qualifier regarding pennies, at this time we would not support a market identifier until we were comfortable that it would not exacerbate the capacity issues.

As to size, absolutely. We believe that the NBBO should be calculated just like it is in the equity world. First, best price, then size, and then if two markets are the same size, the first in time.

MR. SELIGMAN: And let me just observe that we're very grateful that Mike Simon and some other representatives from the options exchanges who were not members of this committee could join us today, in terms of the report. We'll have to recognize that you are not members. Cameron?

MR. SMITH: I'm Cameron Smith, I'm with Island, rather than Datek, as the sign says. I'm sitting in for Ed Nichol today.

With respect to NBBO, I think that the question really is whether or not -- we certainly support an NBBO and believe that that's a very valuable tool for market participants and investors.

The real question in our mind has been -- and I know Ed has ably represented this view when he's been here -- is whether or not it should be required by regulation or, in the case of OPRA, by contract. And we believe that it's going to be there, and it doesn't need to be required. So I don't know what column you put the check in.

With respect to linkages, we support proprietary linkages, so we don't believe that there should be a linkage, per se, but that there should be access, and that access should be proprietary in nature, and that would include the ability, of course, to charge a fee because you shouldn't be able to access somebody else's market on better terms than a member accesses that same market.

Finally, with respect to the acronyms and the size, I hadn't really thought a lot about it, but it seems to me you would need that information. And just from a policy standpoint, I don't know that I would make my decision, one way or another, merely based on the technology limitations of today. I mean, as we all know, that's changing very quickly, and to make an important policy decision based on where we are with technology today.

MR. SELIGMAN: Thank you, Cameron. Mark, you were out of the room when I explained this machine, which is between the two of us. We've been trying to remove it, and I apologize that we haven't had sight lines. But let

me turn to Mark at this point.

MR. TELLINI: I've been trying to talk all day, but you've --

(Laughter.)

MR. TELLINI: So I am here representing Charles Schwab and Company, and so I'm here representing probably the largest group of retail options customers in the market. And so I'm going to talk about customer experience for a second.

Today, in the options market, once you get beyond size, it's often a black hole for a customer's order. They don't know what price they're going to get, and they don't know how long it's going to take.

And that's, in large part, a function of the inadequacy of the market data they're presented, and principally, size. They have no idea what size is actually quoted in the market, they also don't know what size -- what depth there is in the market, beyond inside size. We've spoken before a lot about the importance of depth.

But anyway, it speaks to the importance of size, it speaks to the importance of the ability of the market center in which your order has arrived, the ability of the market center to access another market center. So, obviously, linkage is important to us, and linkage is irrelevant if the quotes aren't firm on the receiving market centers.

In terms of market identifier, so market identifier, again, highlights the absurdity of the current system from the perspective of the retail customer. So, retail customer is presented with a single quote. It's not a stream-in quote, and so you tell the retail customer what the price is, and more often than not, by the time their order is entered and sent and received in the market, the price may have changed, and the same goes for market identifiers.

So, what's the significant to the retail customer of knowing that P-Coast or AMEX or CBOE was inside the moment their order was entered, if they get a confirm back later that suggests that their order was executed in a different market at a different price.

You know, if they'd actually been able to see that, that would -- to actually see those quotes change, that might be a different story. And again, that speaks to the importance of making market data products accessible to the retail customer and affordable to the retail customer.

And on NBBO, we've spoken to this before, and we obviously think NBBO is incredibly important to the retail customer. We would offer it whether it was required or not. But we don't think that, you know, as an options trader myself, I actually see an NBBO when I trade. The market makes it available, there are multiple vendors of NBBO in the options market today, and there would continue to be tomorrow, regardless of whether OPRA required an NBBO or not.

MR. SELIGMAN: Thank you, Mark, I appreciate that. Let me -- Bill?

MR. HARTS: Thank you, Joel.

MR. SELIGMAN: A quickie?

MR. HARTS: A quickie. It just seems to me, going back to this identifier thing, that if by adding capacity or tweaking our "carrying capacity" we as an industry can quadruple or quintuple the depth of the option markets, then we owe it to our customers to do that.

(Laughter.)

MR. HARTS: Thank you.

MR. SELIGMAN: Appreciate that. And the entire SEC did not come to a halt.

Let me paraphrase what I think I heard there, heard in the last few minutes. There seems to be a large consensus in favor of the NBBO, and I think it's reasonable to anticipate that an effort will be made through OPRA to evolve that.

Second, there were, I think, a majority who favored coordinating it with linkages and/or access -- and I think Rick Ketchum's point was well taken -- but it seems to me reasonably clear that that was of consequence to a majority of this group.

It seems to me a large majority who favored size, as well as the NBBO. With market identifiers, there was a majority who favored it, but I think the report needs to very carefully recognize that a majority of the options exchanges themselves did not, as of this time, because of capacity considerations, and I think that needs to be recognized as well.

Obviously, a draft of the report bearing upon these issues will come to everyone, and we'll be able to capture nuance and tweak the report, but that seems to be where we are on this cluster of issues.

Let me focus our attention on the next cluster, if you will, and I'm going to frame this one as quote mitigation strategies. And let me see if I can frame a hypothesis and see if the committee is comfortable with it.

Proposition one is a generally recognized sense that it would be appropriate for the Commission to support well-designed quote mitigation strategies.

Proposition two would be among the quote mitigation strategies that were discussed with this group were, among other things, the request for quotes concept, some relaxation of the quote rule out of the money, more aggressive delisting strategies, and I think there may have been others.

But proposition three, it would be premature for this committee to weigh in favoring any of these quote mitigation strategies before the option exchange's response to the settlement of the SEC actions had been provided to the Commission.

That is to say, what we would really be -- concluding is that the committee

recognizes there well may be a need for quote mitigation strategies, but the appropriate means by which these could evolve should occur only after the options exchanges have had more chance to mature their views on it, and there has been a dialogue back and forth with the division of market regulation.

That's a complicated hypothesis, but I think it captures one way to look at what we've heard and read through today.

Is everyone comfortable, or to put it this way, again at the risk of double negatives, is anyone on the committee uncomfortable with that framing with an approach to quote mitigation?

MR. JOHNSON: Joel? Dave Johnson.

MR. SELIGMAN: Dave?

MR. JOHNSON: I think you should support quote mitigation. Among the mitigation issues, RFQs and all that, I think the exchanges have addressed it. I'm not sure where they all stand, though, whether they're in agreement with all of the issues that have been talked about for the last two years. So, I'd like to get some clarification there.

Would it be premature for this committee to recommend the types of mitigation? I think -- I assume that everyone at the table has heard all of the issues, have heard from the options committee, have heard from other industry committees and forums that, you know, the issues are out there.

I don't know if this committee wants to recommend it, but I sure would put it on the table to say yes, we probably should, because we know all of the issues. Maybe I'm ahead of the game, but I would like to see something come out.

MR. SELIGMAN: Dave, the --

MR. JOHNSON: Not being a member of the committee, either.

MR. SELIGMAN: Yes. The only way in which you may be ahead of the game would be the following. The options exchanges have delivered certain draft plans to the Commission which are not public yet.

MR. JOHNSON: Yes.

MR. SELIGMAN: There is an ongoing dialogue with the Commission which, among other things, is taking up quote mitigation strategies.

MR. JOHNSON: Yes, I'm aware.

MR. SELIGMAN: And what I am suggesting is it's very difficult for this committee to have a view where most experts, with respect to it, haven't reached a point of being able to publish their view. I think the one point on which this committee can reach a reasonable conclusion is that we think quote mitigation strategies make sense, given the enormous existing and

potential capacity issues in the options exchanges.

But the ways and means, I think it's premature for us to offer specific opinions on. I'm not sure of the options exchanges, the division of market regulation has really sorted it through to a final point, although I understand that there's been a great deal of discussion.

Indeed, if I can restate in equine terms where the discussion has been, it was earlier characterized as the horse having left the barn, then we got to a point where the horse had been beaten to death, then we were beating dead horses. So it's clearly discussion on which -- and then we were bringing the dead horse to water in wonderment that it would not drink.

So I think there is no question that there has been a lot of discussion, but I don't think it's reached a point of finality, and I apologize for horsing around.

(Laughter.)

MR. SELIGMAN: I think we have Mike Simon.

MR. SIMON: I would just point out that the plans that we -- that the exchanges have filed in response to the SEC's anti-trust orders really only dealt with the reformulation of OPRA and capacity planning, and did not address quote mitigation. We've been addressing quote mitigation two years before the order, and we're continuing to address it.

As one of the exchanges who's been involved in those discussions, we're actually starved for advice from the industry. If we sit around the table, us five exchanges, with the Commission there saying, "This is what we want to do," it has -- there is no quote mitigation strategy that is painless.

