UNITED STATES OF AMERICA

COMMODITY FUTURES TRADING COMMISSION

MARKET RISK ADVISORY COMMITTEE MEETING

Washington, D.C.

Thursday, April 2, 2015

PARTICIPANTS:

Panel 1: Default Management at CCPs:

Moderator:

THOMAS KLOET
Elmhurst College

Key Speakers:

SUNIL CUTINHO
CME Group

DENNIS McLAUGHLIN
LCH.Clearnet

IAN SPRINGLE
ICE Clear Credit

SCOTT L. FLOOD
Citi's Institutional Client Group

SUSAN McLAUGHLIN
Federal Reserve Bank of New York

EMILY PORTNEY
JP Morgan

MICHAEL MODLOCK
TriOptima

Panel 2: Market's Response to the Introduction of SEFs:

Moderator:

ANDREW LO MIT
Lab for Financial Engineering

PARTICIPANTS (CONT'D):

Key Speakers:

DARCY BRADBURY
D.E. Shaw Group

RANA CHAMMAA
UBS Investment Bank

MICHAEL O'BRIEN
Eaton Vance Management

Other Participants:

ANAT ADMATI
Better Markets

ROBERT ANDERSON
Committee of Chief Risk Officers

STEPHEN BERGER
Citadel

DAVID BURLAGE
CoBank

KARA DUTTA
ICE Clear Credit

DOUGLAS FRIEDMAN
Tradeweb

ANDREW GRAY
DTCC

BILL HALE
Cargill

MICHAEL HENNESSY
Federal Home Loan Banks

PARTICIPANTS (CONT'D):

NATHAN JENNER
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JERRY JESKE
Commodity Markets Council

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NRG Energy

RICHARD MILLER
Prudential Global Funding

SUSAN MILLIGAN
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JOHN NIXON
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SUSAN O'FLYNN
Morgan Stanley

ANGELA PATEL
Putnam Investments

EDWARD PLA
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MICHAEL PROKOP
Deloitte

PARTICIPANTS (CONT'D):

MARCUS STANLEY
Americans for Financial Reform

KRISTEN WALTERS
BlackRock

RANA YARED
Goldman

LUKE ZUBROD
Chatham Financial

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P R O C E E D I N G S

(10:10 a.m.)

MS. BOWEN: Good morning, everyone, and welcome to the inaugural meeting of the Market Risk Advisory Committee of which I serve as sponsor. I'm pleased to be joined here today by Chairman Massad and our fellow commissioners, Mark Wetjen and Chris Giancarlo.

Before discussing today's meeting, I will turn the podium over to the chairman and the other commissioners to see if they have comments for us.

Thank you, Sharon. Let me first just welcome all of you, both the members of the committee as well as the members of the public who are here. I want to thank all the members of the committee for agreeing to serve. It's very, very helpful to us. And I want to thank Commissioner Bowen for her work in putting this together, not just obviously this meeting, but this committee. This is a new committee for us, a very important committee, and she's done a terrific job over a very short period of time in putting together I think a great collection of people and a great agenda for today. I want to thank her staff who I know has worked very, very hard on this effort, as well as the rest of our staff in putting this together.

These advisory committees are very important. Our style here is that each of us as a commissioner is the sponsor of one of the committees, and they are a very important way for us to get input. And by input I mean not simply comments that people make. We get comment letters obviously on all of our pending rules and so forth. But the advantage of meetings like this is that there can be a discussion, there can be an exchange of ideas, and that's very, very valuable to us. We all and our staffs go back and look at the transcripts from these meetings also as we think about issues.

And the issues today that we're talking about are obviously extremely important. CCP resilience, stability, what happens in a default, are issues that have received a lot of attention lately. We had a roundtable as many of you know. Some of you participated in CCP recovery issues, kind of a different set of that broader range of issues concerning CCPs than the specific issues we're going to talk about today. But this is obviously going to be a set of issues that will and should receive a lot of attention going forward. And the second panel on SEFs and how the market is reacting to SEFs is equally important.

So, again, I just want to thank all of you, thank Sharon, and I look forward to today's discussion. And with that, I'll turn things over to Commissioner Wetjen.

MR. WETJEN: Thank you, Mr. Chairman, and thank you, Commissioner Bowen, for convening the meeting. When I started at the CFTC about three and a half years ago and some of my initial meetings were over those first several months, people kept raising this idea of perhaps there being a need for an advisory committee that focused on risk and at the time we did not have one. A number of people came through and observed that that was something that was missing if we're going to get a full picture from the industry through these advisory committees, making sure that we're informed on any number of different things going on in the marketplace.

So we authorized this particular committee -- I guess it was about a year or so ago -- and finally we actually have the very first meeting. So it's great that we are here today and that Sharon is sponsoring this committee and leading it now in an able way. I'm really looking forward to the topics under discussion today and hearing the viewpoints of the members on these important issues. As the chairman said, CCP risk has been getting a lot of attention, and we're taking a look at a subset of issues here today related to that. And then, of course, trade execution, which is still very, very novel and new to the marketplace. And our rules are relatively new, so it will be good to have the input we're going to get today and see if there might be some other initiatives we might undertake as a

Commission to make sure that's the kind of marketplace that we and the Congress envision.

So thanks again, Sharon. I'm really looking forward to the discussion. Thank you.

MR. GIANCARLO: I'll be brief. Thanks, Mark, and my compliments to you for conceptualizing the MRAC a few years ago and to Sharon for taking it on with such gusto and such verve. Today is going to be a terrific day.

The MRAC is certainly a committee and an area of inquiry whose time has surely come, whether it be looking at issues of systemic risk or cyber risk or CCP risk or clearing risk or, most importantly, liquidity risk, any number of those areas of risk. So I'm looking forward to not only today's program, but the program of this committee in the months and the years to come. I'm sure it's going to be a very important venue for a lot of good discussion between the regulator and the regulated as we examine these issues and make sure our markets are as risk-resistant as they possibly can be. So thank you very much.

MS. BOWEN: Thank you for your remarks. It really has been a privilege for me to be a commissioner, and it's been great working with each of you these last 10 months. So thank you so much again. I want to thank the members of the MRAC for bringing their passion, their expertise, and their intellect to these important issues.

I want to especially thank today our two moderators: Tom Kloet is Trustee at Elmhurst College and Andrew Lo is the MIT Sloane Professor of Finance. Both are well regarded and bring a wealth of knowledge to us and to our committee.

I want to thank my staff, particularly Petal Walker, who's our designated federal officer for the committee.

I, too, would also like to thank the staffs of the Division of Market Oversight, the Division of Clearing and Risk, and the Division of Swap Dealer and Intermediary Oversight.

And to those of you who helped set this up today, Margie, my executive assistant, Vontrice, and Tony and others, thank you. You make this look seamless.

The purpose of MRAC is to provide the Commission with market intelligence and recommendations from industry and other stakeholders about the market risk and market structure issues that we face. Because MRAC is a newly formed committee and given the breadth of our mission, I felt it was especially important to seek input from the public, so we asked for nominees for our membership and we asked that people give us issues or topics that we should think about.

It was equally important for me that MRAC represent a diversity of viewpoints and that the potential members would have an equal opportunity to have a seat at the table. The importance and recommendations of this committee will be invaluable. We will help the Commission in our efforts to identify, analyze, and mitigate market risk. As we all know, the markets that we regulate are constantly changing and this committee's members can play a critical role in helping the Commission understand these changes and their implications for market risk. Through the work of this committee, we hope to gain not only a better understanding of the range of systemic risks and the implications of our ever-changing market, but also to get the best thinking about how the Commission should respond to them.

This is a very impressive group before us today with decades of experience and diverse viewpoints. Pursuant to our charter, our members include end users, exchanges, clearinghouses, market makers, intermediaries, academics, and a regulator. Represented here are entities are from different corners of the market ranging from Prudential, Cargill, Federal Home Loan Banks, JP Morgan, Bloomberg, as well as the Federal Reserve Bank of New York, advocates of financial reform, and noted academics. I'm very excited about this committee.

During the comment period, market participants raised a variety of market risk and structure issues for us to address, including CPC risk management practices such as default management, recovery and resolution, and margin valuation, cybersecurity, unregulated service providers and FCM concentration. So there's a lot for this committee to consider.

Today, though, we turn to two important topics, one pertaining to market risk and the other pertaining to market structure. Though it's unlikely that a significant clearing member would default, it behooves us to do everything in our power to best prepare for it given the implications it would have to our economy. The importance of effective, robust risk management of CCPs cannot be overstated. The big question that we are trying to answer today is whether the default drills and other default preparations of CCPs are sufficient as they are currently constructed and whether they actually reflect our best thinking in terms of what the world will look like if there were to be a default. So along those lines I'm looking forward to a good discussion, hopefully, whether or not we should think about CCPs coordinating or standardizing their practices to better prepare for a default.

The second panel, dealing with market structure, asks the question as to whether SEFs have changed the fundamental swaps market, including the effect of the practice of name give-up. A central goal of Title VII was to bring the once opaque swaps markets into the light. The creation of SEFs was an important part of that effort and mission. Now that the SEF rules have been in effect for well over a year, we want to hear from the market participants about what effect, if any, it has had on the markets and how the Commission should be thinking about and possibly addressing the issue of name give-up.

In order to engage in a hopefully fruitful discussion today, for each panel we have divided our 31 member committee into an inner circle and an outer circle. Basically the inner circle will be leading most of today's discussion, and then after the break we will be switching to our second panel within a circle. We also have today members of the Commission staff on hand to answer any questions that may arise in terms of regulatory issues. And with that, I turn it over to Tom.

MS. WALKER: The meeting is now officially open.

MR. KLOET: Thank you for that important announcement, though. First off, my name is Tom Kloet and as Commissioner Bowen mentioned I am a trustee at Elmhurst College. In the interest of full disclosure, I'm also a nonexecutive director at NASDAQ Oil Mex, so any of my comments today aren't NASDAQ related, but they will be --

MR. CUTINHO: Tom, I don't think we can hear you.

MR. KLOET: Is that better? So my comments really are -- I'm a representative here of Elmhurst College.

First I'd like to thank Commissioner Bowen and the chairman and your colleagues for putting the MRAC together. The CFTC has a history of being an outstanding regulator, setting a standard for excellence in my view and having a committee like this continues to set a great standard. You're to be applauded for having the vision to put this together and frankly attracting an outstanding group of colleagues of mine here in the MRAC. So I really look forward to a great discussion. And to the chairman's point, it strikes me that it's great to be able to have discussions like this and have an interactive discussion as we go through these issues.

To that point let me briefly just talk about the agenda. We'll start with some presentations from three different clearing organizations. Then we'll get into some macro questions on default scenario, working our way toward some more micro questions, and complete this section of the panel by around 12:10 or 12:15 or so I think is the plan.

So with that, just a couple of logistical announcements for how this is going to work. When you want to speak, please press the button in front of you on the microphone. Unlike me, get your microphone close to you so that you can be heard. The roundtable is being Webcast and it's also being Audiocast. So the folks calling in will be able to hear if you have your microphone on and you speak into it. Although we can hear each other in the room, it's important that we allow the people on the Audiocast and the Webcast to hear. On the other hand, please turn your microphone off when you stop speaking as we can only hear a limited number of microphones at one time, so we don't want you to use bandwidth if you're not speaking. If you'd like to be recognized, what I recommend is -- and I'll try to demonstrate that -- just move your name banner up like that. If I don't see that, then show your hand or something like that and I'll try to call on you.

So with that what I would like to do is turn it over to Sunil from CME to make a presentation on behalf of CME.

MR. CUTINHO: I thought ICE --

MR. KLOET: Oh, I'm sorry. We'll start with Ian Springle of ICE.

MR. SPRINGLE: Thank you, Mr. Chairman, commissioners, for the opportunity to speak here today. My name is Ian Springle and I work for ICE Clear Credit, so I'm here to represent ICE Clear Credit. I was part of the --

MR. KLOET: Ian, I think you're like I did --

MR. SPRINGLE: Okay, sorry. So I was just saying. May name's Ian Springle. I work for ICE Clear Credit. I've been with ICE Clear Credit since 2008 when we were launching the clearinghouse, and I've had various roles, including head of product development and chief product officer. I've been responsible for the design and the execution of the testing of the default management drills, so I've done about five ICE Clear Credit default drills and participated also in a couple of ICE Clear Europe default drills to date and counting.

I'm turning to slide #2 of the

presentation. We've chosen in answering the question today of what are CCPs doing in preparation for a default of a major clearing participant in the broadest sense to start. I'm sure we'll get down into some details, but it's worth looking at the bigger picture initially I think. There are four areas really that we are preparing for a default in, going across the page from left to right.

So the first one where we concentrate typically a lot of the conversations is what are our financial resources? So obviously we have to maintain sufficient resources so that in case of a default we can absorb the losses of the default portfolio and also liquidate the default portfolio. So that's where a lot of the focus of our risk management framework lies.

Also more and more we're focused on liquidity, so part of our preparations are making sure that we have sufficient liquid resources to meet our daily cash payouts required during a default, and particularly we're focused on that first day of default. So just to put that in context, if a CP is to default to the clearinghouse because of a failure to pay, they would miss their payments at 9:00 in the morning New York time. We as a clearinghouse then would have 1 hour, until 10:00, to pay our euro obligations on behalf of that defaulted portfolio; and then a further couple of hours, until 12:00, to pay our USD obligations. So we really have to have enough liquid assets available so that we can meet that first day of default obligation and that's part of what we look to test in our drills.

So the second area in which we're preparing is really around our processes and tools. So the first one of these is what we're focused on probably a lot of the time today, our default management plan. This describes how we as an organization will work together to address the defaults and also how we'll work with our clearing participants, with our regulators, with our vendors. So there are a lot of moving parts involved and there's a balance to this plan in my mind. On one hand you want the plan to be as prescriptive as possible so that it's fully transparent. Everyone knows exactly what to expect, how we'll use the funds, how decisions will be made. On the other hand, you also want to have flexibility so that the clearinghouse is able to respond to the facts and circumstances of any particular default that may be unique in nature. So you don't want to be hampered by very specific rules. You need some flexibility to make some judgment calls. I think that's the art and science of developing the plan.

The second part of the processes and tools obviously is the tools. So there are two major components of managing a default, as I'm sure most of us are aware. The first one we basically when there's a default we hedge a portfolio or have the option of hedging. We need to do this very quickly and then execute the hedging trades. There likely won't be so many hedging trades, but the piece here is to respond very, very quickly.

The second element we need tools for is for the auctions. So this is just really an operational, logistical, issue to face. If you think about what the scale of this task is, we can have multiple auctions. Each auction can have multiple subportfolios. For each subportfolio, we have to collect separate bids from, in our case, 30 or so CPs. So you're talking about many hundreds of pieces of communication, collecting bids in, making sure that you receive and process them correctly, and then communicating the results out to all the CPs. So really, in terms of the toolset, we try and develop -- you need automation to do this and that's what we've been focused on really, providing automated tools to reduce the operational risk of this practical issue of running the auctions.

