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SWAP DATA RECORDKEEPING AND REPORTING REQUIREMENTS

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A G E N D A

Welcome Remarks and Overview of Current landscape for UCI

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Panel 1: Technical Considerations Concerning Unique Counterparty Identifiers (UCIs)

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GS1

MARK BOLGIANO
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KEN HAASE
NFA

PAUL JANSSENS
SWIFT

FRANCIS GROSS
Central European Bank

JOHN MULHOLLAND
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Panel 2: Operational Considerations Concerning Unique Counterparty Identifiers

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Avox/DTCC

SCOTT PREISS
CUSIP

PETER MARNEY
Thomson Reuters

GEORGET HARRINGTON
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BRAD BARTON
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Markit

OLA PERSSON
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Panel 3: Implementation Considerations Concerning Unique Identifiers

PAUL PUSKULDJIAN
Citi

ARTHUR MAGNUS
JP Morgan

MELISSA GOLDMAN
Goldman Sachs

TODD SULLIVAN
Morgan Stanley

STUART McCLYMONT
Deutsche Bank

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LINDSAY YEE
NYW Mellon

ALLAN GRODY
Financial InterGroup Holdings

BRIAN HOLT
Bank of America

RAYMOND TUBRIDY
State Street

Panel 4: Unique Product Identification (UPI)

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Goldman Sachs

BRUCE TUPPER
ICE

SUNIL CUTINHO
CME

ADAM LITKE
Bloomberg

KEN HAASE
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ELEANOR DREW
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Panel 5: Unique Swap Identification (USI)

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CME

JONATHAN WILLIAMS
Tradeweb

BRUCE TUPPER
ICE

RAF PRITCHARD
TriOptima

ARTHUR MAGNUS
JP Morgan

PETER AXILRODE
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Panel 6: Master Agreement Library and Portfolio Data Warehouse:

MICHAEL WILL
docGenix

ROBERT PICKEL
ISDA

ARTHUR MAGNUS
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PAT TROZZO
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Goldman Sachs

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P R O C E E D I N G S

CHAIRMAN GENSLER: I'm doing a little stand-in here for Rick Shilts, who is going to do the intro. Rick is the head of our Division of Market Oversight. Let me first just greet everybody. Thank you and the CFTC staff for arranging this roundtable on these critical issues. Rick would have been here, but given the ice and shoveling and everything, yesterday he broke his wrist. So, he's fine. He's home. He's alright. But I'm the stand-in.

More than that -- thank you all for doing this. I think we have six panels today on very important issues to a proposed rule that we've put forward. I think some of our colleagues and friends from the SEC are tying in by phone and listening. I know this will be very helpful for the SEC. We are hopeful, I think, that some of the folks from the OFR over at Treasury, which has been so helpful with this on data collection, too, is also tying in either here directly or listening.

But the effort really is to move forward with the proposal. I think a comment period closes February 7th, so everything that goes on here will be put in a transcript and be part of the comment period as well -- and comment file.

But more than that, it's about unique identifiers for three areas, as you know. For counterparties. For products. And what we call "swaps" or what I call "transactions." But I know they are swap IDs. And somehow, as the whole financial industry would be relying on these unique IDs for counterparties, products, and swaps to get the best advice on implementation -- on how to bring this all together.

So with that I think I've probably exhausted my role here and turn it over to David, Irina, and the team -- and thanking everybody who is going to participate today.

MR. TAYLOR: Thank you very much, Gary. I need to ask the court reporter. Are you set with names?

COURT REPORTER: [Inaudible.]

MR. TAYLOR: Okay, good. Well, we will dive right in. Thank you all for being here today. It's going to be very helpful for us to be sure that we get the technical aspects of these issues that we're going to talk about today right in the final rule.

I thought I would begin by giving a brief overview of the current landscape regarding unique counterparty identifiers, and then we'll jump right in to the first panel.