There will be a lack of transparency and a loss of transparency in any mitigation strategy that we pursue. And the question really is, how much pain and how much lack of transparency is the industry willing to accept for quote mitigation?

I've heard a lot around this table today about an RFQ. That will have some lack of transparency for the series that are subject to that. Whether it's an official recommendation or just a consensus around the table, I think it would really help our effort to get the users -- mainly the users and to some extent the vendors -- to, you know, voice their positions on this and I think it would move the process forward.

MR. SELIGMAN: Let me just add one other, I guess, proposition, if you will, to my series of hypotheses, and that is, there was a discussion earlier today about the wisdom of the vendor and user community talking directly to the options exchanges, among other things, on this type of issue.

And while it may raise anti-trust concerns if it's not done in an appropriate way, certainly a round table discussion of that type might make some sense.

Going back to my hypotheses, is there anyone who disagrees at this point,

number one, that quote mitigation strategies appear to be appropriate, number two, that we have heard discussion of a series of them and we'll enumerate the ones we heard today, number three, that it would be premature for this committee, as of this time, to weigh in in favor of any specific quote mitigation strategy, and number four, it might be wise for the end users and vendors to talk to the options exchanges as they evolve, so they'll have a sense of, if you will, an industry-wide consensus.

Does anyone disagree with those propositions? Joel and Bill?

MR. GREENBERG: I don't necessarily disagree, I'm just confused. I thought that you said that there was some type of proposal given to the SEC that they're reviewing regarding quote litigation. And then what Michael just said confused me, so I don't know what the status is.

MR. SELIGMAN: The settlement plans I mischaracterized, and Michael's characterization was correct. There has been separate discussion, which has taken place over -- I think Michael characterized it as a two-year period.

And we are in a situation where I would anticipate -- and again, the options exchange -- and OPRA, correct me if I'm wrong -- but there is an anticipation that you will come forward to the SEC within a reasonable period of time.

MR. GREENBERG: What's that period of time?

MR. SELIGMAN: Reasonable. Bill?

MR. HARTS: We think that the large variety of products available from the options markets is part of the reason for its success. And if, as part of quote mitigation, you're going to start delisting ranges of products, that's probably not something that would be good for the investor.

The other thing is, you know, we keep talking about the capacity of the system, but last time I checked the cost of capacity is coming down very quickly. I mean, I -- we talked about T1s and T3s. At home, on my cable modem, I get three or four megabytes per second these days for \$29.99 a month. So, is this really just a temporary problem that we may be coming up with some Draconian solutions for?

MR. SELIGMAN: I don't think we're trying to come up with solutions. At most, we're going to reflect a view that the Commission should look sympathetically on proposals from the options exchanges.

I do think it's worth recognizing that it's possible that the approach commended with respect to the NBBO may itself be a quote mitigation strategy of some significance. Let's try Brian and then Bob.

MR. MCNELIS: Brian McNelis, from Reuters. I just -- while I don't disagree that all of these quote mitigation strategies are, you know, desirable things. I just wonder if we're not taking the wrong approach, in that it seems to be -- or, it seems to me that, if the exchanges have been talking for over two years on these issues and can't resolve them, there must be some sort of

an intractable problem inherent in it.

And it seems that that problem is most likely that they are trying to centrally decided, for a very diverse audience, what a product should be, and create a single output that makes everyone happy, and they're having a great deal of difficulty doing that.

It seems to me it would -- the customers would be much better served if the customers could tap into the elements of that resource and get those parts of it that they need. And then the exchanges are relieved of the burden of trying to make everyone happy because they, in fact, have, as just said, a great variety of products of interest to many investors, but they're not all of interest to all investors.

So, a free market solution that allows distributors of data to sell to buyers of data what they want, seems to be a much more reasonable solution.

MR. SELIGMAN: I appreciate that. Bob?

MR. COLBY: I want to just make three factual points, hopefully factual.

The first is that -- if I remember three -- the first is that the only thing that I believe that there is -- and this is under dispute in arbitration -- the only restriction on the data and how it's disseminated, that I know of, is by a market of origin. There are no other restrictions whatsoever on a vendor's ability to strip out and drop and repackage the data for customers. Is that right?

The second is that, to some extent, we may be talking about what gets fed down the pipe, and whether they should -- some of the data should be split into different pipes and enhance receipt capacity by vendors.

The third point is, I just want to re-emphasize, that without knowing what is going to happen in an option industry, there is a number of factors out there that potentially could increase capacity beyond what we're seeing today, real size, competing quotes within a market, new markets, we've talked about pennies, but all of these, I think, could -- quote volume up beyond what we're seeing already.

MR. SELIGMAN: I think I saw Andy and then Mark.

MR. BROOKS: Joel, I guess I'm going to support the point, I think that Bill Harts made, and that is, you know, it seems to me we're talking about a capacity concern, and how long is that going to be with us?

And I just -- I don't know that, I'm ignorant of how quickly things are changing. And if it's about capacity, and the capacity limitations are potentially threatening all markets, and we, for one, lose some flexibility with our primary vendor when things get jammed up in the options arena -- in fact, that part of our data feed gets turned off.

And if, in fact, it's potentially risking other markets and other quote and delivery things, and it seems to me we might have to be a little more forceful in bringing people to the table, and mandating some percentage

reduction of quote traffic or volume or messages per second or something if, as somebody pointed out, it's been a couple years and people can't quite get things together.

MR. SELIGMAN: Appreciate that, Mark?

MR. TELLINI: It strikes me when you hear the statistics that this is a classic problem of inefficient allocation of resources and costs. So you have 70 percent of the quotes are relevant to probably 99 percent of the users.

So why don't we force -- maybe to follow what Gerry had said earlier -- why don't we make the users of that data pay for the extra capacity? And if it's really worth it to them, then they'll pay for it. And if it's not worth it to them, then we'll all save a lot of money by not paying for that extra capacity ourselves.

MR. SELIGMAN: I think it's important -- and this is not only Mark's point, but Gerry and I think perhaps one other raised it as well -- to reflect that that is a potential quote mitigation strategy as well, that should be recognized.

All right, let me -- I'm sorry, Bernie?

MR. MADOFF: Yes. I mean, I'm not sure that this is -- how relevant this is, but Andy Brooks mentioned earlier that there was a concern about how do you price things if you eliminate a certain series, and so on.

It seems to me that there are quotes that are necessary for trading, and there are quotes that are necessary for evaluation pricing. And it seems to me that somebody should spend some time studying can this information be stripped off, and not necessarily jam all of the information down on a real-time basis when, for the most part, you don't need it, other than for a very limited period of time, or limited usage.

MR. SELIGMAN: Okay. Let me, I think, restate where we are with my hypotheses. I think to generalize, there appears to be the case that there is general belief that quote mitigation strategies may be appropriate at least, I guess, the way to put it, if capacity problems are appearing to have operational significance.

Second, there is a general acceptance of the proposition that it would be premature for this committee to recognize any specific quote mitigation strategy, but we want to reflect in the report the variety of strategies that were discussed, recognize that the options exchanges and no doubt the division of market regulation has been discussing this for some time..

I think it's important, also, to recognize that the topics are complex, and the fact that there hasn't been, to date, a satisfactory solution, or at least a kind of consensus proposal from the options exchanges should also be part of this.

Finally, there was the comment made earlier today, and I think a little bit of discussion on it, that there may be value if and when quote mitigation strategies are going to be pursued with the options exchanges talking to

the vendor and then user community.

And I guess, just to amplify that with Bernie's last point, it is also, I think, very important that when one does move to any specific quote mitigation strategy, that there be a careful evaluation of the cost and benefits. Where Bernie talks about quotes having different types of value to different types of users, it's important to take that into account and appreciate that for some theoretical models, even if a quote is way out, it may still have real practical significance.

MR. KETCHUM: I would not stand in the way of the committee if they want to do that, and I would think I would stay, because I guess I have two reactions.

One, a number of things said here make a great deal of sense to me, what Mark said and Cameron, and to some degree Mike and Gerry. I do think it makes a large amount of sense to explore ways that the people, by perhaps providing different levels of service, the people -- or, just a simple request, the people pay for what they want when there is an inordinate variation between the cost of generating its value.

But I don't personally know whether any of those are feasible or not, in the options market. I think the other concern is that there are things here you would list, such as not having firm quotes once you send the information out, that I think is just wrong, that I wouldn't personally list, and I wouldn't really want to be associated with, which is why I would abstain, if we're just going to do that.

And it strikes me that what we're doing in sort of putting out -- it's kind of useless, and it seems like I would rather either try to pursue a conclusion that a cost- based approach, as articulated by Mark, made sense here, or I would just not do anything and say, "We just don't know enough," and that it should be left to the Commission and the participants to deal with.