Another element that we have to consider internally is we have default waterfalls and liquidity waterfalls, so we have a certain set of rules around how we can use our different resources and in what order. And we need internal tools to track how we're consuming our default resources and making sure that we're following those rules. And when you consider things like juniorization of guaranty funds, which are dependent upon how people bid in the auction, it's kind of a dynamic process that you have to follow to make sure that you're using your resources appropriately.

MR. KLOET: Ian, can you move your mic closer to you. I'm not sure everybody can hear. There's people in the back and the audio people won't be able to hear.

MR. SPRINGLE: So as part of developing these tools it's also important that we develop standards for information exchange. So that's another area that we've been focused on, and we're focused on in our testing. We develop standard file formats so that we can provide our CPs in a standard way with the portfolios that they've got to price. We agree on standard bid formats for collecting bids on those portfolios, and we establish standard formats for providing the awards back to our CPs. So from a CP's perspective, you can imagine they may be dealing with several clearinghouses at once trying to price portfolios not just from ICE Clear Credit, but other clearinghouses of a multiple-asset type. So it's an onerous task for them, and we try to make that as easy as we can and as standard as we can.

Finally, I just wanted to mention another way that we're preparing for default really is in exploring additional elements of the actual default management plan itself. We try to innovate and include the latest thinking. There are a number of enhancements that we're currently contemplating that will improve, especially around resolution and recovery, and also providing the buy-side opportunity to bid directly in our auctions.

So the third component in our preparations really is our management information systems. Here it's important obviously that we provide the information that everybody needs to make the decisions around risk and the auction splitting in a timely fashion. So we have systems internally to provide the risk pricing, all the basic information from the clearinghouse, in a timely manner in real-time views through our systems and also through our end-of-day reports.

But there are also some practical matters to consider just in terms of the contact information. There are literally hundreds of people within various organizations that we have to make sure receive the information around the auction execution, and we have to maintain that ongoing throughout the year, not just in the default management tests.

And, finally, around the hedging, in order that we can respond in the timeliest fashion to put on these hedges or consider the hedging of the portfolios, we actually compute our first order hedges every day automatically, which provides some transparency to how we're calculating the hedges as well as a timely execution.

The fourth component really then is around the testing itself. The first point here is we have an industry test that we hold every year, which includes all of the stakeholders that we've mentioned already. We really run through the end-to-end process as much as possible. I'll speak about that a bit more in a second. But we also have internal ad hoc tests throughout the year. For example, the Treasury Department has to test its liquidity facilities that it might have or test its credit facilities that it might have. And also I would include in our preparations as stress testing and back testing for our funding and also for our liquidity. So we focus on that throughout the year as well.

So that gives a broad view of how we're preparing. I just wanted to touch on a couple of points that I made here in a bit more detail.

The next slide -- I'm on slide #3 for those who aren't in the room. So if you look on the right-hand side of this slide, it's worth just setting in context our default waterfall, which is similar to a lot of the CCPs that we have around the table. So we have a funded and unfunded component.

In the funded component we have initial margin that we collect from our CPs -- this is the first element that we can use in a default -- and then we have the guaranty fund of our defaulted CP. So we use the defaulted funds first. We then have two elements of ICE skin in the game. The first one is the $25 million ICE priority contribution, which we use before the nondefaulters' funding, guaranty fund. We also have a pro rata $25 million contribution, which we use prorated during the consumption of the nondefaulters' guaranty fund.

We also have an unfunded component where we can call if we run out of funded funds for one times the guaranty fund contribution prior to the default for additional funds. Importantly also in terms of liquidity, the idea for our liquidity tier -- I won't go through the detail here -- is really that we have enough funds on hand in a liquid format or cash format to cover our expected or maximum day 1 obligations of the default, and then enough in assets that we can liquidate within one day to cover the subsequent days' obligations.

We also have a concept of a liquidity waterfall where we can use the cash component of tiers of the default waterfall that are later on. So, for example, we can use the cash of the nondefaulters' guaranty fund so long as we pledge the noncash collateral from the defaulter's portfolio. So it's an opportunity for us to make sure we have the most liquid resources that we can. So that's how the two waterfalls work.

If you look now on page 4, ICE has developed a unique model for CDS clearing, which is really beyond the scope of this discussion, but I just wanted to point out a couple of items to put the resources in context. First of all, in our initial margin model one of the main components is the spread response requirement, and this is based on a five-day, 99 percent, quantile level. And secondarily, in terms of our guaranty fund, it's designed to provide funds for a cover 2 protection looking at the largest uncollateralized losses under extreme, but plausible conditions, and also at three simultaneous defaulting reference entities. So the net effect on the right of the page is really that we have substantial levels of funded resources based on the cover 2 requirements.

So at the end of the year it was $17 billion in initial margin, a guaranty fund of $2 billion, and then the ICE contribution of $50 million. In addition to this, we also have significant unfunded resources, which cover beyond the cover 2 scenario. So any depletion of our funds is likely to involve several more than two defaulting CPs at the same time, which is really in history kind of an unprecedented event. So it just sets the event that we're dealing with in some context.

MR. WETJEN: Ian, on the bullet point there, what exactly do you mean when you say "the default of three or several of the world's largest institutions in addition to the cover 2?" What does that mean? Are you talking -- are you suggesting that you're meeting a standard that's like cover 5 or something? What exactly does that mean?

MR. SPRINGLE: Yes, the funded contribution is based on the cover 2 requirement, so that's how we scale our funded funds. But then in addition to that, you have the assessment rights. So really we have more resources that you could argue than the cover 2 requires and also just looking at some of our stress testing results. Typically we see that it would require more than the two CPs defaulting to deplete our funds even under some very extreme scenarios that we use in our stress testing. So we're confident in the level of the resources.

On the other hand, it's an efficient model that we have, which provides for portfolio benefits as well. So we try and draw the balance. But, yes, we may have more than the cover 2.

MR. KLOET: Ian, why don't you go ahead

and continue and finish and then we'll take questions after that.

MR. SPRINGLE: So given the time, I'll just cover the plan that we have on page 5 for default management, which is really if you think about it, these are the elements we would test in any default test. So we cover both at the same time.

So really there are two phases. The first one is a very quick phase. We have to complete all these tasks in about 3 hours. The declaration of default process really -- we monitor and prepare for the default, so it's unlikely that a default event will happen without anybody being aware of the event. There's some credit monitoring that we perform overtime leading up to the event. Importantly, this will likely give the clients of our CPs an opportunity to pull any of their positions ahead of a default, and we would work with them to facilitate that.

Secondarily, we then have to demonstrate that the default conditions are met. There are several types of defaults, such as failure to pay, bankruptcy and suspension, so we have specific rules that we test in ICE Clear Credit to make sure that we're accounting for all of those different types of events. We then have to obtain the appropriate approvals. There's kind of a hierarchy of levels of authority that we have to be able to achieve in a small timeframe, ranging from an eligible officer of ICE Clear Credit, to the Chairman of the Board, all the way through to a majority vote from our Board. So we also test those components in as near real time as we can during our tests. We then have the ringfencing of the defaulter's portfolio, so we make sure that the defaulter cannot clear any further positions, cannot contribute to our pricing process, and then we have a communication out to the public and to our CPs and to regulators.

The next two components, funding and activating our Default Committee, happen at the same time. The funding really as I spoke about is making sure that we liquefy any assets that we have so that we can meet our payment obligation deadlines and then look forward to subsequent days of the default to make sure we have liquid assets at that time.

And then we have the Default Committee, which consists of three traders from three firms who come into the ICE offices to consult with the risk department around the hedging and liquidation of the portfolio. So during our tests, we actually invite them in and check that they can reach our offices within an hour to participate in the testing.

So by 11:00 of the day of the default basically we've seconded our traders. They're at our offices. We've liquefied our collateral and paid our obligations. And then the focus really on the remaining days is on the hedging and liquidation.

So on the bottom of this slide the first part is the hedging, which we've already really spoken about. But I just wanted to mention the porting. So under our rules we have the discretion to transfer the positions of a defaulted FCMs' client portfolio of the nondefaulting clients to a nondefaulting FCM or one or more nondefaulting FCMs. This is another component that we try and incorporate in our tests and we have done in two prior tests. Part of this porting is also to negotiate with the trustee. So in practice we're going to have to talk to the trustee to understand how much of the initial margin and how much mark- to-market margin the trustee is willing to pay on behalf of the defaulting FCM and that will obviously take some time. And we also in choosing the FCM that we can port to have to consider the impact from a risk perspective of moving those positions to the FCM and also the impact on the remaining portfolio that we'll have to auction. But that's something that we would do on behalf of our clients. And then the final component is obviously the auction. I won't go into any more detail because I know I'm running out of time here.

So really I think that covers most of

our broader introduction. I think my colleagues probably will be dealing more with the mechanics of the actual default test, so I'll leave it to them to go through that.

MR. KLOET: Thank you, Ian. I know there are questions on Ian's presentation. What I'd like to do is have all three clearing CCPs present first and then I'll open the floor up for questions. So with that I'm going to go to Sunil Cutinho from CME.

MR. CUTINHO: Thank you, Tom. This is the first time I've heard somebody call a white person with an Indian name -- Sunil -- that was good. That's the joke for the day.

Before we go into the details of default management, I just wanted to set context. I think if we all start repeating what Ian has just presented, it will make for a very boring day. So let's start by just taking a step back. What are we trying to do in a default management process or when there is a default? There are two things. One is restoring a matched book as far as the CCP is concerned, and the second is we cannot forget -- I think Ian covered that as well -- is porting the nondefaulting clients to a solvent FCM, another FCM. So those are the two big things to take into account in addition to other considerations.

Another important aspect of default management, as Ian pointed out, is the preparation before there is a default. These events are not instantaneous. There is credit deterioration. There are issues that happen before the onset of a default. There are, of course, surprises, but it's very unlikely from our experience that that is the case. So active monitoring, monitoring of risk, and actually a little bit of contingency planning when it comes to the customers, are very important aspects of default management before the onset of a default. You can start working on customers and porting of customers immediately and as soon as practicable rather than waiting a few days. So I don't want everybody to take away from this conversation the fact that these are events occurring in a sequence. We can actually port customers while we're also performing the auction on the house book.

With that I just wanted to give everybody a sense of the experience that the industry has had, and we particularly have had, with multiple defaults that have occurred in the past and there are four key things that we take away from that.

I think the first one is one size doesn't fit all. Market structures are different when it comes to liquid central limit order books, transparent markets versus an over-the-counter market where pools of liquid -- there are multiple pools of liquidity, but there's no centralized pool. So there are differences in how you construct or how you manage auctions in both those situations. In both cases it's important that there are no structural limitations to participation because when it comes to a default auction, our goal is, especially for the house book, our goal is essentially we want bidders --

the more bidders, the better price. At the same time you have to balance that with the number of participants and how much information gets out in the market. So those are the two things to take into account, and we take that very seriously.

The second thing is customers, porting of customers. There is a lot of experience on this. There are different types of porting. Sometimes if there is a shortfall in the seg funds, which was the case in MF Global, it gets complicated. It is not about -- LSOC doesn't solve that problem. This is a shortfall. This shortfall was not driven by a customer default, but there was a shortfall. In such circumstances, there are things to consider. There are bankruptcy rules. You're dealing with a trustee, and you're dealing with what can be done and what cannot be done. We had to take the step -- because we take customer protections very, very seriously, we put our own capital down to give the trustee confidence that we want to move our customers to alternate firms as quickly as possible because markets are moving and we want these customers to participate in those markets and have as much of their collateral as possible in these circumstances. So that is something to keep in mind as well.

The third thing is the importance of default drills. I think we're all going to speak to it. The default drills is not one size fits all, but there are a few common things that we'll cover in the next few slides that are important to reduce operational risk, to reduce misunderstandings, and to actually broaden participation. There are a set of things that we test there, as Ian pointed out, incentive effects on how to make sure that auction participants are incented to actually make good markets and what are the consequences if they participate, but they make bad markets.

Coordination is an important point. Coordination is not just between derivatives clearinghouses, but we have to think of the security side of the world as well because market participants -- when we talk of a default, these participants typically are also broker-dealers and they participate in the equity markets, securities, and also options. So it's important to take that into account. Coordination is very important, coordination from many perspectives. We'll cover a few things as far as coordination is concerned, but I think there is work to be done as far as coordination is concerned.

So with that, let's go to some best practices that we think will help us along the way, will guide us when we think of default management.

MR. KLOET: Sunil, if you could also speak up into the microphone so that everybody can hear.

MR. CUTINHO: Ah, this is the first time somebody has shown me I'm not heard. Thank you.

So I think as far as best practices are concerned, it's important to take into account market structure. In our experience for liquid-listed markets, buy-side participants have participated successfully and they've been aggressive and they've won the auction. There are no restrictions. It's important for the clearing firms of these buy-side entities to be aware of the fact that they're participating and they should know the risks that they are taking on, but that in and of itself is not the only tool because there are markets. So there is a broad array of tools for these markets to actually resolve the auction.

When it comes to over-the-counter markets, the markets are still evolving. We talk about market structure; that's your next panel. They are still evolving, but CCPs when they started clearing these have instituted a process where generally participation in auctions is an obligation for clearing member firms or clearing participants, whatever you want to call them. The reason is that these clearing member firms have to have the wherewithal to actually liquidate these portfolios when their clients default as well, so they have to have this capability to get into this business. So having them actually participate in auctions and having that as an obligation is a good thing, but there are also incentives associated with it.

Despite that, I think structurally we should not limit buy-side from participating because when you talk about a default, you don't want to place limitations on how many people can bid. But these relationships cannot be struck at the eleventh hour. We should invite them to participate during the drill process so you establish a relationship, and they also should understand that there are certain obligations that come along with participation and the auction.

I think a few weeks back or a week back, I'm losing track of time, there was a discussion about what are the appropriate incentives to make sure that buy-side participants do not abuse this process. The thing to keep in mind is that even the incentives that we talk about as far as clearing members are concerned, there are incentives for participation, but essentially even if you have an auction where there is one winner, there are a few people, other people, who have seen the activity, who have seen the portfolio. So abuse is possible and it's not just limited to buy-side. It's something that you have to address across the spectrum.

So the way to address that is auction participants should know that participating in the auction comes with the possibility that their activity, prior to the auction and after the auction, is auditable, can be reviewed. So that in and of itself is a good way to ensure that there is no abuse post the auction.

So the other things we talk about, Ian covered some of it. There is macro-hedging. You think about hedging and a default -- when there is a default and a firm fails to pay typically early in the morning, let's say at 8:30 New York time -- they're supposed to confirm settlements and the settlement bank says the firm is no good -- at that point in time there two things. One is the CCP has to have liquidity to make the payment, so the liquidity facility should be sized to cover that instance and that should be tested very often, drawdowns and things like S- draws, that's one.

The second thing is in that very, very short period of time immediately following that event, the most important thing is macro-hedging. So it can be done by a CCP itself using very liquid markets, liquid tenors, even for OTC markets, to make sure that we reduce the risk as much as possible from a mark-to-market perspective. The Active Default Management Committee and others who come in later on is to further reduce the risk, the threshold. To give you a sense of that is the margin, so margin pre-hedging and margin post-hedging. So the goal is to reduce margin as much as you can and its mark-to-market as much as you can -- let's say 90 percent is a good threshold example -- but then you have to balance that with a cost. How much money are you going to spend hedging? So those are some considerations CCPs make and it's being tested. That's the whole point of testing, and we'll come to testing a little bit in simulations.