Over the last decade virtually all financial sector stakeholders have come to recognize the need for universal, accurate, trusted methods of identifying legal entities that are parties to financial transactions. A unique counterparty identifier, sometimes known as a "legal entity identifier," will be a crucial regulatory tool for enabling data aggregation across counterparties, asset classes, and transactions. That will enhance regulators' ability to monitor and mitigate systemic risk, prevent market manipulation, enforce position limits, and exercise resolution authority.

Full realization of systemic risk mitigation and transparency, which are fundamental purposes of the Dodd- Frank Act, cannot be fully achieved without mandatory use of entity identifiers in swap data reporting. And the identifiers would also have great benefits for financial entities in terms of transaction processing, internal recordkeeping, compliance, margin calculation, due diligence, and risk management.

At present no industry-wide entity identifier that is sufficiently unique, persistent, comprehensive, and open is available to serve as an industry-wide standard. In the absence of a universal entity identifier, vendors and firms and regulators have created a variety of identifiers. One of my colleagues at the Fed sometimes refers to these as "little silos of excellence." But they are separate from each other. This creates inefficiencies and expense for firms and can result in costly errors. And it also presents obstacles to regulators' ability to see a comprehensive picture of the market. Such partial solutions are often proprietary, restricted in use and redistribution, limited in scope.

We believe that at present we have a window of opportunity to create an open entity identifier that solves these problems. As noted in the proposed rule, the Commission believes that optimum effectiveness for a legal entity identifier would come from creation of entity identifier system on an international basis through a voluntary consensus standards body. The proposed rule sets out principles that the Commission believes must govern such a system. It also calls for reporting of information concerning affiliations of entities that receive a legal entity identifier.

The purpose of our first three panels today is to explore the technical, operational, and implementation considerations that the Commission should address concerning unique counterparty identifiers in its final data reporting rule.

And with that, let's jump into the first panel. I would remind you all, these microphones are "push to talk" so when you would like to talk, push the button -- the little red light will come on. When you are done, push again to turn it off. And if you can, don't let your BlackBerry or phone be on the table because they do feedback.

We do have, in a way, an extra panelist with us by phone this morning who is going to speak to us now as we begin. Francis Gross from the European Central Bank.

MR. GROSS: Hello. Good morning. I'm very pleased to be with you and I look forward to hearing the debate and contributing where I can.

MR. TAYLOR: We appreciate your being here.

MR. GROSS: Thank you.

MS. LEONOVA: Okay. I guess we are ready for our first panel. Before we start I want to thank CRTC staff for making it happen. Anna

Schubert and J.P. Rothenberg. Our administrative staff Margie Yates, Veda Allen and Joshua Griffin and Mike Johnson.

The first panel has more of a technical aspect for unique entity identifiers, or commonly known as "legal entity identifiers." I believe most of you have a list of question that we would like to discuss, but it is mostly for guidance rather than "let's make it happen."

So, I guess let's start at the first one: Are there any existing identifiers viable for use as UCIs or LEIs? What is the opinion, and what are the solutions?

MR. TRAUB: I would be happy to speak first to that one. I represent GS1 US, which is part of the GS1 organization. GS1 is a global voluntary standards consensus body. We've been in the business of developing standards for supply chains across a number of different sectors for nearly 40 years. Those of you who have seen barcodes on consumer products have seen the most visible aspect of what the GS1 system is, but that's just one type of identifier in a whole system of identifiers that we have.

And in fact, one of the existing, widely adopted standards within the GS1 system is an identifier for legal entities. It's an identifier that we call the "GLN" and it is a 13-digit identifier, which can be used to identify a legal entity, whether that be the parent of a corporation or a subsidiary or any other legal entity that requires identification.

The GS1 system is fully international. It's supported through a network of 108 member organizations, which is GS1's term for what are effectively operating arms of the GS1 standards body in 108 different countries around the globe. There's also a global office in Brussels that supports smaller countries that don't have a local office of their own.

The GS1 system is designed to allow identifiers to be globally unique and persistent throughout the world, and that's done through allocation of the numbering space to the different member organizations so that they can be distributed locally. And we can talk more about the technical details, but I'll just stop there and say that we believe that we believe that that identifier would be eminently suited as a UCI, and we believe it meets all of the requirements that have been set forth.