But I don't see much benefit in sort of saying, "It would be nice if it makes sense and it's appropriate, and there is capacity." But as I say, I won't stand in the way if there is a view of the committee to have it, it just doesn't strike me as useful.

MR. SELIGMAN: Appreciate that. Rich?

MR. BERNARD: Well, Rick basically anticipated the same kind of thinking I'm having, particularly after listening to Mark and other colleagues.

The idea of the options exchange is coming together and trying to do mitigation strategies at the exchange level is something that ought to frighten all of us. And I think this is really an issue -- well, we've seen it, and I've got the legal fees to prove it -- and I think this really is a market type of a solution, that the capacity has to be built at the exchange level -- and mind you, I say exchange level, not at the OPRA level -- so that everything is out there for the vendors to get, and then market solutions need to operate in terms of how the vendors -- what the vendors do with that enormous stream of data.

MR. SELIGMAN: Phillip?

MR. DEFEO: As an exchange, we don't want to dictate to the market place what kind of data they ought to use or not use; we find ourselves in the position of having to calculate everything and some people want it, some people don't.

I like the principle of since we calculate the data, those who need more complex, more relevant data for whatever means, should order paperwork. Those who don't should not. We're going to calculate it, whether we distribute or not depends upon who really needs it. So, I think that is a market force-driven thing.

And although we all work to try to mitigate quotes, the problem is whenever you start to have the discussion that there is some entity, entities, or factions or customers who want a different kind of thing. So we find ourselves always being -- having to calculate all of the data and have it available for those who may or may not want it, for whatever reason.

And I agree with the other comments made about pricing and so forth, as ways to drive the decision-making process about using quotes.

MR. SELIGMAN: Ed?

MR. JOYCE: For clarification, I -- was I hearing right on the recommendation that the economics should be placed at the generation level, as opposed to at the receiving level? But I want some clarification. That's what I thought you meant.

MR. SELIGMAN: I don't think I characterized it one way or another.

It seems to me this is going to be, at most, a small part of a report. It may be that in the end product, it is nothing more than we discuss this and reach no conclusions, or alternatively, we discuss this and reach the weak hypothesis I proposed.

I'm going to suggest that, in light of time -- and we do have one more significant cluster of issues that I think it's important for us to attend -- let's see how it writes. I do expect you to weigh in on comments.

This is, I guess, at the end of the day, probably one page in what will be a significantly longer report. And we may be rewriting the -- if you will -- the introductory sentence to be a non-conclusion, rather than -- we just discussed this -- rather than the more tepid conclusion I proposed.

Let me focus you on one other big cluster of issues and this is one which was framed in the equity side as the single versus the consolidator model, but it has a second significant aspect in the options side, and that is the issue of exclusivity.

And I'm going to ask Annette to reprise a little bit of what she said this morning, so everyone understands the exclusivity issue, and then I'd like to get some views on these two core issues.

MS. NAZARETH: Do you want me to say again what the exclusivity meant?

MR. SELIGMAN: Yes. In other words, just to -- we're now three-and-a-half hours into the day, and we want to be sure everyone is focused.

MS. NAZARETH: Basically -- I'll repeat it for you -- but basically what we said was that the -- each market was required to send its data to OPRA, and that the markets were not permitted to independently make their data available outside of the OPRA system. That's, in a nutshell, what the exclusivity provisions meant.

And what we said was that we have, in recent history, made some exceptions to that, because of the situation with the electronic markets, where obviously they need, in order to trade on those market places, they needed to make separate information that was not being fed through OPRA available to their participants in order to trade in that market, including, among other things, size.

And I think Mike Meyer related to the group that this is yet another issue that is being discussed by the exchanges, whether or not to change the exclusivity provision.

MR. SELIGMAN: So to characterize where we now are on these two issues, a consensus, a kind of majority of this committee, favored a competing consolidator model for the equity side. At the moment, on the options side, we have a monolith. We have OPRA -- so far as I can tell, no options exchange appears at this moment to contemplate or favor withdrawal and competing with it.

Second, with respect to the equity side, we have, at the moment, a recommendation evolving under which there would be, in effect, a mandatory NBBO, and then other data would not be subject to exclusivity and it would be more a kind of a free market approach there.

In contrast, on the options side, you basically have exclusivity for every options quote, less that report. So it's a different kind of structure in those two senses.

Let me start, so that we'll all have a sense of it, and ask the views of the representatives of the five options exchanges. Do they favor the current OPRA system, or would they favor a competing consolidator type of system? And second, do they favor the current exclusivity approach? And I'll start with Ed.

MR. TELLINI: Hey, Joel, can I ask a point of clarification first?

MR. SELIGMAN: Sure.

MR. TELLINI: Because I was here last meeting, I know some of the options exchanges weren't, and even I am not at all clear on what a competing consolidator model means, and after reading the draft, I'm even less clear. Could we articulate, maybe for everyone here, a little bit about what the common understanding of that would be?

MR. SELIGMAN: Well, the common understanding will be what was ultimately in the draft, and we'll work through the draft process to clarify that. And you know, I do look forward to the comments from Schwab if there has been confusion on it.

But just at a conceptual level, to put it in the simplest terms, you currently have the CT, CQ plans, at least one exchange has sought to withdraw from that and create a different mechanism by which equity quotes could ultimately funnel to vendors and others for consolidation.

MR. TELLINI: And who would price the data under the competing consolidators model? Who would you negotiate with for the data feed? Just --

MR. SELIGMAN: Mark, let me -- let's let that work out through the draft.

MR. TELLINI: Okay.

MR. SELIGMAN: I'm wanting to stay focused here. Let me suggest let's break down our two questions and treat them separately.

First, on the options side, does any one of the five options exchanges at the table right now favor a competing consolidator approach to the options? Mike is nodding.

MR. SIMON: Yes.

MR. SELIGMAN: Okay.

MR. SIMON: We would support maybe slightly modified for the options side, and we have to go through all of the ramifications, since we have not been a member of this committee and involved in the drafting and the discussions.

But we think that removing mandatory consolidation at a single level, allowing the greatest forces of competition to work, makes as much sense in the options market as it does in the equity market, and we would favor exploring and trying to establish a competing model in the options market as well. I don't see any reason why it would be less successful in the options market than it would be in the equity market.

In fact, because we have our capacity -- greater capacity concerns in the options market, allowing free markets and multiple consolidators to come up with different ways to address that, it may actually provide better benefits than having the five exchanges sitting around and trying to figure that out in one monolithic approach.

So I think there are a lot of benefits to a multiple consolidator, or competing consolidator approach from the options side.

MR. SELIGMAN: Okay, I started with Ed. Ed, what's your view?

MR. JOYCE: Given the complexity of the capacity issues for the minimum

data, the NBBO data, I believe a single consolidator is the most efficient way to proceed. Beyond that minimum data I would be open to competition in the manner in which the data, enhanced data, is provided and priced.

MR. SELIGMAN: Peter?

MR. QUICK: Even though the option markets weren't really around in their form now back in 1975, certainly the national market system -- we think that the present situation with OPRA lends itself very well to providing quotes fairly and evenly, you know, to all investors, institutional and retail.

So, we would be in favor of that. We'd certainly be open to look at any other model that came along, in terms of a better mousetrap but without a little bit more meat on the bones, it would be very difficult to embrace that right now.

MR. SELIGMAN: Charles?

MR. ROGERS: Consolidated information clearly is the best, and we'd be more than willing to sit down and take a look at any other mousetraps, so to speak, that may actually be better.

Ed sort of touched upon it, clearly the basic information should be there in a consolidated form. If there is more elaborate, enhanced information that needs to go out, then we would be more than willing to sit down and consider that.

MR. SELIGMAN: Phillip?

MR. DEFEO: I think, as the other exchanges said, I'm in general favor of OPRA for the top level, or high level information. I'm always interested in competing models, if there were one to develop, and I would never say never.

I mean, situations change, technology improves, and the like, and I think the industry itself should always consider alternatives, although I think currently, with everything we have to deal with, I would be in favor of staying with OPRA for the top level information.

For other information, I think there is a variety of providers that could be around, and any number of individuals, vendors, exchanges might want to provide different kinds of information. I'm in favor of that for those folks, but generally on the top level stuff, I would probably stay with OPRA at this point, although I wouldn't restrict it from others.

MR. JOHNSON: Jim, can we define what other info? What other information are you talking about?

MR. SELIGMAN: Well, let me -- that really goes to the exclusivity issue.

MR. JOHNSON: Okay.

MR. SELIGMAN: And in effect, if we regarded the NBBO and the sale reports

as at least part, if not all, of what is core, and anything else as non-core, it makes sense in the equity market where a fair amount of the book would not be considered core, with the options market, it's trickier because in effect you've got such out-of-the-money quotes up and down.