I think Ian covered this. The collateral that a firm has -- the purpose of a liquidity facility is to actually get liquidity without having to actually go to the market with a lot of collateral and get a poorer price for it or move the market by liquidating the collateral in a very short amount of time. The liquidity facility buys you time. The collateral should then be liquidated. There are liquidation agents who actually do this, and we should test this very often. That's very important for CCPs to do that.

And the idea is once you've gradually liquidated the collateral as needed in order to make sure you pay the variation margin -- and even in an auction sometimes, something to keep in mind, is that, as Ian talked about, a liquidity waterfall. Sometimes auction participants are fine taking Treasuries rather than cash as value because what people are actually bidding is how much money would they want from a CCP to take on the portfolio. Slightly different from valuation; valuation is a component in it, but what they're bidding for is how much money or margin would they want to take on the portfolio.

And we spoke about porting. The importance of porting is it has to start simultaneously. Contingency planning is very important. Here, too, and there is a little bit of coordination with other CCPs that is important because customers that are coming through that failed firm and clearing at a CCP have activities at other CCPs going through that very same firm. So they could be trading the products in such a way that they are settling with that firm on a net basis. So when you port them, you port these clients, and if the two CCPs were to port this very same client of very different firms, then automatically the client is settling on a gross basis. So it will impact the client. So coordination becomes important when thinking of clients and porting.

We talked a little bit about

coordination. We have actually conducted a drill with a major CCP in the U.S., and we intend on continuing that with other CCPs. Our goal is several-fold: Joint exercises, coordinating, especially when getting traders who are seconded from those firms, from the clearing firms, empaneled firms. We have to make sure that when a CCP empanels a clearing member that the same firm is not empaneled to participate at another CCP for the same product set. That will be a draw for the same trader from two places. That is what we have to avoid and that's a second important point.

The third one is the risk that a clearing member has is diverse. It will not be the same direction at all CCPs, so you have opportunities, so, essentially, how you deal with such situations because you can get a very beneficial outcome if you coordinate your auction actions with the other CCPs in such a scenario.

I'm not going to go through all of these bullet points as far as preparation for the drill, but I'll just talk about a few things. First is it's important for the portfolio -- the construction of portfolios is very important. It's important to construct portfolios in a drill that simulate risk, difficult risks to auction. So you want to actually test the limits of your auction process, so the construction of the portfolio becomes important.

The second is the environment in which this portfolio will be auctioned. So you cannot choose the current environment. If you choose the current environment, the market environment, then you're only testing the operational aspect of a default. You want to simulate a stressed environment. So it will be good to take a period in 2008, maybe post-Lehman default, a small period of time and that is just basically for certain markets. It's not the same at cross markets. So you can look at crises in energy markets around Enron and things like that. So those are simulations. So that simulation is important. It's not just at the day of the auction; it is a week or two weeks post the default date. So you get a sense from your traders and from market participants who are participating in the auction that this is the world you're in. What are the prices you will contribute in this auction? How would you participate in this auction? That's very important. And for the CCP it will give a sense of the size of the variation losses, the hedging, the challenges. It will give a sense of the challenges.

Because you choose a simulated environment and you choose a simulated portfolio, you have to actually prepare every participant to be ready to participate, prepare the tools that take into account the situation.

I'll just skip to the last two slides, so I'm conscious of time. In the last two slides I'd like to cover a few things. We think it's important to cover a drill twice a year. Please don't take this as a race between once a year, twice a year, and all of that. The reason being there are many diverse asset classes, so things that we have to test is a participant that defaults, a large participant that defaults, will default across markets. So you want to coordinate. If you have multiple risk pools, multiple safeguards packages, then you want to simulate a default across them so they will default to all of them. You also want to -- and we talked about the coordination standpoint -- you want to also coordinate with other CCPs. The important thing is testing of the systems, the communication. I think Ian covered that. It's important to know your participants. It's important to know your clearing members in good times, so that in bad times you're not searching for these people. And it's not just one person, it's the team. Who are the traders who are participating, not just the head of the firm -- and the risk team, not the least to mention.

The other thing is bidding incentives. Structuring bidding incentives is something that you have to test. How will this bidding incentive work? And you have to also share the results with these firms.

The resources -- I don't want to go through it. I think all of us have clean rooms. They're audited, making sure that these things are tested often so there are not surprises. We know where the traders are going, and we know the environment they're going to work within. We know all the tools they're going to have and how they're going to operate within that.

We were just talking about a timeline, similar to what Ian covered. Day 1 of the default is all about macro- hedging and hedging as much of the risk as you can. The balance is how much margin are you going to consume. The ADMC is the Active Default Management Committee. There is a committee that will give you guidance, but the Active Default Management Committee are the traders who are seconded and they are the ones who are going to participate. The reason -- and I know there's been a lot of criticism on this, but it is a very important thing for over-the-counter markets because the resources that you need, you need to have expertise in these markets and these resources cannot be just hired and kept in reserve just to participate in a default if it happens. None of these resources will stay. In order to have them keep pace with the nature of the markets, the state of the market at the time of the default, you need to draw these resources from the participants in the market rather than hiring them, keeping them in reserve. So that's important to keep in mind. Coordination is a way to solve for avoiding a double draw on these resources or having them not show up.

Day 2 to day 5, this is mostly for over-the- counter markets. To give you a sense -- I keep pointing to the difference. In our experience for listed liquid markets, we've successfully completed auctions within a few hours on the day of the default, so that's why, because of the nature of this market structure. You know over-the- counter markets are diverse pools of liquidity and then they're also bespoke products. They're nonstandardized. So pricing time and auction time are slightly different than for listed markets.

So for day 2 through to day 5 it's all about auctioning a hedged portfolio. There are different types of auctions. It could be simultaneous auctions with multiple portfolios or sequential auctions where portions of a portfolio are taken down. There are different styles of auctions -- Dutch, modified Dutch, things like that -- and they all depend on the structure of the portfolio and the nature of the market, so that's to keep in mind.

So in the drill there are two things. One is you want to have a process that notifies the winners that they've won the portfolio and at the same time you also want to show every participant how the bidding incentive played out, so the hypothetical impact of their bid on the seniorization of their guaranty fund contribution. This is in situations where clearing members are obligated to participate.

We talked in general about cost of default management. Things to review post-drill are monitor throughout the drill and review post-drill. What is the cost of hedging? What does a variation margin cost? What's the auction cost? And what are the assumptions? The thing to take into account is all these three costs are an important input into the margin model, so there are aspects of the margin model. Most people think in very simple terms about how much margin is it for a single trade or for a small portfolio, but margin models have concepts such as concentration margin and liquidation triggers where margins start to scale up significantly. So these triggers are tested to make sure they're adequate. Think about what the test is. The test is testing the performance of the auction in a stressed market.

That brings to an end most of my presentation. The one last word I would have is that I think automation to an extent is very good. Standardization is good, but it is product specific. And there are two aspects to this -- I've talked about it -- valuation and bidding price. Valuation is essentially making sure everybody knows or has a similar value, so valuation is tested periodically. Mark-to-market is all about valuation. But it's important to also test valuation in a stressed market, so testing valuation is an important part of a default drill to see how people value portfolios and to see how far different firms are.

The second thing is the bid price. The bid price essentially is how much margin people want, and the bid price will tell you what is important for the incentive effects, how they're testing the incentive effects that are structured for the default.

And then as far as technology is concerned and infrastructure is concerned, it's very, very valuable. And having similar tools across CCPs may be valuable as well because when these auction participants are interacting with a CCP, it's good for them to interact with similar tools. So we worked with another major U.S. CCP to double up our tools.

So, thank you, and I'm sorry for going too long on this.

MR. KLOET: Thank you, Sunil. And Dennis McLaughlin from LCH.Clearnet -- we'll have your presentation next.

MR. McLAUGHLIN: Thank you for the opportunity to be here. There is a presentation, which I understand is going online at some point soon. But rather than delve into it because of the two excellent presentations we've just had, I'll just start off with a few --

MR. KLOET: Dennis, if you'd just move your mic closer and speak a little louder.

MR. McLAUGHLIN: So I'd just like to make a few comments because we do a very similar process to the other two CCPs that have just spoken. But I think that we also focus very importantly on the coordination aspect of what's going on because when a default is imminent or happening, a lot of people who normally don't talk to each other suddenly have to be contacted and communicated with and the structure of how that's done is quite important.

So you have regulators. You have the press. You have members who have to be notified. You have the defaulting member who has to be notified of what's going on. Lots of things have to happen in a very coordinated way according to a very strict timeline. So the people have to get reports that they don't normally get. There need to be processes that are not normally part of the business as usual away from a default. So to the extent to which we can automate most of that and get rid of the potential for manual errors is very important.

So our focus is really twofold. On the risk management aspect, of course, we're doing everything that we can to ensure that we have enough margins collected, et cetera, and doing everything that we can to make sure that we understand the credit quality of the member as it's approaching default and the alarms are set off, et cetera, but we're also doing everything we can to understand who needs to talk to who when there is a default.

So let me just highlight a couple of things that are different or potentially slightly different from the other CCPs that have spoken. The first one is on client porting. So we recognize the fact that if the defaulted member has a lot of clients, that's a big operational issue to make sure that they're all ported correctly because a lot of people have to be communicated with. So for that very reason, we actually hold an additional two days' margin to cover that period because if there are no clients, that's fine, you can deal with the closeout. But if there are clients, you certainly can't deal with it -- there has to be a nonzero time added to the margining period to cover that, so we allow two days for that. And we hold additional margin just to cover for the headache and the time wasted to try and figure out how on earth we can deal with a large number of clients to be ported. That's quite a large undertaking and it can be very, very onerous.

The second thing is that we also started to look at for the first time losses that could arise not from the clearing side of the house, but from shall we call the investment activities. You may have a counterparty to our Treasury portfolio activities who defaults. Now, if they're a clearing member also, that creates a big problem. But if they're a nonclearing member, we don't have as much information on them as if they were a clearing member. We can't see their trading patterns, et cetera.

The other thing that we have to realize is that any problem with the trading activity on the margin investment goes straight to capital. There are no default funds in the way so to speak to protect or there's no margin in the way. It's just a straight loss, a straight hit, to capital. So we're very focused on running nondefault loss fire drills, which means outside the clearing service on the actual investment of the margin themselves. If we have a problem, how are we going to deal with that? What's the strategy for dealing with those kinds of issues?

The third one I want to bring up that's probably different is the fact that we also look at our interactions with the settlement platform because if we're having a cover event, the settlement platform also is having some kind of major trauma happening to it. So we want to know how the interaction back and forth, the flow goes back and forth, with the settlement platform. Are trades still settling? We don't know. We want to make sure that that's happening. That's what I mean by the coordination emphasis that we put on the activity.

As far as other CCPs are concerned, we haven't gone down that road as yet. We do think there's potential to do that, but I think there needs to be some kind of framework to interact with the other CCPs because you can very quickly get into competitive concerns here. Because in a default situation, if we have a member in default, the chances are that the same member in the other CCP is also in default. The issue is that we might both have portfolios that are long, so i.e., similar portfolios. We can't offset them. We can't net them. We're actually competitors then because we both own at that stage. We own the defaulted member's position, so we're in competition in the market. The reason I'm bringing this up is if that were to happen, unless there's a very tight structure in place, the chances of dealing with legal action later on in the process from the trustee of the defaulted estate, can be quite high.

So I think there's a role for the regulatory community here to try and come up with some sort of way for CCPs to interact. Now, I do think that they can interact in a straightforward way in terms of things like do we have overlap in the default management group. So if there was a default, are we sure that we can get the right people in the right room at the right time and that we're not competing for very scarce resources in terms of just the operational aspect of the default.

So that's just the few words to start with. I'm not going to go through all this presentation because, as I said, it's very similar activities to what has been discussed earlier. I would say that we do look at the design very carefully of the default management fire drill. We're looking at all end-to-end processes. The timeline goes pre-default all the way through default to the final calculation if you like of the losses and the communication of that back out to the members. We look at the types of exposures that should be involved in the design of this. We're looking at obviously LSOC concerns. We look at different kinds of people who are involved in the exposure process in terms of calculating the exposure process. So, for example, we can have interdependent relationships between clients and members that need to be analyzed very carefully as we design the process of what happens in the fire drill.

Just to give you some sense of what we're talking about, we have approaching something like $100 billion in terms of financial resources spread over ten default funds. So that is a lot of assets and a lot of people that we're talking about. So obviously the extent to which we can control and structure that process is quite important. That's what I mean by the operational processes that we need to focus on. A lot of the issues can arise from not so much the financial resources, but from the fact that you don't have somebody's phone number. You don't quite know where they are. You don't know who to contact to get them in the room. That has to be all preplanned and sorted out beforehand.

The other thing we look at is the stages of the default waterfall that we need to test. So in some fire drills we've tested different stages, particularly as of late we've started to test when you have the unfunded calls that you make and when you're digging deep into the default fund, you start to test that procedure, which is shall we say not as established as the normal funded default funds procedure.

So we're looking at a lot of moving parts here, so coordination is actually key. Just to give you a sense of the coordination problem again, we have to look at all these lines across the page in terms of people who are involved aside from the individual services that LCH.Clearnet has. So, obviously, there's a default management group that has to be convened. Risk is involved. Legal is very key in this whole thing because you have to know the exact grounds on how you're moving in terms of taking action. Do you have the right to take this action, et cetera, et cetera? What are the rulebooks saying? Compliance is key as well. You have to know that you're within the regulatory rules when you do something.

I would just mention collateral and liquidity management is very important here because we need get instant reports from all the products as to how the jigsaw is coming together in terms of what are liquidity needs shaping up to be. This is what I meant about people who don't normally worry about these kinds of reports.

Suddenly you have to have an automated process to get these reports to you rather than working with manual spreadsheets on the day of the default and dealing with the misinterpretation that may happen if that's the case.

Collateral operations is very key because we need to know what collateral we actually have, what's actually come in. Have we turned off the collateral or what has settled so that we know exactly where we stand? We can't be working off yesterday's file. We have to have the most up- to-date information as of the time of the default.

Communications is very, very key because we have lots of stakeholders here. A lot of people, and a lot of preplanned, shall we say communications, have already been drafted that are ready to be sent out should the default happen. We all have now lists of people to call, the numbers, what to say when we call them, and the communication that we then give to them to inform them what's going on.

Regulators are invited as well to attend our default fire drills to see what's happening. Certainly our primary regulators are involved in many of them, but we have many examples of regulators who are secondary regulators who come in as well to see what's going on.

By our policy we must have one group-wide default fire drill every year, but as I said we have ten default funds. So each default fund will have ad hoc fire drills throughout the course of the year, but we need to be able to ensure that we can stitch everything together. And when you stitch it together, the fact that normally people who aren't talking to each other are now suddenly talking to each other, what happens is we need up-to-date, real-time reports on where we are relative to the defaulted member's resources. So have we used it up yet, or how are we using it up, and how much have we used up. And to the extent that we're starting to invade skin in the game gives us a sense of how successful we are in dealing with the default. So that's the planning.