MR. BOLGIANO: I'll be glad to go next. My name is Mark Bolgiano. I'm here actually with three hats on -- as a member of XBRL US Board of Directors, as a member of the ANCI-X9 Board of Directors, which is the U.S. jurisdiction of ISO for financial standards -- particularly ISO 2022, and as the chair of ISO Working Group 5, which is looking at semantic technologies to get harmonization across standards.

I should also add that up until December I served as the Founding CEO of XBRL US, which came out of leadership from the SEC and FDIC and the use of standards for regulatory reporting, and is now being led in industry by DTCC, SWIFT, the accounting profession, and the technology profession.

We've obviously -- now that the SEC has implemented data standards for the origination and the issuance of reporting -- we've encountered the identifier many times as a limiting factor in the effectiveness of effective reporting and intake of data into various systems. And we have really addressed this by very aggressively pursuing the ISO standards that apply, because they met the criteria that we found were important. One is maturity of technology and the maturity of its use. The other is the system of governance -- a stable and strong global system of governance. The other was the economic model involved, particularly where it applies to the intellectual property in any identifier. And really the aggregate effect of all these, which is access, really. Access by regulators, access by the public, access by the partners who rely on an identifier for confidence in the information.

So, therefore, we are strongly recommending that the BIC standard, not only as it exists but as it will evolve under the governance that I've referred to, represents the best legal entity identify option.

MR. JANSSENS: I would just follow on to what Mark was just saying. So, we also believe from a SWIFT perspective we are the registration authority for BIC. BIC is in use in the financial industry for more than 30 years -- is already identifying entities in transactions and counterparties in transactions for a long time. So yes, we believe that an existing identifier can fulfill the role of legal entity identification.

We are bringing changes to the ISO standard. We are in the process of making a revision of the standard so that it even better fits the needs and the requirements as they have been described in the requirement from the CFTC. So that there will be a BIC only for legal entity identification, so that there will be a distinction between the BICs that have been used so far and the BICs that will be used for legal entity identification. No confusion between the two. Therefore we think that can serve the purpose.

MR. HAASE: I'm Ken Haase. I'm with the NFA. Those at the Commission I'm sure you know what NFA is and how long we've been working with an NFA ID. Over 25 years we have been assigning these through out registration system. And to date we have handed out approximately 450,000. Currently there are about 55,000 in use that are current at the moment. And we have had this system in place. We feel that it is a fairly strong system. We have given the firms the ability to go in and electronically assign these for the individuals that work for these firms. And I guess the one think I would add on there, from our point of view, is also the ability to go in an ensure that it is unique to the individual and the underlying functions that you need in that system to go through and make sure that you are not duplicating these IDs, either for firms or for individuals.

MS. LEONOVA: Going forward, you know

what a great job you do individually. Now let's try to get together and define what you can see that to be in theory -- desired and optimal structure of the identifier -- without referencing your particular system.

MR. BOGLIANO: I'll be glad to start. I think that my input would be on the question of centralization -- on the assignment and validation that I think that a lot of the questions we've heard asked on this subject presume a certain level of centralization. And speaking as a CIO for 25 years, and someone who is now just returned back to that type of role, I can tell you that today's technology environment probably will not tolerate what has historically been the optimum choice, which is absolute centralization of validation, storage, registration.

If you look at the models that are working today, whether it's for IP addresses or for web URLs, while there certainly has to be a central authority -- there has to be an authoritative source -- I would say that "federation" is a concept that should be considered in any solution. Everyone at the table here has provided a certain level of trust and confidence through the numbers that are being assigned and validated, ensuring that they are unique going across supply chains.

My input would be that, while we do need a central authoritative source, that the federation of the assignment of numbers -- and again with the objective of access being central to the thinking -- is very important. The other concept, and then I'll conclude, is that we not try to give the numbers any payload of information. The numbers should be abstract and unique. I think most models today that try to include location codes, branch numbers -- I don't think in the long term those are as sustainable. And this is what I'm referring to in the evolution of the BIC number, not to mention the specific. But I think all of the options being examined, that's a general trend. So that's my input.