So, it is harder for me to particularize how you would segregate the core from the non-core there, and I was going to invite discussion once we'd gone through the question of the single versus consolidated or competitive consolidator issue that I framed first.

Let me see if I can then invite discussion from others on the group. What I'm hearing is of the five options exchanges, the moment for them seemed to be comfortable with the OPRA system -- is intrigued, or interested in exploring a competing consolidator model.

My inference from this -- and everyone jump in if I've got this wrong -- is that probably this committee would want to recommend that, for the moment, the OPRA system be retained, that at the very least we see how well a competing consolidator system works in the equity market if one is approved by the Commission before visiting, whether or not a competing consolidator mechanism of some sort would make sense on the options side.

There seemed to be, however, fewer of the kind of questions and concerns expressed on the options side that prompted interest in equity competing consolidators. Anyone disagree with that characterization? And I realize we're moving pretty briskly at this point. Let's start with Rich.

MR. BERNARD: Joel, I would never disagree with the notion that maybe you want to do this in steps, but I think the conversation has recognized that you're going to have to get all of these messages per second down to the vendor level to do anything that is market-like in dealing with mitigation strategies.

And if you start with that premise, that means that the idea that you're saving capacity by -- from the vendors by holding it up in OPRA disappears. So if you take that premise -- and I think it's an important premise, and we've heard some thoughts about maybe capacity is an over-rated concern in the long run, anyway -- then you think about what Michael said.

First of all, the idea of forcing ISE into OPRA, which is what happened, actually, as the price of admission into the options industry should make us all shudder.

Secondly, the power in the options markets, maybe more so than in the stock markets because the nature of options and the derivative means that you don't end up with the same kind of primary market phenomenon that you do in stocks, and with five competing markets, I think the competing consolidated market model in options would be very, very powerful, and you'd get the kind of innovation at the exchange level, and the interaction with vendors that you might not see as readily in the stock markets.

So, for those reasons, certainly it would be New York's view that there ought to be a very strong push toward letting ISE withdraw from OPRA, if

that's what it wants to do, although I wouldn't object to an idea of one step at a time.

MR. SELIGMAN: Did I see Rick?

MR. KETCHUM: I think Rich said my points, basically, very, very well. The nice thing about a competing consolidator model, it doesn't in any way change the ability for the markets involved to decide they don't want it. They just all have to decide.

The question is whether you should reach a conclusion, much less force it and generate the variety of competitive issues that that forcing does, that all markets have to be involved in a single competing consolidator.

And, you know, I don't think the analysis is any more difficult or complex in the options market than it is in the equity market, so I wouldn't -- I think you very accurately characterized the views of the five options exchanges and very well. I wouldn't vote for it.

MR. SELIGMAN: Gerry?

MR. PUTNAM: Yes, I don't think you should -- to wait to allow a competing consolidator to develop, because I think what we're saying is we're not -- the SEC wouldn't come out and require somebody and point to someone and say, "Hey, you go compete."

But if someone walks up and wants to compete, it seems to me that if I was in the business of building a system to disseminate quotes and sell that, that certainly one of the most attractive places to try and do that would be in the options market place, where there are lots and lots of quotes.

So, if someone wants to come and build a system -- you know, hats off to OPRA, 24,000 messages per second, 38,000 on the way, and then 50,000 right behind that. Way to go. Maybe nobody is going to want to come in and try and compete with that. But if someone does, I mean, I don't know why we'd stop them from trying to.

MR. SELIGMAN: All right, Bill?

MR. HARTS: I'd like to ask a question. I'm not sure of who, but in this competing consolidator model -- this is actually something I'm not even quite comfortable with on the cash side, either, but would be expect that the exchanges would separate out the licensing fees from the cost of providing the data? Because without that, no one would be able to compete anyway, right?

In other words, if the exchanges provided -- gave the same price to a competing consolidator as they gave to OPRA, then the competing consolidator would be hard pressed to sell the same data for more money.

MR. SELIGMAN: I think, again, that's the kind of thing we will flesh out through the comment process on the equity side.

Let me just -- because I think it's time to go around the table -- and the way it can be framed is the following: How many of you would favor the same recommendation for options, that there be a committee statement to the effect: "We would favor permitting options competing consolidators if the Commission division of market regulation was satisfied, with respect to the enumerated technology and competitive considerations in the report, recognizing that the technological considerations may be more complex in the options markets as of this time, or indeed, as of all times, because of capacity."

How many of you would favor that? The alternative is basically to say either, "I would never favor competing consolidators in the options markets," or, "I would simply not favor it at this time."

I'd ask you to be relatively terse in responding to that, but let's start with Michael.

MR. ATKIN: It seems to me that there was some systemic risk in the equities markets associated with going to multiple consolidators and it seems to me that there will be even more risk in going to it in the options market, so that would be somewhat of a concern.

And I also am a little bit unclear about some of the earlier comments that say we want a consolidated NBBO, a centralized NBBO, and I'm not quite sure how that would work in a multiple consolidator market.

MR. SELIGMAN: All right, and so to parse what you're saying, are you basically saying that at the moment, you wouldn't want the committee to recommend that the Commission even consider competitive consolidators, or that you would?

MR. ATKIN: Well, no, I have no problem with, you know, examining it and looking at it, and I'm in favor of competition, but I think that there are some extra risks here, and I think it's important that the risks be articulated in the report. I think it would be important that the Commission consider them in reviewing any plan, and we'll take pains, both on the equity side and in the options side, if we go that route, to articulate those risks.

MR. SELIGMAN: Annette?

MS. NAZARETH: I'd just like to, I guess, reiterate, I guess, what is your sentiment, Michael, that I think we spent a lot of time when we talked about the equity markets, talking about the technology challenges of a consolidated model. And I think that here we're assuming that either the Commission will consider those issues or take them into account, which is a big assumption.

I think we haven't had the same kind of fulsome discussion of what the differences would be, and whether the challenges would be greater in options. And I'm not assuming an outcome there, I'm just saying that I think the report would have to reflect that, you know, that was a precondition to really taking a lot of these views into account.

MR. SELIGMAN: And I think the report clearly will do that.

MS. NAZARETH: Yes.

MR. SELIGMAN: Okay. Mike, I take it that you would favor a competing consolidator model, but again, with the assumption that the technological risk be systematically taken into account.

MR. MEYER: Joel, I want to make just a brief observation that -- before people comment too much -- that I think the way you've set up the choice doesn't really reflect the reality of what's going on in OPRA.

Because as least as I understand it, you're asking people to express a preference between a competing consolidator model, and the advantages to competition that that would provide, as against retaining the monolithic single consolidator, for various reasons, and losing some of that competitive opportunity.

But I think what OPRA is working toward is retaining a single consolidator for purposes of core data, last sale in an NBBO, but relaxing its existing exclusivity requirement to permit competition in enhanced forms of service without regard -- outside of OPRA.

So, if that's what we're doing, then I don't think it's fair to have people choose between those two extremes without recognizing that that middle ground is very much on the table.

MR. SELIGMAN: I think that middle ground, though, is something we're a little familiar with because of the discussion on equities.

MR. MEYER: Okay.

MR. SELIGMAN: And it really does resonate, it's true.

MR. MEYER: Good.

MR. SELIGMAN: And I don't mean to cut off discussion, or to move us too briskly, but I think some of the concepts that have been discussed in the equity side, we're kind of assuming them.

MR. MEYER: Okay, well, I just wanted to make sure that you didn't miss that point in options.

MR. SELIGMAN: Okay. And Mike, and then we'll get back to --

MR. SIMON: Okay, I just want to make -- there are a couple of factual differences, if I understand your competing consolidator approach, there seem to be a couple of lynch pins to that. One is that you have a vendor display rule that applies. And the second is that you have the sort of reporting rule that applies that, notwithstanding, if you pull of a national market system plan, the vendors are still required to give, from a Commission rule, non-discriminatory data, and you've got to follow your own transaction reporting plan.

Neither of those rules apply in the options market. So I think if you were to move to a competing consolidator model in options you've got to do one of two things; either the Commission has to impose that overall discipline on how the market data works, or you keep a stump of OPRA and let the market participants come up with uniform rules that govern them, and then you move to a competing consolidator.

But you don't have to -- as Annette said in the very beginning, a lot of the national market system rules just don't apply to options market data.

MR. SELIGMAN: I think that's right. Rich? I take it --

MR. BERNARD: You take it correctly.

(Laughter.)

MR. SELIGMAN: Okay. So you would weigh in in favor of permission to form a competing consolidator, albeit with recognition that both the regulatory and technology competitive risks have to be worked through, or regulatory issues. Andy?

MR. BROOKS: I would agree with that, and also just comment that without it, I'm not sure how we challenge the pricing mechanism that's ultimately delivering data to the end users.