The execution I think is pretty similar to what has been said, so I'm not going to go in there.

I would say, finally though, the evaluation phase. So you do this default fire drill and so what? Well, of course, when group risk plans out the things to test so to speak to make sure that we hit the sore points, that will give us a scorecard if you like of the things that didn't quite work. This scorecard is taken by audit to the Board and that ensures that there's absolute focus on remedying these issues because there's no point in running a fire drill if you don't learn anything from it. So I would say that it's a very disciplined exercise.

After all, we've been around as a company for I think 170 years or so, but it's really only in the last 10 years, in the last 5 years particularly, that the science of how you run a default fire drill has changed pretty dramatically. And I would say that we're finding that the operational part of this is absolutely key because the traditional CCP was always focused on financial resources. This is something else. So we're just dealing with a very complex world that we probably haven't been used to dealing with and this is the evolution, the next step, so I think things are moving on.

I think that's probably enough because the other people have probably said everything I need to say. Thank you very much.

MR. KLOET: Thank you very much, Dennis. We have run well past what I thought we would run in terms of the time on this, although to be very frank, this sets the stage for some of the important discussions we have to have. So I did intentionally let it go a little longer because I think as we think of this committee as an iterative process, this really very well sets the stage for a number of discussions I think we have to have.

What I'd like to do is I know -- Kristen, you had your card up and I want to give you a chance to ask a question. I think it was you who had your card up first. I'm going to take two questions and if I can limit it to questions directly related to the CCP's plan. I'm going to ask you to hold comments on it because while I do want to engender comments, I'm going to come back and ask for comments later. I have a series of questions I'd like to go to about what a real-life default scenario would look like because I think the plans themselves are very well laid out. The three CCPs have done an excellent job showing us those. But what I'd like to do is provide to the Commission some of the industry's thoughts on what a real-life scenario would be.

So I want to get into that discussion a little bit in a second, and I have a few speakers lined up on a few questions along that line. But with that said, I'll have two questions; if we can have the responses and the questions relatively quick so that we can get on to that further discussion.

Dennis, I'm going also plant a seed here that within the next 45 minutes I'm going to try to come back to as well. Dennis referenced in the middle of his presentation a suggestion to the Commission with respect to coordination. The last question I'm going to ask today for this panel is -- and it's a really important one -- is what should the Commission be doing? What can we ask -- the regulator is asking us as an industry to give them feedback. So I want everybody to be thinking about what thoughts we have that the Commission should be thinking about? I have a couple. I'm sure a whole bunch of us do. But where we add value is giving them thoughts as to what they should do, and I want to clearly do that before we get to the end.

So with that, Kristen, I'm going to hand the mic to you. Then we'll come over to you and then we'll go to some of the other questions that I articulated before.

MS. WALTERS: Thank you very much. My question actually refers to page 4, Ian, of your initial deck. So as an asset manager, clearly we're charged with managing on behalf of clients in a fiduciary capacity. We're not counterparties to these transactions, but it's our responsibility to understand at a highly granular level two things: One, the actual estimate of potential loss to our clients in the instance of default. In this case Ian has presented a case with simultaneous default of two clearing participants.

And second, to make sure that we understand the totality of the loss-absorbing resources of the CCP so that we can ascertain whether there is sufficient resources to cover potential client losses and to provide transparency to our clients to understand if they actually want to embed that risk in their portfolios or choose other options potentially off-exchange in bond form.

So, Ian, my questions are -- I'm looking at page 4 of your deck -- based on your risk-modeling results, what is the actual total expected dollars that you view would be required to absorb simultaneous default of two clearing participants? And how does that relate to the financial resources that you've listed on your page?

So you've listed initial margin of $17 billion, a guaranty fund of $2 billion, and ICE's capital contribution of $50 million, and I'm assuming unfunded assessment rights. In particular, what is the role of the $17 billion in initial margin with regard to absorbing losses in the instance of default? Clearly we view this as sacrosanct and something that would not be considered at all in the context of financial resources in the event of default beyond the IM of the defaulting clearing member.

MR. KLOET: So if I can just make sure I understand the question. I think you're asking a really great question. What's the risk of me as customer A within a clearing firm if it is customer B that creates the default -- or, I'm sorry -- clearing member A and clearing member B creates the default as clearing member A's margin at risk.

MS. WALTERS: It's actually a little simpler. So what is the total expected loss that's being modeled by ICE if two clearing members default simultaneously? What's that dollar amount and how is it derived? And two, what financial resources are available to absorb that loss and how would they be allocated? And specifically, I am concerned about seeing $17 billion in initial margin as a financial resource that ICE would use in the event of a default.

MR. SPRINGLE: So maybe I'll speak to that a little bit. So the initial margin component is the collateralization of the losses of each CP's portfolio under distressed conditions. The guaranty fund is then the uncollateralized. We look at the loss of two of the biggest CPs, biggest loss-generating CPs, and we look at what we haven't collateralized through our initial margin and then we hold additional funds for that. So the combination of the two of them is designed to address the cover 2 scenario that we have. So the $17 billion is a large number, but don't forget that that $17 billion is the sum of everybody's initial margin. So if there's a CP default, if it's one CP's default, it won't be $17 billion that we have. It will be one CP's initial margin. It's much less than the $17 billion that we have on the page.

So the funds that we compute that we require to address that cover 2 is the sum of the defaulting CP's initial margin plus the guaranty fund. And then we have an additional $50 million from ICE's contribution designed really to align the incentives of the clearinghouse in making decisions with those of the CP's. And then the assessment rights can be thought of kind of additional funds on top of the amount that we computed that we needed that we have in reserve.

So at the moment, for every defaulting CP, the expectation is that we can call an additional amount of the guaranty fund. We have plans in place in other clearinghouses. We limit that to three times the guaranty fund for three defaults. So we're allowed to call another amount of the guaranty fund from everybody up to three times if there are three defaults.

MS. WALTERS: So, thank you. Unfortunately, you didn't actually answer my question. I think we can take this offline, but I think it is very important, in fact essential, for the CFTC working with all of us at the table to actually understand this math. If two clearing members default simultaneously, what is the loss? If a loss happens, how is it absorbed? Who absorbs it, in what order, and what is the role of initial margin in that context, bearing in mind that any use of initial margin is going to have a direct impact on investor behavior?

I think as an asset manager we have kind of unique insight into this. So the extent to which there are issues with a CCP before a liquidity crisis occurs, as it is actually percolating our clients will close out their positions. Again, I don't want to take more time, but talking about this math is something that we have to do, all of us, whether we're a central clearinghouse, clearing members, and investors, buy-side firms.

MR. KLOET: I think I'd like to ask Bob to -- first off, thank you for the question because it's a great question. I agree with your call for some transparency and an understanding about this. Bob, I think you can add some important elements about how the rules work around this, how the regulation works around this. So I want to ask you to step in and comment on this.

MR. WASSERMAN: I should note that that $17 billion figure, that is simply not available. What is available is the initial margin of the defaulter. And I should note CPMI and IOSCO recently issued back at the end of February a quantitative disclosure framework that is going to require for those entities that are going to be compliant, or consistent rather, with the principles for financial market infrastructures -- and basically that is required in our rules for systemically important DCOs and those who have opted in -- to provide that kind of information and so you'll be getting those numbers. And so the cover 2 number really would need to be covered at least by the default fund plus the initial margin of the defaulter's assessments would be on top of that because you have to have prefunded amounts already there, again, limited to the initial margin only of the defaulter.

I will say a lot of times I've seen CCPs provide the total amount of initial margin they hold. It's a very impressive number, but, frankly, it's not really relevant.

MR. KLOET: Thank you for the clarity there, Bob. I think that's an important point. It gets at one of the hearts of the question because let's remember among the key things here is that the integrity of the markets is something that we have to make sure the system protects at all times. That's the most important thing. That's why we're here. Understanding that is important because I think Kristen is raising a good end user view on the exposure and what it would really mean if it weren't the case. Anat?

MS. ADMATI: Thank you. I do want to note that $50 million -- that's an "m" in front of it -- that's a very small amount in these markets.

So my question is quite related to the issues that already came up because we say a member and there are members and there are members. So there is MF Global, but there's JP Morgan Chase, and those are very different members.

So the scenario that we're talking about is one where -- you know, another duty I have, which is Advisory Committee to the FDIC on systemic resolution comes in. What exactly is the scenario for the systemic ones, which are kind of the ones we should worry about the most? Because in a scenario of their default, should we ever get there, which I'm not sure we'd allow, then it's far from unique in that particular scenario and so assessment abilities and other things should be questioned.

But I am concerned and I want comment on closeouts specifically and also on stay because I know the safe harbor provisions, and we were taking hours here to do this, but I think under FDIC Title II resolution, there is 24 hours of stay potentially and there was some action with ISDA about buying into that, which some did and some didn't, so they dispensed with the two counterparty czar. So there are a lot of details here that I feel must be ironed out when the particular defaulting member might be or is considered potentially to be before a default a systemic institution.

MR. KLOET: Thank you. I think that was more of a comment than a question, but if you have a response --

MR. WASSERMAN: Just a very quick observation -- well, two quick observations. I think when you look at who's going to be driving a cover 2 scenario and who's systemically important, in most CCPs certainly the larger ones. I think there's going to be heavy overlap there.

The second thing I would note very importantly is that the stay does not apply to payments to clearinghouses except insofar -- to the extent that if there's a failure of payment when due to a clearinghouse, the clearinghouse is permitted to liquidate without regard to that stay or rather as part of the provisions under Title II because, of course, it would be inconsistent with the nature of a clearinghouse.

MR. KLOET: Thank you, Bob. With that I want to move on to take a step in front of the presentations we just had and have a conversation about a couple of questions.

First, what's the most likely real-life default scenario of a significant clearing member? I mean in other words what would be the cause of that, and what would it look like? How likely is it that that default scenario of a significant clearing member would be escalated to that -- or isolated I should say -- to that clearing member; or alternatively, how likely is it that multiple clearing members and clearing members with multiple CCP memberships would be affected as well?

And, finally, another question I'd ask is what would be happening on the road to default? What would it look like on a path before a default?

So I think we have three people that I'm going to ask for some short comments from. First I'll ask Susan McLaughlin from the Federal Reserve Bank of New York to comment first.

MS. McLAUGHLIN: Thank you. Can you hear me okay? I'd like to thank the Commission for the opportunity to participate in this important discussion.

I probably will leave aside the question of what the real-life scenario will look like and let those closer to the day-to-day in these markets answer that. But I think it's likely a default of a clearing member would occur in a stressed market environment featuring elevated price volatility and reduced market liquidity. And the default could either be a product of stressed market conditions or could itself precipitate stress.

For this reason, CCPs and the regulatory community should do everything possible to ensure that CCPs are a source of strength and not instability in stress. If the CCP were able and willing to perform on the defaulting member's payment obligations to other CCP members, we'd expect the default to remain isolated to that clearing member. However, if a CCP were for some reason unable to perform on the defaulting member's payment obligations in a timely manner and in the expected currency, its surviving members would face liquidity shortfalls that would quickly trigger a cascade of failures on their obligations to their counterparties beyond the CCP, transmitting liquidity risk more broadly to a wider set of market participants.

A key public policy benefit of central clearing is the role that CCPs can play in mitigating systemic risk and contributing to financial system stability during a stress event by stepping in for a defaulted member to avoid the sort of contagion that I've just referred to. A well- managed CCP can serve as a source of strength and stability by mitigating the risk of contagion.

As part of this, it's really critically important that there's ex-ante clarity regarding the rigor and credibility of the CCP's stress testing and the quality and reliability of its liquidity resources. This is essential to build market confidence in the CCP's ability to manage through a stress event. If members lack confidence that they will receive amounts owed in a timely manner, they may not continue to make payments into the CCP. In extremis, this dynamic could depress new trading activity, undermining broader financial market functioning.

Similarly, if members and end users lack confidence in the robustness of the CCP's back-testing and stress-testing processes, they may doubt that the clearing fund is adequate to cover all credit obligations of the defaulting member during the transaction back to a matchbook. And they may pull back further activity from the

CCP in an effort to limit their potential losses, thus undermining market liquidity.

At the Fed, we scrutinize FMUs' default management procedures in our supervisory and oversight processes carefully, particularly with respect to liquidity risk management, to determine whether FMUs are adequately preparing to meet their obligations in a stressed context in which a large default or multiple defaults could occur. We want to see things like the underlying assumptions being appropriately conservative, not simply assuming the default is occurring in benign market conditions. We would like to see expected liquidity needs sized based on the robust stress testing. It's important that resources to meet intraday payment obligations to members are available whenever needed. The CCP should have a credible strategy for returning to a balanced book of positions through liquidation or auction of the failed clearing member's portfolio, and that there's a clear and transparent process ex-ante for allocating credit losses resulting from the liquidation of the member's portfolio among CCP members and end users. And these criteria become even more important when we contemplate the defaults simultaneously of multiple members.

Maybe I can hand it off at that point to my fellow speakers.

MR. KLOET: Thank you, Susan, for those important insights. Scott Flood represents Citi, and Scott, I'd like you to make a few comments as well, please.

MR. FLOOD: Sure, thank you. In looking at this, you had asked what would happen on the road to default. One of the things that we thought about is that we think it's going to be a very bumpy and uneven road. In going down that road, we think that a significant clearing member, if they default, that lots of other things are likely to happen in other markets and it will be a default across multiple asset classes, that all of the significant clearing members are also members of multiple CCPs.

We also should recognize at least at

this time that this clearing member is going to have activities outside of this market, so we're going to see a lot of activity in the repo market, for example, where there are also defaults happening. There is some market in uncleared swaps that continues to exist so there'll be bilateral defaults that are happening also at this time and defaults in other markets that are happening to this member that will cause stress and liquidity needs and liquidity dislocations in the marketplace at the same time.

We don't think that it's likely that this will be isolated, but it will depend a great deal on what kind of default and what the event is that has driven the default. We've seen all kinds of defaults over the last 20 years and that they have been in pockets and fairly unique. In some cases they're event driven, so they might be driven by a market dislocation like in 1998 with long-term capital where the Russian ruble affected multiple entities all at the same time that were directional in that view. And so it wouldn't be isolated in that type of situation. It could also be operational that could affect multiple CMs at that time. And also, as pointed out, there could be a lack of confidence that starts to bring to the marketplace where a significant clearing member that is defaulting could cause a lack of confidence in the marketplace, generally with clearing members of that type, that starts to promote a liquidity scare and a liquidity need that happens in the marketplace at that time.

We think that there will be challenges in valuations that are occurring at this time that will make potentially the investment management of the collateral a challenge. So there could be additional collateral calls on other CMs and that might accelerate other defaults that occur because of the liquidity and the drying up of liquidity at that time. So changes in variable margin caused by a stressed market, changes in initial margin caused by a stressed market, changes in the default fund as the default fund is being liquidated that calls for additional assessments in short periods of time could drive and actually cause additional defaults by other clearing members through their own liquidity needs and their liquidity drains that are happening in the markets that are emanating from the CCPs.