MR. TRAUB: I'd like to amplify some of

the comments that Mark made. I think we're in complete agreement as to the principles there, and I'll just support that through some experience that our organization has had in assigning unique identification in an international environment in particular.

I think decentralization is absolutely essential for success in an international environment simply because -- particularly when we're talking about legal entity identification in the financial industry -- for many nations this is an issue of national sovereignty. And there are different laws and regulations that apply in each jurisdiction, and it's only through a federated model that one can accommodate all those, while still creating a framework in which there is standardization worldwide and therefore the ability to have that single unique identification.

Typically the way this is achieved is by having a global numbering space that is then divided in some way across regulatory regimes, to preserve uniqueness worldwide, and then within each of those divisions, allowing the local regulators or authorities or issuing agencies to work within that space and then apply any local considerations that apply there.

We also believe there is merit in taking the decentralization concept one step further and allowing individual counterparties to ultimately be the issuers of individual identifiers by allocating a range of numbers to companies that need it. Then they can issue their own identifiers and then register them in a separate operation.

And the decoupling between the issuance of the number itself and the registration of associated reference data we think is also a very important technical ingredient because it helps facilitate different types of expertise. One organization responsible for maintaining the numbering space and being very neutral -- letting other organizations that have deep expertise in the data and in financial services handle the registration of the accompanying reference data.

And that's a feature of the GS1 system as well.

I think I would also just amplify the points that Mark made about what we call the "non-significance of the number," Meaning no information or intelligence embedded in the number. I think we can point to many examples from experience that show that any attempt to embed intelligence in the number usually runs into pitfalls further down the road. And so we would also support that as a technical characteristic that's important. Thank you.

MR. TAYLOR: Let me ask a question to follow up. If you have a system that decentralizes the issuance of the identifiers themselves, can you elaborate a bit on how you would ensure that they all stay unique?

MR. TRAUB: Yes, it's actually a pretty simple principle. In the case of the GS1 system, the way that works is that when the numbering space is divided among the various national and regional authorities, we use the first few digits of the number to ensure uniqueness. So, numbers issues in the United States begin with a "0". Numbers in the U.K. begin with a "5", and so forth. Very similar to what you see with International Dialing Codes for telephones.

That principle extends downward as you decentralize through to individual companies issuing identifiers. The key there is not to try and associate any intelligence with that. You use that as a means to divide up the issuance of the numbers, but what you do not do is say that once a number is issued you can then parse out those components and try to learn who owns it. That has to be done through associated reference data.

What all that dividing up the number is, is a means for decentralizing the issuance of it. And in the GS1 system, that's done actually with a variable-length system, so the division lines between the different parts are somewhat flexible, which allows capacity to be tuned as you distribute the codes through the world.

MR. HAASE: I guess I would just echo both what Mark and Ken said in regards to keeping the intelligence out of the number. Just about any time you've gone and built a system and you thought this is exactly -- we've figured out everything that could possibly go in that number, about a week after it goes live you find that one item that is not included or something else comes up. So yes, definitely keep that intelligence out of it.

MR. JANSSENS: Yes. Same comment. Getting out all the intelligence from a code is essential, because what counts when a code has been assigned, that the code does not change because something is happening. And that's really important and that's what should be considered is that not only there is no intelligence in there, but also that the code is perpetual and persists whatever happens to the entity which has been identified. When something is happening to the identity, that must be processed through the attributes, the reference data which is attached to the number, not in the number itself.

MS. LEONOVA: Can we discuss what

reference data you consider to be important and what characteristics it has to have?

MR. JANSSENS: Well the characteristics are the attributes that we need to consider, and in terms of attributes there are a certain number of unique attributes that will enable identification of the entity itself, which is its legal name, which is its registered address in the country of incorporation. Those is the basic information that is needed.