MR. SELIGMAN: Phillip?

MR. DEFEO: I support OPRA, but I would also look for permission under certain circumstances, as previously described.

MR. SELIGMAN: Michael?

MR. DORSEY: We'd like to see the permission for competing consolidators.

MR. SELIGMAN: Brian?

MR. MCNELIS: I think we're missing a part of the essential discussion that happened in Don's subcommittee, and that is that if you set up a situation where you say it's open for competing consolidators, but you require those consolidators to all go and buy data from all sources, you disincentivize those people from doing that.

And so, it's not -- it doesn't make sense to offer competing consolidators with an NBBO and with a vendor display rule, that is just not economically sensible.

So, we would certainly favor competing consolidators, but elimination of the NBBO -- well, this doesn't exist for options currently, so we would not impose those restrictions in the options market.

MR. SELIGMAN: Appreciate that Brian. Joel?

MR. GREENBERG: I agree, I think, with what Mark said earlier, that I'm not

sure how the competing consolidator is going to work in the equity market. So until that's clear to us, we'll abstain on deciding whether it should be in the options market.

MR. SELIGMAN: Thank you. Bill?

MR. HARTS: More competition is better, so competing consolidators is a good idea, but in conjunction with an unbundling of the current fee structure.

MR. SELIGMAN: Simon?

PROF. JOHNSON: I would not support competing consolidators at this time, I think we need to see what happens in the equity market.

I agree with Brian, there is a contradiction between an NBBO and vendor display types of rules in competing consolidators. But my very strong inclination is to go with the NBBO and the vendor display type of rules, rather than -- and I think you're going to get very, very little, if anything, from competing consolidators in the equity markets. I think introducing it in the options market is just going to seem irrelevant at best, and disruptive at worst.

MR. SELIGMAN: Ed?

MR. JOYCE: I don't think we're giving sufficient -- weighing in sufficiently, anyway, on the importance of the complexity of the OPRA environment. I couldn't, without quite a bit more analysis, support competing consolidators.

And I recognize Rich thinks we should shudder at letting ISE -- requiring ISE join, but I was on the other end of that shuddering about five or six times, where not only were people allowed in, they were forced in. So I don't know how we can change so much right on the fly.

MR. KETCHUM: I'm for competing consolidators with the same regulatory recommendations that exist on the equity side, I think covers Mike Simon's concerns.

MR. SELIGMAN: Don?

PROF. LANGEVOORT: I was very much on the fence with respect to competing consolidators in equities. It strikes me that the transitional problems that are going to be present moving to competing consolidators in either equities or options get compounded in the options area, given the capacity concerns and all the other problems that are being faced.

My intuition is that maybe something of an overload, and I would be hesitant to move, at least in the near term, toward competing consolidators in the options market.

MR. SELIGMAN: Bernie?

MR. MADOFF: I would echo what Rick just said.

MR. SELIGMAN: I'm sorry, you would echo what?

MR. MADOFF: What Rick Ketchum --

MR. SELIGMAN: Ketchum, okay. Gerry?

MR. PUTNAM: Compete, no vendor display rule.

MR. SELIGMAN: Okay, let's see, we've got Peter?

MR. QUICK: Theoretically speaking, I think competition is great. But I think because of the practicalities that we have to deal with, that we would be in favor, until there was more information on what this competing consolidator would be like, that we would support the single consolidator with OPRA which, in conjunction with SIAC, has done a wonderful job in terms of doing their duty.

MR. SELIGMAN: Charles?

MR. ROGERS: The Philadelphia office would like to wait and see what comes out on the equity side. It just doesn't seem very practical on the options side right now.

MR. SELIGMAN: Michael?

MR. SIMON: Every July, I still shudder when we have to make our next payment to OPRA as our entrance fee into the organization, so I do support competing consolidators, and I think that anything that needs to be worked out on the options side could be worked out.

MR. SELIGMAN: Cameron?

MR. SMITH: I think without elimination of the vendor display rule that the title even of competing consolidators is a misnomer. It seems to me it's more going from a monopoly to oligopoly. So I don't know where that puts me. I think what Gerry said, "With competition, I'd have competing consolidators," without the vendor display rule.

MR. SELIGMAN: Mark?

MR. TELLINI: So again, I go back to I'm not quite sure what a competing consolidator's model is. Until there is more flesh on that, we'd be hard pressed to decide if we were in favor of it or not. We will never go down as opposing competition, but it seems to me without a display rule, or without other significant safeguards, that it's not competition, if only by name.

MR. SELIGMAN: Okay. So what I heard, in essence, was there was a majority who favored a competing consolidator model, but there were a lot of caveats articulated. One level, there was a sense we need to see how it works in the equity market.

Another level is we'd like to see actual experience in the equity market. A third caveat was it doesn't make sense without an NBBO. We'll try to capture this in the report.

I do think it's important to recognize that within the options exchanges themselves, four of the five, in effect, were saying, "Not now." One, who, as Mike put it, has to deal with its bills every July from OPRA, clearly takes a different view, and that needs to be expressed in the report as well.

I think Mark's point -- and a couple of others that made it -- they want to see a fleshing out of what the competing consolidator model will mean in the equity, and we'll work on that in drafts of the report.

MR. JOHNSON: Joel, can I just weigh in?

MR. SELIGMAN: Please.

MR. JOHNSON: This is Dave, I'm sorry. We would be in favor of the competing consolidator for -- based on what you're saying right now, I agree with you. But just for the record, we would be in favor of a competing consolidator.

MR. SELIGMAN: Let me ask those who favored a competing consolidator mechanism -- actually, I will not.

(Laughter.)

MR. SELIGMAN: Let me go to a different issue, and it's the last one I'm going to pose, and then I'll have a residual conversation: exclusivity.

Let me go back to Mike Meyer. He said there is some discussion as to how OPRA is attempting to reduce the scope of what is exclusive, what information would be within their concept of exclusivity, what would be outside. I think it's good to put that on the table. Could you do so?

MR. MEYER: Sure. The current exclusivity requirement, which I don't think is all that different from, as a practical matter, what applies in equities, is that last sale in quotes that the information the exchanges have must be disseminated through OPRA, and may only be disseminated through OPRA. The exception allows electronic facilities to operate, because their own network is their market, and they can't be limited to OPRA only.

The consideration would be to relax that further and allow the exchanges and others, for that matter, to provide value added dissemination of market data outside of OPRA, for whatever economic arrangements they can negotiate, so long as the recipients of that data receive NBBO and last sale information provided by OPRA. That's the proposal.

MR. SELIGMAN: And I think that may be a good way to get a hand on this one. Let me walk it around the room and see how many would favor the proposal that, I take it, is going to eliminate from OPRA.

And again, it would be the notion that the exchanges would be able to sell their data to others than OPRA, as long as the others included the NBBO

and last sale report, but they'd be able to customize their sales, otherwise. Start with Mike?

MR. ATKIN: I support that.

MR. SELIGMAN: Rich?

MR. BERNARD: I'd like to hear from Mike Simon, because I'm not sure I understand what's left after you put the last sale and the NBBO out through the OPRA, what it is that you're going to be able to accomplish under this liberalized regime.

MR. SIMON: Rich, to put it in terms that you would understand from the New York Stock Exchange, basically it gives us the ability to run what would be the equivalent of your customer dot with market data. We could put our terminals in front of any end customer in the country the data that we produce and that our members see.

And as long as they saw the ISE quote, whether it's the full book or just the top of the book, as long as it had an OPRA NBBO there so that they could see whether or not they were trading through, they could see our entire market and trade directly through a sponsored terminal. It's something we strongly favor, and it is important to us.

MR. BERNARD: Then I guess, I would say that, so long as this is not viewed as an alternative to the fully competitive model of competing consolidators, I would be for it.

MR. SELIGMAN: Andy?

MR. BROOKS: I'll have to admit, Joel, I'm lost a little bit on this one. The -- you don't have -- if you're disseminating information to customers and it doesn't include the NBBO, what are you disseminating? What are you giving?

MR. SIMON: It does include the NBBO. It would have market-proprietary information plus the OPRA NBBO, so that they would know where the best market was in making their trading decisions.

MR. SELIGMAN: Excuse me for one second, let me go to Bob.

MR. COLBY: I just want to see if I could clarify this a little. This is actually moving the options markets closer to the way the equity markets run now, because in the equity markets, there is a consolidator, but there isn't anything that stops a market from putting out its information separately.

The display rule says any vendor or broker that makes that available has to also include the NBBO, but there is not an exclusivity requirement that I know of in the equity side to date.

MR. BROOKS: Based on that, I'm in favor.

MR. SELIGMAN: Phillip?

MR. DEFEO: I'm in favor.

MR. SELIGMAN: Michael?