A couple of just quick things to consider: I think we heard very interesting presentations, and I think that there are additional considerations that we should think about. One of the things is there's a requirement that there are adequate traders that are available to do and to absorb all the valuations that are happening in the market needs at a very stressed time. And what happens if those traders aren't available or they're actually trying to resolve their own portfolios at that time and aren't available for secondment? So there could be a human resource drain that is also happening at this time.

The other thing is that there may be and there probably will be -- if a significant clearing member defaults, there probably also will be customer defaults that are happening also at this time that adds stress to the marketplace.

Just a few observations that I think: What could be helpful is uniform default management and coordinated default management here in the United States and with the European clearing organizations, and transparency on the stress as well as the default frameworks that we're using.

And I will pass it to Emily.

MR. KLOET: I'd like to ask Emily Portney from JP Morgan to come up.

MS. PORTNEY: Can you hear me? First of all, thank you very much for the opportunity to be present at this committee. I'm going to try to keep it very brief, too, and cover things that we think about as a clearing member. And we actually think that this committee, as well as all market participants, should be thinking about on the road to default as well as during a default or post-default.

So certainly in terms of the road to

default, I think my colleagues covered it well, that it can be an idiosyncratic stress event that ultimately erodes market confidence and puts a lot pressure economically on lots of market participants. It can be a stress on a single player, but ultimately that has some market contagion. So there can be lots of different reasons for it.

The one thing that we would like to call attention to is that on the road to default generally speaking something that CCPs would do, understandably so, is to impose trading restrictions on a member that they'd be worried about defaulting, increase margin requirements across all members, increase the frequency of margin calls, and probably also increase haircuts, all of which when you think about it are procyclical. So just something to consider, or we all as a market should possibly be considering, is just the procyclicality of these measures and, whether it's popular or not, definitely there should be more transparency in and around how these measures are set should there be some floors or minimum requirements on margin; likewise, minimum haircuts, similar to what's being applied to banks for the LCR; and some restrictions on actual collateral and what types of securities can be used as collateral. So that's on the road to -- I'm trying to cover things that haven't been covered -- but on the road to default, I would think about some of those things.

In terms of an event of default, so a clearing member is defaulting. The one thing we'd like to call attention to is the fact that CCPs do have very broad-based powers in terms of when it's within their interpretation or how they can declare a default. So, for example, it can certainly be insolvency and bankruptcy of a clearing member, which I think all of us would agree would make sense. It can be an appointment of an administrator or receiver, which I think all of us would agree would make sense, a breach of rules. Also, though, it can just be within their sole determination that a clearing member just does not have adequate operational or financial resources, or they feel that they are approaching a point where they won't have adequate financial or operational resources. It can also be because an affiliate of a clearing member actually defaulted when actually the member itself is fulfilling all of its obligations and performance. So the other thing we would just draw attention to is that at the point of default, CCPs have a lot of discretion. And each CCP is very different when you look at the rulebooks around what exactly is an event of default. You can easily get a lot of certainly confusion, especially if those clearing members are members across lots of other clearinghouses.

In terms of post-default -- and I'll just add a few comments because I think a lot of things have been covered -- certainly what happens we've all talked about. The secondment of traders to actually participate in default management and the auctions. I think everyone has called attention to this fact, but there is a potential human resource drain and, frankly, one of the things I would really highlight here is especially as less liquid products are being pushed into clearinghouses, whether it is swaptions or inflation swaps, the likelihood of not having enough traders to actually participate in the default management process could be a real issue that we have to think about.

When we get to liquidation or auction, something I would highlight is that every clearinghouse has a different bidding process; a different auction process; the consequences of participating, not participating are very, very different. So the consequences of a failed auction, very different. Is it invoicing back, allocating the positions? All of the things that we're talking. So, again, it's a lack of clarity and the fact that across every clearinghouse it can be very, very different. So if you're a large clearing member of many clearinghouses, you're trying to prepare for every possible alternative and option and that's hard.

Something we haven't talked about yet, but -- well, we've mentioned -- and, again, I think the clearinghouses have a good job of outlining their plans, but the things you have to think about are porting of positions. There's an obligation for all market participants to certainly help out and try to port positions. I will tell you that, especially in this environment when we think about just pure capacity nowadays -- and I'm not talking about operational capacity, but we're also talking about capacity in terms of balance sheet and capital -- we really do have to think about whether if a large clearing member or more than one went down, would there be another clearing member that actually could take on that book of business in light of the capital considerations that we all now have?

Liquidity we talked about. Certainly if the initial margin of a defaulting member should not be sufficient, you hit the default fund. And, of course, you have to think about what if the default fund itself, which is the funded portion as everyone talked about, is not sufficient? Well, then you move into things like assessments, which I think we've been very public about our view, especially given the size of assessments can be anywhere from 2 times, 3 times, or 5.5 times and this is tens of billions of dollars, whether they will really be there. You also move into things like payment in kind, variation margin haircutting, all of these things that just put additional liquidity pressures and funding pressures on all market participants, and we have to be thinking about that sort of thing.

And so for us, we would say think about the unfunded portion of this stuff. Do we have to move whether it's popular or not to some form of funded resolution plan at some point for a CCP if funded resources are not sufficient? So I would just highlight some of those concerns.

And the only other thing I would just say is I think we all talk about and we get a lot of comfort perhaps in like oh, we handled Lehman, but a lot has changed since 2008. Volume at clearinghouses obviously has increased tremendously. The number of market participants now participating in clearing has increased tremendously. Concentration of CCPs and clearing members has increased, so you have less participants and certainly reliance on a few. The interconnectedness of the markets is more. Obviously the same clearing members are members of all the same clearinghouses. We're talking about cross-margining. We're talking about open access. When we talk about -- we did mention that certainly some clearing members' affiliates are settlement banks and custodians. So if one of those clearing members is having an issue, they're likely having an issue all over the board. Likewise, most clearing members have affiliates who are responsible for providing all of the liquidity because of the new liquidity requirements for CCPs. So it's all circular and we should all be thinking about the interconnectedness, which is much more than it used to be.

I already talked about the capacity in terms of capital and everything else that we certainly have to talk about and that could impact actual, realistic -- whether or not portability is realistic. Likewise, there's a bigger move to less liquid clearing, less liquid products potentially expanding collateral. Fully understand why end users want that, but we have to think about what that actually means.

So from our perspective, and people have kind of already highlighted it, it's very much around further transparency, a bit more consistency perhaps, certainly more predictability. We do need coordination. We have to think about multiple defaults of clearing members and potentially more than one CCP and certainly minimum standards on haircuts, collateral, margin, and finally, CCP resolution. As terrible as that sounds, what happens if that should happen?

MR. KLOET: Thank you, Emily. Those are important comments. I'm going to take the prerogative of the moderator and make one comment. Referenced in the middle there somewhere were some important comments you made about customer portability. As I was listening to the CCP presentations, I have a personal view that I'll express that is that in the kind of scenario we're potentially envisioning, for the kind that we'd be concerned about impacting market integrity, it'd be my suggestion that customer portability will be anything but routine especially given the kind of capacity constraints you referenced, Emily.

Then add to that things like the various products that people may be carrying where they are hedging one asset by using the risk management products within the futures markets for them. And then continue to expand that scenario to be international in scope. So I would suggest that as the MRAC continues to evolve, Commissioner, I'd suggest that we spend a little more time on customer portability because one could frankly take comfort in the fact that yeah, it's all going to be okay and we'll take care of moving customers. But even healthy customers with good positions may be hard to place in the kind of volatility that we may expect to see in a significant default scenario. So I think customer portability would be something easy to underestimate the importance of.

Commissioner Wetjen, you had your card up. Are -- okay, Chairman?

MR. MASSAD: Well, let me just ask a question. But, Tom, I'll defer to your plans in terms of how you want to run this because frankly my question is something that I would like this group maybe to spend about an hour discussing at some later date, and that's to follow up on the issue of coordination between CCPs and in particular Dennis's comment about how that may be difficult given legal concerns, about possible legal actions by the trustee of the defaulted member.

I guess what I'd like to ask of the CCPs as well as others on the committee is to think about what are the objectives of that coordination, and what should we as the CFTC think about in terms of facilitating that coordination or cooperation?

MR. KLOET: I think that's a subject that we could spend a whole lot of time on.

MR. MASSAD: If you want to reserve that -- Sharon, if you want to reserve that for a separate discussion, I'm fine with that because we could --

MR. KLOET: Let the commissioners and me confer on that, but my initial reaction subject to -- she is the sponsor and I fully respect that -- but my initial thought is that we should have a panel on that or a section of the next panel on that because I think, Chairman, what we've done is create the framework for that discussion today. I don't want to take away from Professor's Lo's discussion on SEFs.

MR. MASSAD: That's fine.

MR. KLOET: But I actually think that's a really important question and would suggest that we spend a lot of time on it. And I think we're proving the value that getting this group together to have that discussion would provide. I'm happy to go to either one of you.

MR. GIANCARLO: Thank you and it's a question, not a suggestion for an hour-long discussion, so I'll make it quick. I found it very interesting Ms. McLaughlin's and Mr. Flood's concern about liquidity crunch as perhaps a trigger for widespread default, and Ms. Portney's concern about the human elements certainly to run any type of auction process. So my question to the CCPs is when you do your fire drills and your emergency risk scenarios, to what extent do you use scenarios that really stress the liquidity, market liquidity, scenario to come up with your fire drill analysis? How dire do you look at market liquidity issues when you do your fire drills?

MR. KLOET: If you could keep the responses -- sorry, I don't want to short circuit it -- but if you could keep the responses relatively short because I have one other important question to go through first that we have a brief presentation on.

MR. CUTINHO: As I spoke before, these drills are hypothetical situations. So we use information that exists to structure the environment that I spoke about. These are stressed environments and it's important for all participants to know that it is a stressed environment. I think Scott referred to something good, which is the stressed environment impacts markets that are outside of CCP's view. I think the important thing that the Default Management Committees or Active Default Management Committees do, this is the importance of why we draw from these resources is they give us a sense of what does environment really mean outside the CCP's view. So it gives us a sense of what is available.

The resource constraint that was raised is true, but it is the best of all the alternatives available and coordination between the CCPs is one way to resolve that. I'll also give you another circumstance. When we plan our drills, it's important to also pick in our case the election, Greek election, was a period of stress now. So conducting a drill at that time was very informative, so we knew who would participate and who couldn't and why some institutions could not participate. So it gives us under good circumstances a venue for conversation to find out what are the real stresses, especially when it comes to resources. So that is my short answer to your question.

MR. KLOET: So we have about 15 minutes left till our break -- oh, I'm sorry. Commissioner, you have one more question?

MR. WETJEN: Thank you, just real quickly. Emily, you mentioned a number of actions that the CCPs can take on the road to default, so before an actual default. You mentioned that maybe one of the CCPs represented could answer. It wasn't clear to me based on your comments, but one of the things you said is that what can happen is more frequent margin calls, and then you had a variety of suggestions about other things that CCPs might do that could be appropriate.

So my question is are those spelled out in the rulebooks? Does it get into detail about how frequent margin calls might be? It seems like that might be kind of hard to do, but it wasn't clear from your remarks, Emily, whether there's a lack of transparency around that as well. So this again would be actions taken by the clearinghouse before a default.

MR. CUTINHO: I think I'll answer it this way. It's important to make sure that CCPs have flexibility in terms of tools. At the same time, there is a lot of responsibility on CCPs, especially to make sure that from a systemic risk perspective, you don't make the matters worse. I know Dennis pointed out this issue, but at the end of the day what are the objectives of a CCP. Think about it. If a CCP were to do or act in a reckless manner in terms of frequent margin calls are imposing a liquidity strain, then it will only make matters worse for itself in terms of resolving the default as well as creating an unstable environment. To give you an historical experience, and this is one of the things that we should keep in mind, we have a regulatory organization as a part of CME, our SRO. So we interact on the event -- before we get to a default, we interact very, very closely with other organizations such as FINRA and the SEC as well as the CFTC. So there is a lot of coordination taking place at the onset.

There are new players such as FDIC and the Fed. It is important to get that transparency going ahead of time. Other CCPs who have the same clearing member join these coordinated calls. The objective of these calls is to make sure that we act in a very coordinated manner and we don't make the environment worse because sometimes default management is not a cookie cutter approach. You could get clients of a client book. You could protect the clients; get the client book of a clearing member in distress to a safe place well before the default of the firm. So that's something that has happened in our experience. We have engineered these things without an impact to the clients. And the clearing member in distress also appreciates that because in some sense they are selling some assets and getting the most value they can get for these assets. But if CCPs increase the distress or impact the market, they will get less value and make matters worse for themselves. So I think CCPs are cognizant of that. We have a rich experience doing this. So it's important to keep that into account.

Risk management cannot be restricted. So trading restrictions is not -- I wouldn't say it's trading restrictions. Risk management is a responsible action, but it's important to do it in a balanced manner. You want to make sure that an institution that is progressing in distress at the onset is not increasing its risks; it's reducing risk. It is a continuum and there are different stages of this continuum. So you want to get to a place where they're controlling their risk and overtime reducing the risk to a place where it is manageable. Doing that in an orderly manner is much better for the broader market. I don't believe in restricting a CCP's capability to do that, and these processes are not arbitrary. They're done in a very organized manner and tying a CCP's hands or asking for an enumeration of all these actions, I don't think is the right approach.

MR. WETJEN: I can agree to that. But maybe back to you, Emily, were you suggesting that there is a bit of lack of transparency around some of the tools that could be deployed before the default as well as is there not enough clarity in the rulebook?

MS. PORTNEY: Well, certainly, I think there could be more clarity and more transparency, but I was probably also more trying to emphasize the fact that a lot of the measures that a CCP would take on the way to default are procyclical -- so raising IM ultimately, increasing haircuts, increasing the frequency in the number of times that you're calling for margin. We should be thinking about now in what isn't a stressed environment whether, frankly, there are floors. For example, we're all talking about in separate markets like SEC lending, et cetera, whether there are minimum haircuts. There's other measures you can take now in a normal market that, again, might not be the most popular, but can at least ensure that it's not necessarily the actions that you take on the road to default are procyclical. But they'll be more conservative in peacetime.

MR. KLOET: Commissioner Giancarlo, did you have a follow-up question to your earlier question? Okay. Sunil, did you want to respond to that?

MR. CUTINHO: Yes, I want to quickly respond to a few things.

MR. KLOET: Okay, because I think Susan had --

MR. CUTINHO: I can't speak for every CCP, but CCPs should not change haircuts when there is -- haircuts are associated with collateral, liquidation of collateral, and they're not associated with a specific institution. They are broad based, so they don't end up changing just because one specific institution or two specific institutions have a problem. Let's take the other view, like if institutions are having a problem and the collateral that's being used and its prices are volatile. Two things to keep in mind are CCP's mark-to-market collateral on a daily basis. As far as haircuts are concerned, they are designed with stresses in mind, so you take a stressed situation for this collateral. Haircuts are designed to cover those stressed circumstances. In fact, they are far more dynamic than static haircuts that are set. So in our case -- I mean Emily is right, there is liquidity facility. When you work with banks on a liquidity facility, you get a view into haircuts as well. So if you use a liquidation agent in the market, you get market color, and that gives you another source of information to set your haircuts. So haircuts are not institution specific.