MR. DORSEY: We're certainly in favor of that, yes.

MR. SELIGMAN: Anyone opposed to it? Okay.

(Laughter.)

MR. SELIGMAN: I'm sorry, Brian, and I should have known. Forgive me.

MR. MCNELIS: I'm in favor of saving Mike Simon a lot of money. I would like to eliminate OPRA all together, yes.

MR. SELIGMAN: Okay, Joel?

MR. GREENBERG: I'm in favor, but I'd also like the term market participant to include specialist and DPMs, in addition to exchanges.

MR. SELIGMAN: Okay. Everyone else in favor? No? Okay, Reuters? So we've got Cameron, Mark? That is, you are not in favor?

MR. TELLINI: We are not in favor of an exclusivity clause.

MR. SELIGMAN: No, I understand that. This was --

MR. TELLINI: No, but towards --

MR. SELIGMAN: In any --

MR. TELLINI: Exactly.

MR. SELIGMAN: Okay, all right --

MR. TELLINI: Actually --

MR. SELIGMAN: Sorry?

MR. TELLINI: -- I should make a point here. And clarify for me if I'm right or not, but Island's book is on the web today, distributed. And to the extent that Island were to start quoting options and -- that would be illegal under -- that would be prohibited under this proposal.

So, information would be denied, helpful, useful information that's available free would be inaccessible to customers.

MR. SMITH: It would be prohibited because it would be cost-prohibitive to also include the NBBO.

MR. PUTNAM: Right. It's a vendor display rule, is what -- I mean, this sounds to me this is a vendor display rule. So if someone -- and you might

have a rule that says you can't falsely disseminate information, or disseminate information to a public customer, imply it's the NBBO, and have it not be.

But if someone -- which we heard earlier, 70 percent of the information is useless -- if someone says, "I just want to buy 30 percent of the information, and I don't care about the useless part," if this precludes them from doing that, then I'm against a requirement to disseminate the NBBO and last sale information with any value enhanced data.

MR. SELIGMAN: All right, let me be real clear. That is, more or less, what we're talking about. That is, there would be the requirement of the NBBO and last sale, and then there would be free play with respect to enhancements coming from individual exchanges.

And what you're basically saying is you don't like that, because you don't like the NBBO.

MR. PUTNAM: Yes, there's just no chance to develop any competition in the market place if you make everybody have to go back to that consolidator, that single consolidator, get a piece of information, pay for it before they can differentiate themselves.

And I think it's Mark's point with the Island, and us also, that we provide free information on the web. And if we had to publish an NBBO requiring us to buy it before we could give that information, then that would make it very expensive to do.

The disclosure requirement needs to be there, you can't fake it that it's the NBBO, but as long as the disclosure is there, I don't know why people shouldn't be allowed to buy what they want.

MR. SELIGMAN: Okay. I know we're going to have late lunches today. But just for the comprehensiveness of the record, we went through Michael, we picked up Ryan's point of view.

Again, the question is, with respect to what is an OPRA proposal for non-exclusivity of data beyond the NBBO and last sale report, let's go through Joel, go around the table.

MR. GREENBERG: Just to clarify, we would be in favor if you can put out information that's not -- that does not have to include the NBBO, option information would be the depth of the book that does not necessarily have to have the NBBO included, but as Gerry said, there would be a disclaimer, "This has nothing to do with the NBBO, this is the depth of the book."

But we'd also want it to be that it's not just an exchange, it has the right to do that through the DPM specialist or any other broker-dealer would have that ability.

MR. SELIGMAN: Okay. Bill?

MR. HARTS: I think the only way that you would want to force someone to carry the NBBO is if they could get the NBBO for free, otherwise, Gerry's

point, you'd essentially be eliminating competition.

MR. SELIGMAN: Yes, we sort of had the discussion on the NBBO earlier, and I guess maybe to frame it very clear -- what's happening is people get tired -- is there was a consensus in favor of the NBBO, we had discussion as to timing it with linkages or access, size, market identifiers.

The question is, above and beyond last sale reports and NBBO, should there be exclusivity through OPRA? And OPRA has taken the position that they're going to propose that there not be, that additional data be allowed to be customized.

And that's where, I think, up through Michael there was concord with it. Brian is not, because basically, for the reasons he stated. And that's the question to be posed to you.

MR. HARTS: But -- well, no, but I thought that the OPRA proposal included that you had to carry the NBBO.

MR. SELIGMAN: That is correct.

PARTICIPANT: And that's how we understood it, too.

MR. HARTS: We would not be in favor of that. We would be in favor of non-exclusivity for the first part of your statement.

MR. SELIGMAN: Okay.

PARTICIPANT: Yes, let me amend mine, too, because -- along with what Bill says.

MR. ATKIN: Joel, just to clarify, we are not recommending a display rule for options. We are -- is that correct?

MR. SELIGMAN: I thought that's what we talked about earlier today, when we discussed the NBBO --

MR. ATKIN: Right.

MR. SELIGMAN: -- and the notion would be we'd presumably be -- I'm sorry -- adopted through the OPRA plan, rather than through the Commission, but that's an option as well.

MR. ATKIN: That is a display rule, if it's --

MR. SELIGMAN: Yes. No, I --

MR. ATKIN: If it's a contractual display rule, it's a display rule.

MR. SELIGMAN: Yes.

MR. ATKIN: So those are different questions, I think.

MR. SELIGMAN: What are different questions?

MR. ATKIN: Well, I think everybody supported an NBBO.

MR. SELIGMAN: Right.

MR. ATKIN: So, essentially NBBO -- it's not necessarily the same thing as a vendor display rule.

MR. SELIGMAN: All right. Fair point, but I guess what we're really framing now is, above and beyond the NBBO and last sale reports, should additional data exclusively flow through OPRA, or should exchanges be able to customize it?

MR. GREENBERG: Joel, can I ask a question, because I'm confused. If the CBOE wants to just show the depth of the book, and sell that to someone without -- and Reuters is going to buy it from them, would Reuters also have to show the NBBO at the same time?

MR. SELIGMAN: That is the OPRA proposal.

MR. GREENBERG: I think most people on this side were saying they can just show the depth of the book, without having to show the NBBO.

MR. SELIGMAN: That is certainly Reuters' preference.

MR. GREENBERG: That -- okay.

MR. BROOKS: I don't think that's what I'm saying. I think if you're in the -- if you're disseminating information about options, you have to include the NBBO. Otherwise, what have you got? You've got confusion.

Now, Mark, I'm sensitive to your point, you know, I don't want to restrict people, be gee whiz, somewhere you have to have a point of departure, and that is the NBBO. What's the market?

I don't care who pays for it, how much they pay for it, you've got to have that. Everybody who quotes it has got to get that.

MR. TELLINI: The NBBO is available someplace, right? So, all you're expecting customers to do is put two and two together. You tell them, "This isn't NBBO, it's valuable, additional information. If you want NBBO, go get it someplace else."

PARTICIPANT: Yes, I think our point is not, you know, whether or not a customer wants and desires and will buy from us an NBBO, it's whether or not we're forced by some regulation to give it to some customer who doesn't want it. That's the whole point.

MR. SELIGMAN: I think we all understand the terms. Let's go around the room. Bob, do --

MR. COLBY: I'm not clear exactly what the OPRA proposal is, but there may

be a difference between some forms of additional information and others, because it may be a difference to give the depth of book than it is to give just one market quote.

So, and certainly in the equity world, those are two different things. If you give just one market quote, you have to give them all. If you give depth of book, that's a different question. And so --

MR. TELLINI: What if you give one market's depth of book?

MR. COLBY: I mean, the question then comes, so --

PARTICIPANT: So, do you have to give the NBBO --

MR. COLBY: Yes. I mean, if it's one market's depth of book and it's their BBO, then yes.

MR. TELLINI: So it's okay if you strip out the BBO and just give the rest of the book, sort of --

MR. COLBY: There are lots of different forms of market product which may not be giving out the quote that are additional market data that the display rule doesn't apply to. Right?

I take your point, this would be a little silly in the Island context, but there are lots of other contexts where you could have other information, size, for instance. You could have other information that may not necessarily be depth of book, but -- or be quotes.

Sorry to complicate it, Joel, but --

MR. SELIGMAN: Let me put it in terms similar to where we were with equities.

There was a consensus in favor of an NBBO, and there was a notion that other information could be sold. Perhaps that's what we're talking about on the options side.

MR. ATKIN: I'm sorry, Joel, just real quick. I thought there was a consensus that we wanted an NBBO with size.

MR. SELIGMAN: I'm using a shorthand.

MR. ATKIN: Okay.

MR. SELIGMAN: Yes, yes. That was what we talked about.

MR. ATKIN: Bob said that that would be additional data that could be pulled separately.

MR. SELIGMAN: And I guess the question we're struggling with at this point, and I think it could be a bit because of fatigue, is where we come out, in other words, with respect to exclusivity on OPRA.

The way the OPRA proposal is framed, is they're going to propose that there has to be dissemination of the NBBO and last sale reports, and anything else can be customized. That's the question I've posed to the group, and we seemed to be rolling along okay, and then we hit a snag.

MR. JOYCE: Joel, can you compare it to the -- currently, all market data has to go through OPRA.

MR. SELIGMAN: Right.

MR. JOYCE: And the OPRA proposal is that beyond the NBBO and the last sale, any other information that you want to sell to anyone does not have to go through OPRA, you can do it -- you can contract directly for that information and compete for that information.

MR. SELIGMAN: And that's exactly the world we've more or less reached in terms of our recommendations with respect to equity. So the question is, do we want the same world for options as for equities? Brian?

MR. MCNELIS: Joel, I just want to not forget -- I mean, Joel Greenberg is sitting here with lots of valuable data, and he should also have that privilege. Why should it be restricted to OPRA or the exchanges? I mean, there are lots of people that have good, valuable data, and there needs to be an outlet for that and the freedom to buy and sell that data.

MR. SELIGMAN: Okay, I've heard Joel's point. Simon, what's your -- I'm sorry, Bill, you've weighed in on this?

MR. HARTS: I think we're sort of on the same page with Mark Tellini, from Schwab, that there should be no exclusivity for data, really, of any kind, because if any market participant wants to sell that separately, he should be able to.

If ISE wants to display their markets without anyone else's markets, that should be their prerogative. And if Andy Brooks wants to see the NBBO, then he can buy that from Reuters and see it on another --

MR. SELIGMAN: Okay, Simon?

MR. SMITH: You know -- excuse me -- maybe if we had three choices, it would be easier. One choice would be the OPRA proposal doesn't go far enough, the other one is it's dead on, and the other one is that's -- we don't need to --

MR. SELIGMAN: You can articulate each of those views in response. I mean --

MR. SMITH: But it's sort of misleading the vote for one of the two choices, because if you vote -- either way you vote, it's kind of misleading if you don't think it's aggressive enough.

MR. SELIGMAN: You can express that, is what I'm saying. Not going to preclude that. Simon?

PROF. JOHNSON: I think what OPRA is proposing is dead on, I think that it's essential to have a required, mandatory NBBO, a vendor display-type rule.

But I think beyond that, the ideas they are suggesting seem very sensible and very much in line with what we suggest for equities.

MR. SELIGMAN: Ed?

MR. JOYCE: I agree with that, Simon.

MR. SELIGMAN: Rick?

MR. KETCHUM: Support the OPRA proposal.

MR. SELIGMAN: Don?

PROF. LANGEVOORT: I'll support it.

MR. SELIGMAN: Dave?

MR. PUTNAM: If I could just give a quick example, just to -- if I wanted to provide my depth of market in my book, and I wanted to do it for \$1 a month, and you wanted to buy it for \$1 a month, and I was required at that point, if I wanted to do that, to go to OPRA and pay \$7 a month for the NBBO, I know have to charge \$8 to get to where I wanted to be, and all you really wanted was my book. And I can't sell it to you for \$1, because I've got to pay them \$7 to get the NBBO, and now it's \$8. Who on Earth benefits from that, if all you really wanted was my book, and you understood what it meant? So, I'm against --

MR. JOHNSON: This is Dave. That's my concern, too.

MR. SELIGMAN: Okay --

MR. JOHNSON: It's eliminating the competition that we talked before. I know the NBBO is important, but you know, we can provide that. Someone else may be able to provide that.

MR. SELIGMAN: Okay. Peter?

MR. QUICK: We support the OPRA proposal.

MR. SELIGMAN: Charlie?

MR. ROGERS: Philadelphia supports the OPRA proposal.

MR. SELIGMAN: Michael?

MR. SIMON: If anybody can remember back to what Rich Bernard said at the beginning of this discussion, that's what we support. We would support the OPRA proposal on the understanding that it is not the end game, but it is certainly an improvement over what we currently have.

MR. SELIGMAN: Cameron?

MR. SMITH: So, we don't support it, because it doesn't go nearly far enough.

MR. SELIGMAN: Okay. Mark?

MR. TELLINI: We can't believe that customers would be denied data just because you would force them to -- you would force the distributors of that data to buy the inside quote and display that along with it. So you'd take the Island book off, you'd scuttle New York's plans to put their book on the web, Redi and Arca have their books up on the web, those books would have to come off.

So, I mean, this is a conversation in the options context, but it at least is germane in the equities context.

MR. SELIGMAN: Phillip?

MR. DEFEO: Just a clarification. I support OPRA, but if someone else wants to show depth of book, and they don't want to show the NBBO, I don't think there should be a requirement, necessarily, to show that NBBO. If there is an NBBO to be shown, then it should be calculated by somebody.

And if there is somebody else who can do it better, cheaper, and they can meet all the requirements that are put on them, then that competition ought to go on, over time. But, you know, we don't want to restrict. We want to have a sensible environment that's regulated that has confidence, but won't restrict anybody. The data is the data.

MR. PUTNAM: There is a huge demand for it. Every broker-dealer in the country, and a lot of customers -- right, most of them -- want the NBBO data, so they're going to be willing to pay for it. So there is demand for that consolidated data. So it's going to exist.

It exists today, as Mark pointed out. There is demand for it, so it's absolutely going to exist, but you should differentiate it from value-added or enhanced data from tying the two things together.

MR. SELIGMAN: Mark, you had another point?

MR. TELLINI: With deference to the chairman, could we just take a show of hands on people who agree with -- I think Phil was the last person who articulated it, or Gerry. I mean, could we just take a show of hands of people who agree with that, versus disagree?

MR. SELIGMAN: Agree with what, precisely?

MR. TELLINI: With the idea that to the extent that a vendor -- I'm going to use these, I know these are terms of art -- but if someone wants to distribute market data that does not include the NBBO, includes, for example the Island depth of book, the New York depth of book, the ISE depth of book, that they should be allowed to do that without being required to also purchase the NBBO and distribute that --

MR. SELIGMAN: I thought we had -- I'm sorry, what?

PARTICIPANT: Is that what we're voting on? Is that what you're asking for a show of hands on?

MR. SELIGMAN: I thought we had the discussion earlier today as to how many would favor an NBBO, and we went through discussion then, focusing on such issues as with size, market identifiers. We had more people in the room when we had that discussion, and I think we've weighed in on that subject.

MR. GREENBERG: Joel, I think -- I thought that that was deciding whether OPRA should be calculating an NBBO, not that it would have to be necessarily -- would be a vendor display rule.

MR. DEFEO: We're not talking about -- yes, they're separate questions. What we voted on earlier is a different issue than this one. This one talks about the independence of data provision, and can someone who has individual data, collective data, depth of market, or whatever else, present that and not have to present specific OPRA data.

MR. SELIGMAN: All right. So, in other words, the notion is how many would favor OPRA calculating an NBBO, based upon all of the options exchanges but no vendor display rule?

PARTICIPANT: Right.

MR. PUTNAM: The reason why is because everybody in the room, everybody in the country, wants to know what the NBBO is. So when you say, "Are you in favor of the NBBO," The natural response is, "Yes, of course. I'd like to see what the best bid and offer is." But that is completely different than requiring a vendor to carry it.

MR. MEYER: Remember that the OPRA proposal does not require that the vendor carry the NBBO. If a vendor wants to provide only the enhanced data and not the NBBO, the vendor can do it, but he could only provide it to someone who, somewhere or another, got the OPRA NBBO.

MR. SELIGMAN: All right, let me -- I'll take Mark up on this question. And --

MR. JOHNSON: So, Mike, you said that OPRA was only calculating it?

MR. MEYER: OPRA would calculate it and make it available, and any service could only be provided outside of OPRA to an end user who also received, from some source, the OPRA-calculated NBBO and last sale.

MR. PUTNAM: And how would you know that? I mean, if somebody comes to our website and looks at our book, how do we know that we're going to consolidate it? We have people, I think, that just look at our book. They don't care about anything else, because they've got his for free, they've got --

MR. MEYER: I don't think we've gotten to the point of figuring out how we would --

MR. SELIGMAN: Bob, you wanted to --

MR. COLBY: I just -- I didn't quite understand what Mark meant, but I think there may be a difference in a question of whether someone can put up their quotes alone, and then have that distributed out to customers, just their quotes, and there is a difference between someone -- and it blurs on the edges, it clearly blurs on the edges.