In terms of margins, I know there's a

lot of discussion about procyclicality of margins. The thing to keep in mind is -- and I have talked about this coordination -- the objective of a CCP when entering into is not to ratchet up the margins. That is counterproductive. Margins should be a function of the risk, not the credit profile of the institution. That's the role of margin. The margin should cover at the 99 percent level in the liquidation period for the risks that an institution has. If they change, they're a function of the market, again, not institution specific.

So the thing to remember about procyclicality, the red herring argument here, is margin versus -- actually I think it was pointed out -- mark-to-market. I can see it's a function of the moving market, so that can be procyclical, but that is the nature of the market. Prices are moving. There is volatility and as a result you have mark-to-market. This is why we've got to be very careful about this word "procyclical." There are things that are procyclical and things that are not.

MR. KLOET: Thank you. Susan, you've had your card up for quite some time and I'd like to let you ask your question or make your comment, and then I'm going to move on to the next subject.

MS. O'FLYNN: It's more a quick comment and it's just kind of I echo a lot of what Scott and Emily have said here in relation to kind of the dealer perspective, but I --

MR. KLOET: Susan, can you get the mic a little closer? I want to make sure that people who are listening elsewhere can hear.

MS. O'FLYNN: Better? Good. So I echo a lot of what Emily and Scott said in relation to earlier. I think it's the concept of identifying what's fundamentally important here. We want to reduce contagion, understand the interconnectivity, and then understand the CCP's response to that and how we create protections within the market.

It's also -- and one thing that I didn't think was identified -- is a lot of the large clearing members are other types of institutions than existed in 2007. They're better capitalized. They have more liquidity. So there has to be recognition of the fact that from a counterparty risk perspective, some of the large systemic institutions are in far better shape than they were in '07.

It then comes back to ultimately resources, and it's margin versus default fund versus assessments. What's available? It's back to Chris' point at the beginning, knowing the numbers. And to me it just comes back to one fundamental kind of theme that runs through all of this, and it's transparency and kind of comprehensive understanding around how each CCP actually works. I think the industry is seeing that there has been -- and what's happening that the FIA is doing this year is the CCP rulebook review. For me, being a user of that, it's been very interesting for me to understand. It comes back to -- on the path to default, what are the powers that each different CCP has and how proscriptive some of those are, or how implicit they potentially could be. So it comes back to kind of to me transparency, understanding kind of the stress testing that each different CCP uses, and potentially the role of this committee to be able to design those stress tests with clearing member input and regulatory input. So there is kind of real understanding that we have created a robust model.

And that's where I'm going to draw the line because, as you say, we could on for hours.

MR. KLOET: Thank you, Susan. I'd like to call on Mike Modlock from TriOptima because one of the comments earlier on was about what we can do -- what DCOs can do to either coordinate or standardize their practices in order to better address what would happen in a real-life default scenario. I think you had some thoughts on that and I'd like to ask you to share those.

MR. MODLOCK: Yes, good morning, and thank you to the Commission for the chance to serve on the committee. I've been asked to say a few words specifically on the concept of risk rebalancing for OTC derivatives between CCPs. And as we've heard today, there are more CCPs and multiple clearing venues.

The way that we see this is as an opportunity to reduce systemic risk through the rebalancing of counterparty risk exposures. So what does that mean? Well, if we look at the clearing venues today, given trade is often determined to clear other CCP by the client, potentially you could have a clearing member with a relatively market risk neutral portfolio, but it's spread across multiple CCPs so that's not necessarily risk neutral at a netting set level.

This leaves the clearing members with the task of managing that risk across multiple venues. Additionally to that, we could consider the fact that there are a number of products that are not clearable and all the bilateral netting sets that exist with nonclearing members, which are numerous again.

The ability for a clearing member to

manage that risk, they can't offset the risk from one CCP to another and there's no mechanism in place at present for the CCPs to be able to provide that to the members. So what we think is the opportunity -- and highly benefits the default management process specifically -- is we believe that there's an opportunity to proactively rebalance these exposures. In terms of how that would help the default management process, we think it could make it simpler, potentially make it shorter. It's complementary to clearing. And ultimately we believe that if you can help the clearing members to be stronger by rebalancing those risk exposures, then that leads to a stronger set of clearing members at each CCP -- whereas it's been pointed out are not members at all CCPs -- which, in turn, leads to a better default management process, reduced contagion risk, and improved financial stability.

MR. KLOET: Thank you. I know there are some name cards in the air, but, unfortunately, we are very close to out of time. So what I'm going to do is go back to the question I referenced before. In this case I also want to invite the outer circle members to participate as well. I may not be able to see all your cards, so you may have to like raise your hand or something. I don't think you have to stand up, but if you raise your hand or something, I'll probably see you.

But the question -- and the Chairman kind of teed this up in a sense as well. What I'm thinking about here is we're laying a foundation for future discussions, but what role, if any, do you think the Commission should play in addressing these issues? I think with this question what we're particularly aiming at is, you know, is there something that the Commission may be missing in what they're doing today around these subjects that they should be looking at? And I think this is a question we will come back to later on as well, but maybe it'd be good to take a little bit, a couple of minutes, here before we break to get people's views. I already see panelists going up. So, Cliff, why don't I go to you first?

MR. LEWIS: Thank you. This is specific to your query as to advice, maybe welcome or uncongenial advice, to you people with a very difficult job. I think, in fact, one of the things that is a real challenge is not only are we sort of fighting the last war, recognizing that market structure is going to be very different, not only are we setting up utterly unrealistic scenarios that essentially could be characterized as sort of canned goods and ammo kind of risk management techniques where essentially the whole system is collapsed -- and that's a scenario that really you can't plan for inherently; it's why we have a lender of last resort, in fact, in situations like that. But the bigger issue I think is the coordination and consistency of government policy on the overall utility of these markets, which the decision has been made to say are going to be more important, in particular the mandating of clearing. And I think there is a pretty fundamental inconsistency between many of the capital rules -- and the Chairman I think is doing standup work on this -- but can the system work with the regime that's being proposed in terms of leverage ratios SIFI premiums?

And I think an honest answer would be no, but at least that's a question that has to be openly addressed by this committee, by others. And if the answer is no, then I think the Commission's responsibility is to help the industry figure out what an alternative clearing structure would look like. And to that extent all of the comments that the clearing firms are making are quite reasonable. You're saying hey, we bear the cost, we bear the risk, we get a small fraction of the upside for this. That will be reflected in their willingness, as they said, to accept portability. I mean is it feasible with the liquidity rule to really expect a major institutional user like BlackRock if JP Morgan goes under, the answer is no. That won't be able to happen. There's nothing that clearinghouses can do to fix that problem.

So the question really is if you can't

get relief on some of these capital rules -- which in my view would not sustain, could not sustain, careful analysis as to their net consequences -- but if you can't change them, then I think we need to have a long look at other regulatory changes because essentially that will mean that market participants will increasingly have to clear their own business, which is not unprecedented in the history of the markets. It's just not what's been going on really since the crisis, really since financial futures came in honestly is where the distinction was.

So, again, a lot of things that the Commission could do, if only to hedge -- pardon me for invoking an industry term -- against alternate futures. One of the things I would really encourage -- and it's great to have Kristen and others from the owner asset management community here -- is to sort of query hey, what would make you more able to use these instruments as you do today, but with a model that would reduce the dependency on bank intermediaries, particularly given that systemically important bank intermediaries may not be able to do this at an economic price.

MR. KLOET: Thank you. Ed, I think you had your card up. Does it relate to this question?

MR. PLA: Yes.

MR. KLOET: Okay, please.

MR. PLA: Thank you. I think maybe in response -- maybe the pithy answer to the Chairman's question about what could the objective be, I think maybe there are three principles that we should consider in terms of greater international coordination and fire drill management: Standardization, I think this has been raised multiple times; simplicity, I think any of us who are in the industry as practitioners who would reflect back on the last 6 to 8 years of developments would probably agree that we're living through a bull marketing complexity. And complexity to me engenders fragility and fragility is sort of the enemy of systemic stability by definition. So I think anything we can do to increase simplicity and predictability of what we're doing internationally would be tremendously beneficial.

So some examples might include things like standardizing certain elements of CCP rulebooks. We shouldn't be flipping through these things in a crisis to remind ourselves what they say. There should be a degree of consistency around auction management, whether that's communication or bid submission. The CME online tool for doing this could be a template and there could be others like that. So we should use existing tools and see if we can build on those.

Standardization of elements of risk management: So to the degree that defining risk management principles is ultimately what protects the system, some consistency around transparency and the content of risk management principles I think is beneficial.

And I think I'll probably leave it at that -- maybe Treasury management practices at

CCPs, but I think, again, stability, predictability, simplicity, I think all these things would be great.

The second thing I'd say is that this notion of dress rehearsals is absolutely imperative and it's great that CCPs do them. But what's changed also since 2008 is the fact that CCPs are now tending to clear like products. Previously you had systems of vertical integration where you had certain contracts that were copyrighted and executed and cleared in exchanges. Now we have things like dollar interest rate swaps that can be cleared in multiple jurisdictions and multiple CCPs. That virtually guarantees contagion given the small number of clearing members.

So I think, again, we need to -- I know it's a challenge because we have international regulators and many different stakeholders -- but I think we have to recognize that thankfully, these things happen very infrequently. Crisis management understanding and knowledge has a halflife. It decays. Many of the people who lived through Lehman or MF Global or Revco have moved on in their positions or are not in the industry anymore. So dress rehearsals in this kind of international coordination provides a very countercyclical booster shot of understanding and predictability. So I think to Emily's point when we talked about procyclical things, these sorts of things or the principle might be, what are the things we can do that are countercyclical that protect us in advance?

And then the third I would say is minimum thresholds for skin in the game not just relating to CCPs, but it strikes me that given the amount of conversation we're having about default management and so forth, maybe there needs to be a refreshed conversation about the adequacy of initial margin. The beneficial owners who are putting risk into the system incrementally ultimately should be putting sufficient capital behind that initiation of risk so that, hopefully, we never get to the point where we're implementing assessment rights and haircutting variation margins and so forth. So, again, sufficient skin in the game not just for CCPs, but beneficial owners of the risk through a reexamination of initial margin principles.

MR. KLOET: Thank you. Marcus Stanley, I think you had your panel up.

MR. STANLEY: Thank you. This actually relates to a lot of things Edward was saying, so maybe it's a good point. I think that when we think about this from the public interest perspective, we have two real kinds of priorities. One is that the price of derivatives in normal times really reflects some of these tail risks that can materialize. And the CFTC has only limited control over that because some of the margin and capital rules are also dependent on other regulators. But the dependence on internal models at CCPs I think can create a situation or nonstandardized internal models can create a situation where those tail risks are not genuinely priced in. I was looking at an IMF simulation that claimed to find that just changing the portfolio netting assumptions from extremely high portfolio netting just down to moderate portfolio netting increased default potential, default fund contributions, by tens to hundreds of billions in a stressed market scenario. So these are things in terms of detailed oversight of those internal models that the CFTC can do.

And I think the second thing, which follows on what Edward was saying, is that we obviously can't price the entire tail in because there are potentially unlimited liabilities here practically. And we really have to standardize the process of default. And I think clearinghouse wind down in a way that is ex-ante very, very clear to people, whether it's by trying to standardize this process of default management across clearinghouses, but also introducing some kind of wind down and tear up process if an auction has failed. If the portfolio cannot be rebalanced, introducing that process in a clear, quick, swift manner so people reach a point of clarity, of what their actual situation is instead of keeping these potentially unlimited liabilities out there changing day to day. That certainty could really be beneficial. Even if it means that there are losses taken by market participants, at least they know what those losses are. And I think there's a real role for regulators in that clearinghouse wind down, and I think that's much preferable to a public backstop for clearinghouses.

MR. KLOET: Thank you. Anat Admati.

MS. ADMATI: I want to echo some of the comments about sort of reducing the procyclicality by being better prepared. One thought, something that didn't come up, but I urge the Commission to look at, is the margin rules with respect to are they uniform for participants because it seems important that there are no presumptions made for any participant, including the CCP and the others, of bailouts. So to the extent that an end user has a margin requirement, a systemic participant should have the same margin. In the hypothetical

-- in service, a conceptualization of it, they are not too big to fail in which case they would be needing to really be in that game.

MR. KLOET: Bob, do you have a comment on that particular point?

MR. WASSERMAN: Yes, just very quickly. I should note there's concern about bailouts and the like. Under our rules, under the PFMIs, all credit exposures must be fully addressed within the rules of the CCP. And so at the end of the day the last stage is going to be something along the lines of complete tear up and gains haircutting to meet the resources.

MS. ADMATI: The problem of bailout is only about the bailout alternatives. That's what we're talking about. We have lenders who have left because the alternative is worse and so that's what I'm concerned with. It's not that we have a rule that says no bailout, but that we might not want to follow that kind of rule.

MR. KLOET: Okay. Sunil --

MR. MASSAD: Actually, can I just follow

up, though Bob, because I thought Anat's question was going to the collection of margin from participants and I don't think -- I mean our rules require that a clearing member collect 100 percent of the margin from participants, but I don't believe the PFMIs say that, do they? And I don't believe other jurisdictions' rules necessarily say that.

MR. WASSERMAN: That's a fair point. Essentially --

MS. ADMATI: These are mutualization of losses? How is this conceived?

MR. WASSERMAN: So from a margin perspective and was quite rightly pointed out, the clearinghouse sets the margin requirements for the members. Our rules require that more than 100 percent of that amount be collected from each customer. Every customer, no matter how creditworthy that customer may be, the member must collect from that customer at least that amount and in some cases it will be more. And likewise the clearinghouse will be collecting from all of their members, again, the same required amount.

Mutualization only comes after you run through that margin of the particular participant. And, indeed, certainly in the U.S. then as well the skin of the game of the clearinghouse and as well the default contribution of the defaulting member such that at least in the U.S. -- and folks have pointed out well, look, things have gotten a bit more complicated since Lehman and that's quite right. That said, historically the question has not been gosh, how much of those mutualized resources have we eaten into. Indeed, in the U.S. historically we've never even gotten there. In the Valukas Report on Lehman the question was well, gosh, why haven't you given us more back?

So I think there's certainly room for coordination around that, but I think so far things have proven reasonably resilient. There is certainly room as well to consider and continuously improve this. I should note at an international level there is going to be in the coming months consideration about issues with respect to margin and margin models, issues with respect to stress testing. So there is going to be a lot of work on there at an international level by CPMI and IOSCO in the coming months.

MR. KLOET: Okay, well, unfortunately, I know there's some more panels in the air. Unfortunately, I have to cut off the discussion at some point. We're well past time and, in fact, we're encroaching into Andrew's time on SEFs. So with that, let me thank everybody for a great panel. I think, Commissioner, what we've tried to do here today is really lay a foundation for further discussions. I think we all knew we wouldn't resolve all the possible default issues, but I think what you've heard from the industry is concerns, comments, and really a willingness to help work with the Commission on how we can set a framework to protect market integrity in a really important way. I think the MRAC has continued work to do as we work through this.