But whether you can add value-added data in depth of book and other things that people want to see that aren't available currently with the options data, and whether that should be hindered by having to also combine it with an NBBO calculation, one is saying, "I'm giving -- I want to be free to give my quote and have people receive my quote alone, even though there is a consolidated quote out there." The other is to say, "Like, I've got lots of other stuff that people could use, and does that have to be packaged with the NBBO and last sale?"

MS. NAZARETH: I agree with Bob. I think what troubles me about the question that was being posed was I wasn't sure everybody was sort of framing the issue the same way. What I heard, you know, Phil say was well, there were certain circumstances.

Like, if you were showing your limit order book, where you didn't want to be inhibited from doing that, I think that's a very different issue from saying, "Should there be no vendor display rule under any circumstances?" So I guess that's why I had problems with the way the question was phrased. So --

MR. TELLINI: So perhaps what you could do is you could say that information could be disseminated, and it would have to include an official SEC disclaimer that says that this is information not to be construed as a representation of the best inside market of the stock.

MR. BROOKS: But doesn't anyone who is involved in executing an order need -- be required to know what the NBBO is to properly discharge their fiduciary obligation for execution? So I don't --

PARTICIPANT: A broker-dealer.

MR. BROOKS: A broker-dealer, an investment advisor, somebody. So I get a little blurred here. How can you do one without the other? And I'm with you, Gerry, if you want to put something out for free, terrific, you know?

MR. PUTNAM: The point is that everyone does want that information. Therefore, there is demand for it. Therefore, someone will supply it.

MR. SELIGMAN: Simon?

PROF. JOHNSON: I think we had a very long, detailed discussion, many of the same people, on this very issue when we were talking about equities. And my clear recollection is there was an agreement around the table that having a vendor display rule, so requiring vendors to display the NBBO, was actually essential.

And the reason we agreed on that, I think -- we'd have to go back and look at the transcript -- was there was a feeling that this theory put forward by Datek, primarily, perhaps also supported by other people in the room, is that there is this theory that just letting the market take care of the NBBO was a very dangerous basis on which to proceed. It might work out that way, but it doesn't seem at all to be consistent with what we see other financial markets around the world or in the U.S. financial history.

So, it's an attractive theory, but I think it has very little empirical basis, and I think it would be extremely risky to do it in equities. That's what people felt, and I don't understand why it's coming up again now, seemingly being taken more --

MR. SELIGMAN: Let's do this. I would like to finish within the next few minutes, unless it's unavoidable. Mark asked for a show of hands. I think he's entitled to it. How many would favor not having a vendor display rule for the NBBO in the options exchanges?

Okay, and I am going to just recite the names. Mike Atkin, Michael Dorsey, Brian McNelis, Bill Harts, Gerry Putnam, Cameron Smith, and Mark Tellini. And we'll reflect that. And Dave Johnson, are you still there?

MR. JOHNSON: Yes, yes.

MR. SELIGMAN: And so I can't see your hand, but you would support this, as well?

MR. JOHNSON: Yes, sir.

MR. SELIGMAN: Okay. I take it, on a committee of 24, that would indicate that the others would support this, or would abstain. Let me ask, how many abstain? All right, so I take it there is a significant minority, which is reflected by those individuals who have taken that position.

Now, late in the day, I'm going to ask this question and I'm at risk of shuddering the way others have. Are there other issues anyone wants to put on the table with respect to options?

(Laughter.)

MR. SELIGMAN: All right. Let me -- I have two final, then, issues to address. Would anyone from the public like to pose questions or make comments at this time? I don't see it. All right.

Let me focus, then, on where we go from here. We have received several thoughtful comments on the draft. We need any remaining comments no later than close of business on Monday. And I know Schwab has indicated that they were going to provide comments. Mark, will that give you sufficient time to provide comments?

MR. TELLINI: I will check with the people who are diligently working on the conference right now.

MR. SELIGMAN: Okay. Really grateful, close of business Monday.

MR. ATKIN: Joel, what happens after that? You still have an opportunity to weigh in?

MR. SELIGMAN: Well, let me explain. Because what we will do is the comments we receive by then we'll be able to integrate into the next draft. The next draft, among other things, will attempt to build into it comments received, build into it data received, and build into it a statement of where we were with options.

It is my hope, and I won't frame it any more aggressively than that, to be able to circulate the next draft by early August. There will be tight turnaround time with respect to processing it. I assume we will need at least three drafts for this.

So that my sense is the next draft, we may have something like a week to 10 days to turn it around again. We will get it to you as quickly as we can, but I am determined to meet our September 15th deadline. And because there have been some thoughtful comments, and will be others, we want to be sure we assimilate and integrate all of them in an effective and fair way. Mike and then Mark, in a second.

MR. ATKIN: Close of business Monday to get a next draft for early August turnaround, correct?

MR. SELIGMAN: Close of business for your comments. The SEC has to really work with them, in terms of doing a first draft, and then working with me, back and forth.

MR. ATKIN: And the next draft would include anything that you're proposing as attachments, or external sources that are feeding into this process that would be reflected somehow in the report, correct?

MR. SELIGMAN: If you wish to add attachments, you can add them to the second draft, as well as the first. We have so far indicated that there will be the following attachments: number one, the charter of the committee, number two, there were several competing consolidator models we will attach, number three, I have suggested to Mike in a sidebar conversation I'd like to attach the two FSDA surveys. There may be other attachments before we're through. I'd like to have a complete record.

MR. ATKIN: I'd just like to specifically talk about the letter on core data from Bloomberg. Does that get attached to the report, or --

MR. SELIGMAN: It potentially can, and I'd like a request from Bloomberg, but certainly it raises some interesting issues. Mark?

MR. TELLINI: So first, I'd like to request that our white paper, which we just submitted, be attached to the report. I think that goes to the concern we have in reading a 66-page report and counting all of 4 sentences that actually recount the harms that this process is purported to address.

MR. SELIGMAN: Mark, let me address that. I'd be glad to have a separate statement from Schwab, if it wishes that to be it. That would be fine. You may find that you would want to bend that into, or incorporate that into a

different framework before you're done. But if you wish that to be it, that would be fine.

MR. TELLINI: Our dissent, if you will? The other question I have is, again, 66 pages, most of which was mostly taken up with an overview of how the system works on paper, again, 4 sentences of discussion about how it actually works in the eyes of the users, but you're looking for comments back by Monday, and there is very little to actually comment on, other than the fact that there isn't much to comment on.

I'm assuming open, substantive questions about how a competing consolidator model would work, what are the rules under which it would work, no discussion of the costs and benefits of that model or the display rule -- I'm just wondering, are you looking to us to actually write big sections of this?

MR. SELIGMAN: No, I'm asking for comments. And you'll see several illustrations have come in from other members of the committee, and they have not had a difficulty posing comments ranging from factual and accuracies to issues they don't think were fleshed out enough, to concerns they'd like to have expressed in the report, to differences of opinion. And all that, certainly, are options available to Schwab, as any other member.

MR. TELLINI: Okay. So -- but, for example, I know Professor Langevoort had come in with a more precise clarification of a competing consolidator model. Are we commenting on each other's comments --

MR. SELIGMAN: No, I --

MR. TELLINI: -- and ultimately we're going to --

MR. SELIGMAN: Just on the report.

MR. TELLINI: Okay.

MR. SELIGMAN: And if you want to say, "We echo Don Langevoort's position," that's fine.

MR. JOHNSON: Joel, this is Dave.

MR. SELIGMAN: Dave?

MR. JOHNSON: Will you be sending this to Matt DeSalvo?

PARTICIPANT: Yes.

MR. SELIGMAN: Yes, he's a member of the committee.

MR. JOHNSON: All right, you'll send it to him?

MR. SELIGMAN: Yes.

MR. JOHNSON: Great, thank you.

MR. SELIGMAN: All right. This has been, obviously, a long time before lunch. But nonetheless, before we adjourn from our final meeting together, let me thank all of you who are here and to the extent the transcripts are read by others, all who participated earlier.

I think we have reached a number of thoughtful conclusions on very important issues. I think this report is going to make a real contribution to the Commission.

I will say, when I began this I did not anticipate that within what is the relatively short life of this committee there would be three separate chairs of the SEC, but my anticipation is we will be delivering this report perhaps some time late August or early September to a new chair.

I think what has been impressive to me has been both how much ground we've covered, and the issues on which we reached consensus.

I want to express my personal gratitude, first, to Annette and Bob, and David from the SEC, who have been stalwart in their support and help to this project, Dorothy Levitt, and Laura Ungar, for their support as well.

And then second, I want to thank all of you who have participated in the meetings, who participated in the written submissions, or will participate in the future. I think you've made a real contribution. It's been a pleasure working with you, and I will look forward someday to this being reduced to a final report.

Thank you, all.

(Whereupon, at 1:40 p.m., the meeting was concluded.)

<http://www.sec.gov/divisions/marketreg/marketinfo/071901mtg.htm>