MS. BOWEN: We do.

MR. KLOET: I'll work with Petal on

thinking about some further discussions as we go through this. Thank you for this afternoon.

MS. BOWEN: Thank you, Tom. You did a great job moderating and the robust discussion, that's the whole point of these advisory committees. So thank you for speaking up.

MR. KLOET: I have a couple of just logistical things. First, we're going to take a 5 minute break, so let's all be timely. Now, I will say while everybody's rushing to the bathroom that your nameplates, will be moved. So when you come in don't be surprised if you're sitting somewhere else because I will assure you, everybody, including myself, is going to move. So we'll all move and you might want to make sure you kind of have your stuff gathered so you can grab it quick because we are -- a lot of us have flights to catch, but we want to get to the next panel as soon as we can. So thank you everybody, 5 minutes, be back in the room and ready to participate in the next panel.

(Recess)

MR. LO: Let's get started. So I want to begin by thanking Commissioner Bowen for sponsoring the Market Risk Advisory Committee and inviting me to be a member of this distinguished group. I also want to thank Chairman Massad and Commissioners Wetjen and Giancarlo for their leadership in dealing with some of the most complex issues facing financial regulation today.

This is going to be a shorter session. I realize that we're standing in the way of lunch, so we're going to keep our comments relatively brief and to the point. We're very fortunate to have three experts on SEFs to get the discussion going: Michael O'Brien from Eaton Vance, Rana Chammaa from UBS, and Darcy Bradbury from D.E. Shaw. I'm going to ask each of the speakers to start off by giving us a short 3-to-5 minute overview of their perspective on how the swaps landscape has changed in light of SEFs and then we'll open it up to a broader discussion with the rest of the group.

Just as a matter of housekeeping, please press your button to activate your microphone when you speak. This roundtable is being Webcast and Audiocast and we can't hear you unless you speak into the microphone. And then also when you're done, please turn it off. And afterwards when we open it up for general Q&A, please turn your tent cards to the side if you would like to be called on. With that let me start with Michael O'Brien.

MR. O'BRIEN: Thank you, and thank you to the Commission for inviting me to participate in this event today.

The question that I really wanted to address was whether market structure has changed from a trading perspective with SEFs. My response to that question would be from my seat on a trading desk on the buy side, nothing has really changed. The way we execute trades and the market structure and how we interact with the market has not changed except it's become more expensive. Both the explicit and implicit costs of trading have certainly increased since SEFs were brought into existence.

And the reason I say that is prior to, or if I look back to September of 2013 before SEFs formally came into existence, most of the trading we were doing in the products that now have a MAT designation was electronic. It was electronic on a handful of platforms and the liquidity providers were the banks. We would do it using an RFQ; it would be RFQ to 2 or 3. We would execute the trade and it would remain bilateral or clear, but that's the way we were interacting with the market.

If I fast forward to today, the primary way that we interact with the market is the same thing. It's for the most part the same platforms. It's the same liquidity providers. And it's the same trading mechanism, which is RFQ. So from that standpoint, I would say nothing that we're doing has really changed that much.

We still remain very optimistic that some of what we viewed as the goals that SEFs were intended to achieve, including additional transparency, alternative trading mechanisms such as order books or other things that may come up. We certainly believe that the potential is still there for those to happen in the right environment and with some patience. It is true that the buy side doesn't adopt anything new very quickly for a variety of reasons. It's a very diverse group with diverse investment and trading strategies, so nothing comes quickly. But I certainly believe that there are things that can be done to encourage the buy side to adopt or to move in a direction of what we hope SEFs will be able to achieve. Some of those things we'll discuss today. But to end just to come back to answering the question, I don't believe that anything has really changed with market structure with regard to trade execution.

MR. LO: Thank you. Rana?

MS. CHAMMAA: I also would like to thank the Commission and you, Professor Lo, and Petal Walker for the opportunity to speak today. I just want to make sure you can hear me correctly? Okay, perfect.

Certainly I think we can completely understand the position from the trading side. I think it's important to note, however, that there have been a number of positive impacts that have resulted from the implementation of the CFTC's SEF rules.

MR. LO: Rana -- sorry -- can you bring the microphone a little bit closer to you?

MS. CHAMMAA: Yes, absolutely. Is that better? Okay, thank you.

So as I was saying, there are a number of positive impacts I think we should note that have arisen from the implementation of the CFTC's SEF rules. For one, the rules have created a cleaner and more robust execution workflow. So we now certainly have pre-trade credit checks and straight-through processing, both of which are critical in ensuring trades executed on SEF are done so quickly and successfully and cleared successfully.

The CFTC created a mandate for impartial access on SEFs where all market participants should be able to access every SEF and in constructs. This mandate has allowed clients to access markets that were previously only available to the dealer community. Additionally, the SEF rules provided clients with a variety of alternatives on how they can access these new liquidity pools, be it through direct participation or through an intermediary agency execution offering like the one we provided UBS, UBS Neo, or even just looking at other asset classes like futures in alternative ways and connecting.

However, to echo what Mike O'Brien was saying, more needs to be done to further solidify the full implementation of the SEF rules. Our clients find two particular items most critical, post-trade name give-up and impartial access. I can go on about those, but maybe I'll give Darcy a chance.

MR. LO: Darcy?

MS. BRADBURY: Thanks. So trying not to repeat what my colleagues have already said here on the panel, I want to start by kind of going back to first principles. We were very supportive of the swaps reforms, in particular the focus on central clearing. That was very important to my firm and I think to most firms in reducing central credit risk that we had from counterparties. We're also pretty optimistic about the better availability of data, some of which is going directly to the regulators. And I realize there are a lot of issues around the swap data repositories, but nonetheless, I think as a work in progress that's an important goal.

I think getting better information for us to trade with is very important and that is something that we see improving because of the SEFs. You have the price screens. You can see data now, which you didn't used to be able to see, but I think the trading is probably the most disappointing part of the reforms. I think that the goal as envisioned by the Commission several years ago when they embarked on this was a little more revolutionary. And I think as Mike has pointed out, we haven't really changed very much. And in particular, we've ended with a bifurcated market where you have a couple of customer-to-dealer SEFs where basically that's the only place the customers can trade. And then you have the deeper pools of liquidity, the central limit order books, at the interdealer broker SEF platforms. And so we think overtime we would like to have access to those interdealer SEFs. We'd like to actually not have them be just dealer-to-dealer, but in fact, have them all be open to any customers and dealers. By doing so we'll both get better information about what pricing is, and we'll also get more competition and be able to access deeper pools of liquidity. And, hopefully, at times even be able to use central limit order books instead of just the RFQ process that's available on the customer-to-dealer SEFs.

MR. LO: Great, thank you. So given that you raised the issue of this two-tiered system and the issues about liquidity, are there any particular factors affecting liquidity that you think can be changed in order to enhance liquidity? Michael, you want to start with that?

MR. O'BRIEN: Well, for me the most important thing is the development of order books. Order books provide -- if it's an order book that everyone has access to, so it's an all-to-all and we move away from the dual structure model where we have a dealer-to-dealer and a dealer-to-client market where everyone can see the same information similar to the way it works in the futures market. That transparency could certainly help alleviate some of these issues. Right now as I mentioned, we're still in an RFQ world, which is the way it's been for a long time.

The most important thing for us, though, is we have executed trades in an order book, but there's not sufficient liquidity for all of our trades in the order book. We need more buy-side participants in the order book. We need new providers to alternative liquidity providers besides the banks in the order book. And we need more participation from the banks in the order book to increase the liquidity there.

The biggest issue when I talk to my colleagues on the buy-side is the issue of name give-up. As an execution desk on the buy-side, if we want to interact anonymously in the market, which is one of the great benefits of an order book, that's the way we want to interact. If we wanted name give-up and we believe we'd get better execution that way, we'd use the RFQ model, which is something that is well established even in SEFs at this point.

The challenge with name give-up for us is in today's market you can execute a large trade in swaps or CDX. I anticipate that as order books become more liquid, you'll see a similar size be able to be executed, but it will be in smaller ticket sizes and more numbers of trades as we've seen in other markets as it becomes more transparent. That's the type of environment where name give-up becomes a very significant issue to me because as soon as I do my first small trade, now I have information leakage into the market about potentially what my intentions are. I can speak for myself, but I suspect many other buy-side firms feel this way, that's really a deal breaker for executing on order books. And speaking to other colleagues at other firms, I think is a big reason why they're not interacting with order books today.

MR. LO: So let's turn directly to the name give- up issue then since that seems to be at the heart of some of these concerns. Rana, you have some thoughts on that?

MS. CHAMMAA: Yes, I would absolutely agree with that. Post-trade name give-up is often the number one hindrance to order book trading amongst our clients. We certainly think that it's an archaic and unnecessary practice. And with regard to Mike saying how to attract a greater number of market participants, that would probably be the biggest proponent to that.

So I would also say there remains a trading mechanism that is the traditional way to trade in the swaps market, which is RFQ, whether it's name disclosure. So in terms of thinking about impartial access, attracting more participants to SEFs, they should have a choice on whether or not they want to remain anonymous and in some cases potentially prevent information leakage. So I would absolutely agree. That's the number one cited reason for no greater adoption to SEF order book trading.

MR. LO: Darcy -- Commissioner Wetjen?

MR. WETJEN: I didn't mean to interrupt the flow there, my apologies. The panelists, all of you, are suggesting that -- well, you're suggesting one impact from eliminating this name give-up practice is that you'd presumably get more buy-side participation, but what would happen if the Commission were to clarify that name give-up were not permitted? What would happen with respect liquidity forming in a CLOB or forming perhaps even more in an RFQ? And maybe -- I guess a follow-up question on that would be would that be a temporary phenomenon or would you expect that if temporary would reverse or would it be permanent? In other words, people might want to take their liquidity elsewhere, depending on the immediate impacts of doing away with name give-up. Help us understand those effects a little bit better.

MS. BRADBURY: Well, I guess I would make one comment about that in addition to the effects you've described. There's a reason that the Commission has to act here because this is a very -- the interdealer broker market, it's very competitive. There are four or five firms and it's in some kind of death duel I think. I mean it's obviously a very competitive industry. And I think that it's very difficult for any one platform to step up and say gee, if I got rid of this rule, I'd get the buy-side on my platform. That would create more liquidity. That would be great because if some of their current clients don't like it, then they'll all pretty easily -- they'll have the buttons on their desks. They'll just pretty easily move their -- so it's a classic thing. The first mover really can't act, and so it's a case where the government, the regulator, really needs to step in and say to all of them look, you don't need to do this practice. It's a legacy of when these markets were uncleared, when you needed to know who your counterparty was. That's not true anymore. So for the cleared swaps, it's just not necessary. Let's get rid of it and then see what competition does.

MS. CHAMMAA: I'd also actually address that question specifically on kind of liquidity and what may or may not happen. I think that often there's a potential concern on whether the traditional liquidity providers in this space would pull back or whatnot. But I think that what we need to note is that regardless, if nothing was to take place and no changes were to be made, the expectation is that liquidity would dry up anyway considering the regulatory capital constraints that will be impacting, and continue today impacting, the liquidity provision amongst the traditional dealer community. So it just reinforces why, to Mike's point earlier, we need alternative market participants who will also be providing liquidity as and when that happens.

MR. LO: Rana Yared and then Marcus Stanley.

MS. YEARED: Thank you, Professor. I just want to comment on the concept of order books and name give-up. So I'll start by saying that for as long as I can remember, since maybe 2009, Goldman has been an adamant supporter of order books, what we call benchmark interest rate swaps, to 5, 10, and in the cases of the U.S., 7, as well. We've been agnostic as to whether or not that developed in what I'll call a traditional OTC form or whether indeed a future-like form, be it deliverable or nondeliverable, came to pass. So I start with this by saying that like the firm is, in fact, very supportive of order book trading around those points because we think it will have the same positive effect that has been created in the FY and TY on the future side.

That said, we have significant concerns

about the removal of name give-up. And the reason for our concern is that we feel that the U.S. market still continues to trade in a spreadover manner and that there's substantial risk on those package trades if we don't know with whom to execute the Treasury like. So far the mitigants for that risk that have been presented to us have not been any less scary, so one of them is asking the interdealer brokers to use their own broker dealers to intermediate that risk to FICC, the subsidiary of the DTCC. Another version of that has been to simply hope that what we call the FICC prime broker of nondirect members has done an appropriate credit check in the same way that their swaps clearing member has. There are not equivalent standards on the FICC side for that and so we're kind of living on hope in both cases.

So as long as we're in that world, particularly for package trades, we get very nervous about name give-up. It might be a bit of a nuance in the market, which is there might be market participants that are very supportive of name give-up as a concept, but that the mechanics of the market have not yet evolved to that. And I would just note, I remember in February 2013, ICAP Tradition and Dealerweb all turned on their order books and like nothing was there. A year later, there was quite a lot there and today on Infomat there's even more there. And so I would hope that we don't lose sight of the fact that the market is learning how to deal with some of these challenges and order book trading is growing as we hope that it will.

MR. LO: Marcus Stanley.

MR. STANLEY: Thank you. I guess I'd be -- it would feel like letting the tail wag the dog to let the package trade issue drive the overall name give-up issue. I mean we've had these technical issues around package trades just with making them available to trade. The truth is that the swap itself is cleared. I don't understand any reason why you're not directly exposed to the credit of your counterparty on a cleared swap. I would say we are somewhat mystified as to why the

Commission has not yet acted on this name give-up issue.

As some of you know, we felt that the Commission's original rules should have advantaged order books more compared to what are almost bilateral RFQs that don't really change the state of play or the business as usual from before Dodd-Frank that much. And to permit name give-up, which frankly we see as something that would enable discrimination by dealers against buy-side participants who do use the order book, is really problematic given the very clear mandate in Dodd-Frank for impartial access.

Just to close on a general statement about Dodd- Frank, I mean we have all this verbiage in Title VII because the Commission is mandated to change the market structure in what were formerly bilateral over-the-counter swaps. That's the whole reason that we have this mandate to create SEFs in the first place. So let's make sure that the rules there really do enable that kind of liquidity and the kind of impartial participation by both buy-side and sell-side and the future-like exchanges that were envisioned in Dodd- Frank.

MR. LO: Jerry Jeske.

MR. JESKE: I'm Jerry Jeske on behalf of the Commodity Markets Council, a group of end users from an energy and agricultural standpoint. Just to follow up on what Marcus was saying, I really don't believe rules can dictate how liquidity works. So rule implementation has to be done in a way that makes sense to the markets. We're going down a bit of a rabbit hole in connection with one asset class so far today -- interest rates -- that's it.

The rule set is applicable across the commodity sector. So I think several commenters have said one size doesn't fit all. I think Rana pointed out the mechanics associated with the marketplace are very critical, and I would echo that. The mechanics associated with oil swaps versus grain swaps versus natural gas swaps or electricity swaps and interest rate swaps are not the same thing. So when we look at how does a SEF interact in this place, it's not an easy concept to get across. Central order book isn't appropriate across the board. If you don't have liquidity that already exists in a certain locale, voice brokers don't just flip a switch overnight and become electric marketplaces. That's the difference I think between the various types of markets that have to be appreciated. So certainly some thought is appropriate from the Commission as to how does this apply across the gamut of the commodity sector?

MR. LO: Nathan Jenner and then Steve Berger.

MR. JENNER: Hi, can you hear me? I'd just like to respond to a couple of points. I think Jerry raised a good point in terms of some of the asset classes do have different characteristics that require different consideration. So at Bloomberg for our SEF, our order book is fully anonymous pre- and post-trade. We don't use middleware in our order book for the explicit reason to preserve post-trade anonymity. That is how our order book works, and it was a pretty simple decision for us because that is what nearly all of our buy-side expressed as a desire.

But having said that, it's just been an interesting observation to note that while activity has grown dramatically, nearly all of the activity has been concentrated in the index CDS portion. Of course, our order book exists across asset classes and it has the same characteristics, but nearly all of the flow that we see -- and we are predominantly sort of buy-side flow -- nearly all of the activity is concentrated in the index credit market.

MR. LO: Stephen?

MR. BERGER: From our perspective we believe that the net impact on pricing and liquidity from eliminating post-trade name give-up would be overwhelmingly positive. By contrast I agree with some of the points made, that the consequence of inaction will be progressive liquidity impairment in the marketplace. I think it's well documented that there are constraints on traditional liquidity providers in the market and they're only going to grow sharper going forward. And so the solution to that to us seems to be to open up the modes of interaction that can occur in the marketplace.

I think there's always going to be names disclosed RFQ, but that can exist alongside truly anonymous central limit order books. I think the structure we have today confines any buy-side market participant to a permanent price taker role. And I think the overall liquidity profile of the swaps market will be enhanced if any participant can make as well as take a price. That's a structure that's worked well in a number of other -- it's how the equities markets work, it's how the futures markets work. And so when you have anybody being able to make as well as take a price, you increase the diversity of liquidity provision in the marketplace and we think that will overall have a positive impact on the breadth and depth of liquidity that's available. That's going to be the solution to a challenge that we're otherwise fearful of, which is a constraint among the appetite of the traditional liquidity providers to continue to service the market.

I think it's true. It's not one size fits all. I mean I think a lot of this discussion is focused on the MAT product set within the interest rate swap and credit default swap space right now. I think there are certain challenges with respect to package transactions, certainly package transactions that are all cleared swaps, so outrights as well as curves and butterflies. I don't think there's any particular challenge to eliminating post-trade name give-up. I think there are solutions that are being developed, which could solve the anonymity problem for spreadovers. Two of them were alluded to. I don't think they're fundamentally flawed, so you can have the broker-dealer affiliate of a SEF intermediate the Treasury leg and preserve anonymity for that trade flow. You can also have clearing relationships just as you do for swaps to access FICC.

So those are both solutions that can work. I'm not saying they'll work tomorrow, but there's no long-term barrier to those being solutions for the spreadover market. And I think if you solve spreadover Treasuries as well as curves and butterflies, you've solved most of the package transaction issues or at least the biggest chunk of that volume.

And then finally, just to Commissioner Wetjen's point, I guess I'm not fearful that people will just pick up and take their liquidity elsewhere because I don't think the interdealer market will suddenly go to RFQ and start RFQing each other. So I think interdealer liquidity would stay on the order books and it would just be enhanced by additional participation.

MR. LO: Luke Zubrod?

MR. ZUBROD: So Chatham Financial is an adviser to end users. We work with both financial and nonfinancial end users. Of course, the nonfinancial end users are not presently using SEFs. With respect to our financial end user clients, they range in size from those who use smaller volumes to those who use larger volumes. And certainly amongst all of them, they're using derivatives to hedge idiosyncratic risks. And so our use of SEFs has focused on interest rates.

What we've found because we've evaluated all of the interest rate SEFs and are working with a couple of them. We're primarily executing swaps on a single one of them. And because we're intermediating swaps on behalf of end user clients, what the dealer counterparties that we show our trades to through the RFQ platform see is our name, Chatham Financial. They don't see the name of the client on whose behalf we're trading. And so in effect they're sort of transacting on an anonymous basis. The only piece of information that dealers have to make their decisions about how to price our trades is based on our name, not based on our client's name.

And what we've found is that that's been a very positive thing for particularly our smaller volume users because dealers have to price those trades just the same as they would for larger clients on whose behalf we trade. And so I think you can kind of line up the analysis based on is it a smaller volume or a larger volume hedger. I think because it's a hedger, RFQ is kind of the natural platform to transact those kinds of trades. And I don't think even if the order books became very liquid that those would be a natural venue for managing the risks of hedgers.

But then I think for the larger volume clients, we haven't seen any negative impact on their pricing as a result of SEFs. If anything, it's been positive. It's been more efficient. For smaller volume hedgers, it's been oftentimes much more efficient in particular because dealers don't have the ability to differentiate their pricing based on their size.

MR. LO: John Nixon, Rana, and then Sebastiaan.

MR. NIXON: As an operator of one of the

SEFs, I actually find some of the comments quite interesting. Rana did say and I agree that the evolution of the central limit order book and the interest rate swap market has taken a period of time, but it is definitely growing and going in the right way. On any given day at least 20 percent and sometimes 30 or 40 percent of our trades are being done on the central limit order book. Clearly, we do feel and have seen in our Treasury platforms or our FX platforms the more entities that you get onto a platform trading electronically, the more liquidity that you build and I think the better execution people will get.

I'm encouraged to hear that there are a lot of buy-side who feel that coming onto the central limit order book and trading in interest rate swap markets is what they believe is the right direction for them to go. I would say that to this day that has not necessarily been the case in practice. There has not been as much demand I would say from the buy-side for them to come onto our platforms. Michael, as you said, the buy-side often moves relatively slowly in making its changes. If its time has come, if the time is now, it will be interesting. I think that if you need the CFTC to opine on the anonymity and make that decision and that's going to help grow our markets from a participant perspective, I think that that's probably the right direction for us to go. But I will say that so far, we have not necessarily seen as much of a push as we would have thought we would have had two years ago from the buy- side to participate in our platforms.

MR. LO: Rana?

MS. CHAMMAA: I'd actually like to say a few words with regards to the last two comments. So I think that we're in a fairly unique vantage position considering that we offer intermediary agency execution services to our clients to the SEFs. And I would comment and say that potentially the demand that you have seen as of late or historically hasn't been as large as we'd all want because of this post-trade name give-up impediment. So really we know from several of our clients are currently sitting on the sidelines wanting to execute on SEF central limit order books, but are holding off because there's not pre- and post-trade anonymity.

And further on, just with regards to the actual size of the clients and how much they're hedging or whatnot, I would suggest that that is all the more reason to actually allow even smaller buy-side participants to participate on central limit order books because of the fact that they may not be getting better pricing by RFQ and certainly in the future wouldn't be because of their size.

MR. LO: Sebastiaan Koeling and then Marcus Stanley.

MR. KOELING: Thank you. So I'm representing the Proprietary Traders Group here and that's a group of 20 or so market makers in the futures and equity spaces. And we are a group that is actually part of this buy-side interest to join this. Back in 2013 when this swap execution facilities model came out, we were very enthusiastic about it because we believe strongly in transparent markets, possibilities to compete with traditional players in these markets, and we would think that that would lead to better pricing for end users. Unfortunately, there were a couple of things that made it harder for us to participate in these markets. First of all, we had some larger problems with having to register as a swap dealer and those things led to relatively large capital inefficiencies.

And then I'd like to echo some of the statements that were made with regards to the central limit order book possibilities for market makers like us. Unfortunately, this bifurcated market that still seems to exist does not help for us to actually participate in these markets because we'll also end up more on the dealer-to-customer side where the only possibility for us is to be a price taker rather than a price maker, what would be our traditional role if we were to do what we normally do.

So with regard to that, we are still

hopeful that it would move towards a central limit order book. And I would like to make the statement that there are definitely more market makers out there that are interested to provide liquidity, especially as that was also pointed out as a problem potentially with the new capital rules that are coming out that banks might actually drop out as being liquidity providers. So we think that the need for us to come onboard would be there as well, both for competitional pricing as well as the general need for liquidity in the SEFs.

MR. LO: And can I ask what your sense of name give-up would be in terms of enhancing liquidity?

MR. KOELING: Sure. I think name give-up is also one of the things that I think is a problem, but I wanted to mention a couple of the other ones as well because I think a large part of the things that name give-up have been mentioned actually.

One thing I'll add is with regards to a

lot of strategies that trading firms use as regards to market making. People have their own specific way of how they want to trade and post-trade name give-up obviously gives away some of the strategies used to price your products and to actually -- it also gives away some of the positions that you may hold in regards to the swaps that you've traded, which does not help you. It actually came up in the previous discussion as well with regards to the auctions of specific positions. If other parties know what your position is, there is a risk there. I think that also exists in post-trade name give-up, which doesn't seem to be necessary because the trade is always done with the central counterparty in terms of cleared swaps.

MR. LO: Marcus and then Jerry.

MR. STANLEY: Well, I've said our piece on name give-up and we favor the Commission banning it, but I wanted to just add a few more things. First of all, we're concerned that the Commission's cross-border position has permitted the routing of significant business by U.S. Entities to Europe where there does not exist an exchange trading requirement as yet. The exchange trading requirement has not been implemented and will not be implemented until 2017. We don't believe that compliance should permit basically the substitution of a nonregime for a regime. It's intended to permit comparable regimes to be substituted for each other. We believe that if the Commission took a stronger position on some of these cross- border issues, then it would channel more liquidity into U.S. exchanges when traded by entities that are affiliated with U.S. banks or have a U.S. nexus.

And just second of all, I think this is probably known to you guys, but just to remind people. We really feel there are very substantial systemic risk externalities to encouraging clear, transparent exchange trading where there's significant liquidity and where a wide variety of participants can act as both price takers and makers. We heard one from Sunil Cutinho in the previous panel where he said that when you have deep exchange traded instruments, these are much, much easier to manage those risks in the event of a clearinghouse failure. So you would be taking OTC derivatives and making them easier to manage in a systemic risk event. And you're also increasing the possibility of potential counterparties in the event of a major dealer failure, which was one of the problems that we saw during the financial crisis. So I kind of feel like exchange trading has become a bit of the orphan of Dodd- Frank, but it's actually a very, very important piece of the puzzle for wider systemic risk reasons as well.

MR. LO: So we're running out of time, so Jerry and Mike will be next. But in getting ready to wrap up, let me ask the panelists to consider one final point, which is what the role of the CFTC is in mandating some of the issues that we've been discussing. Clearly, if the CFTC were to ask all of the trading to occur on one exchange, we would obviously have lots of liquidity or more liquidity, but that would create huge problems in terms of the bespoke nature of this market. In Commissioner Giancarlo's White Paper, he pointed out a number of important features about swaps markets that make them heterogeneous and difficult to fit into one particular format and I've heard that from a number of you.

So if you can comment a bit on what you think the SEC should be doing in terms of dealing with these markets, that would be helpful. Already some of you have, but for those of you who haven't. Jerry?

MR. JESKE: Andrew, I'll try to address my comments to that point. I think you meant the CFTC.

MR. LO: Sorry.

MR. JESKE: But in terms of what can be done, I was going to pick up on Sebastiaan's comment. Some of the collateral damage that has already been done by some of the rulemakings is something that the Commission can consider, such as how or what incentives does one have to become a market maker, to create liquidity on a SEF? Are there incentives or are there disincentives such as rule 1.35, such as the prospect of becoming a swap dealer. These cost lots and lots and lots of money. So if I'm a market maker, do I really want to have all these high entry costs to become a participant in a SEF marketplace?

Another thing that's out there still and to my knowledge hasn't been settled is the rule sets for the SEFs. As a legal compliance person reviewing voluminous documents from various SEFs knowing that those documents are going to change as far as the rule sets for the SEFs based on what the Commission opines upon one way or another, that is time consuming and is something that should probably be considered as well in terms of the horizon of time and when implementation should or shouldn't occur across asset classes.

MR. LO: Michael?

MR. O'BRIEN: I just wanted to spend a moment commenting on the idea of the buy-side demand for central limit order books. I believe that the buy-side does have interests in central limit order books even if they're not calling SEFs and they may not be talking to their dealers. As an asset manager, the primary business is managing money. So you look towards how can I execute this in the most efficient way currently available? Well, yes, that today is an RFQ because there are many constraints on the order book that are just not acceptable for a buy-side trader looking to execute a trade.

And so I'm happy for there to be a market-led decision on whether the buy-side's going to continue with RFQs or order books if the order books are free of constraints and are competing without an arm tied behind their back. If the buy-side still doesn't come, then okay, the market has spoken. But right now the competition isn't fair. The RFQs are well established. The order books don't function even like order books in other markets. So what I would ask the CFTC to do is to make that a fair competition and see where the market leads.

MR. LO: Stephen?

MR. BERGER: One additional point I wanted to note, and I think Rana alluded to it at the start. The foundation's already been set for this next stage of the evolution of the swaps market structure. The CFTC's rules on straight-through processing really established the right execution to clearing workflow for order book trading to evolve. So trades are routinely now when executed on SEFs accepted for clearing within seconds, and every order that goes onto a SEF has received a pre-execution credit check. So the standing of any order in the marketplace on a SEF, irrespective of who's placing that order, is the same. There's already a clearing guarantee behind it to ensure that it's going to be accepted by a DCO for clearing.

So we've accomplished a lot and this is now just the next step to take what we've accomplished in building the right execution clearing workflow and allow that to start to improve the market structure that exists for trading swaps.

MR. LO: Darcy?

MS. BRADBURY: I'll just mention that when the CFTC allowed the SEFs to really get going, there was no comprehensive review of the SEF rulebooks. And I think what we kept hearing repeatedly from staff when we would go meet with them and discuss issues is tell us what the problems are. If there are specific rules, we don't necessarily have the resources to do a comprehensive review of all the SEFs, all their rulebooks, but if there are specific problems, bring them to us and we'll try to address them.

So I hope that's really what we're doing with this forum. And I very much appreciate, Commissioner, for creating the opportunity. This is a very specific rule that we think is really impeding competition and impairing open access, and I think it'd be great to see what happens.

MR. LO: Great. Well, we're out of time, so I want to thank all of the panelists for participating and thank Commissioner Bowen for giving us the opportunity to talk about these issues and the CFTC for giving the opportunity to deal with these issues as they arise. Thank you.

MS. BOWEN: Thanks, everyone, and particularly to the MRAC members for your time and your travel and your focus on today's issues. We have a lot of work to do, and I look forward to it, to work with all of you. Obviously, for the public that's out there, we want your ideas and suggestions as well, but great job. Thank you so much, Andrew. Thank you so much, Tom. Have a good day.

MS. WALKER: The meeting is now closed.

(Whereupon, at 1:30 p.m., the PROCEEDINGS were adjourned.)

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I, Mark Mahoney, notary public in and for the District of Columbia, do hereby certify that the forgoing PROCEEDING was duly recorded and thereafter reduced to print under my direction; that the witnesses were sworn to tell the truth under penalty of perjury; that said transcript is a true record of the testimony given by witnesses; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this proceeding was called; and, furthermore, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

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