Next to that you need to have data base management attributes, which enable to sort out when the code has been created, when the code has been validated, when it has been updated, when it eventually expires -- because a code can expire if the entity disappears. But those elements will help make sure that by looking across all the entities you can identify them uniquely and that there is no duplication of entities so that the code is unique.

MR. BOLGIANO: What Paul is describing is a discipline that's been awhile for a while, called "master data management." This is marked by identity, provenance of the data -- as Paul has pointed out about the chain of custody, and then the security and privacy of that data that results from good management of master data and reference data.

And I think that the challenge of course comes, first, when the reference data changes, because generally the reference data is not a transaction, it's an entity. So changes to that, such as -- we're actually involved in work right now with corporate actions. Corporate actions are changes to the securities master. And also when these are referenced across large networks.

And so a huge network like SWIFT, this is why, if you'll forgive me, I think one of the big reasons why SWIFT is in the standards business, because the standards applied to that reference data is so key to the integrity of the movement of information across networks. And when I say "networks" I don't mean the cables, necessarily. I mean the network of business actors, investors, general public -- for transparency here in the United States, and regulators.

MR. TRAUB: I would just add to that that obviously we need to understand exactly what reference data we wish to associate with identifies. I think equally important is attention to the process by which those determinations are made. And you can understand that by considering that the answer to the question "What is an appropriate legal entity identifier?" -- the answer to that question is one that we hope is very stable over time. The question of "What reference data do we need associated with an identifier?" is an answer that evolves over time, as business conditions change, as new requirements emerge for understanding what that data means.

And so therefore we believe it's very important to have a very robust global standards process for establishing the definitions of what reference data is to be associated with identifiers. In GS1 we have experience developing reference data for consumer products and other types of supply chain entities. And we have a global network that allows that data to be synchronized worldwide through a federation of different databases. And we bring end users together to develop the standards for exactly what that data is.

One of the things we've learned in that is that one has to balance core needs for reference data that are shared among all participants for virtually all applications. And for legal entity identification those are basic things such as name, location, contact information, relationship to other legal entities.

But then beyond that you have more and more specialized data that is maybe application specific. So perhaps there's reference data that applies to legal entities who are broker-dealers as opposed to different information that would apply to a different type of entity. It's important to have a very extensible and manageable modular structure there, because in order to actually get good reference data -- data that is actually supplied accurately by the participants -- one has to keep it as simple as possible, but not too simple that it fails to meet business requirements.

MS. LEONOVA: May I ask follow up questions? How do you ensure extensibility of an identifier?

MR. TRAUB: Well, for the identifier itself -- and that's a separate question from extensibility of the reference data -- but for extensibility of the identifier the basic principle we believe is to reserve a part of the structure for future expansion. So that may mean that there's a first digit that has an unassigned value that can be used to indicate an extension in the future. There are a number of techniques for doing that that are fairly well established.

To give an example of our experience doing that, the UPC code that you see on products began as a 12-digit number in North America, and then when it expanded to worldwide use, the capacity was too limiting, and so a 13th digit was added. And the way the extensibility worked was that digit was implicitly zero in North America where it didn't exist. And so zero was not allowed to be the first digit anywhere else in the world, and that way the 12-digit and 13-digit code could co-exist for a period of time. And then there was a period of controlled migration and a sunrise date at which information systems around the world were required to accept both forms. And that's actually happened twice with the product code. Our legal entity identifier has not required that extension because as of now it has pretty large capacity compared with anticipated requirements. But that's the basic principle.

MR. JANSSENS: From an extensibility point of view of the code I think you need to make sure that the code from the start is large enough to cover the whole scope, because otherwise you start to have intelligence in the code itself. So I think that the code must cater for what is needed from the beginning. Later on you have the extensibility in the attributes. If the market evolves -- if the industry requirements are changing, then you can manage that with the attributes which are attached to the code, and you don't have to work with changes in the code itself, which from a data base point of view -- from a data base management point of view -- if you have built your data model based on a certain structure of the code itself, you have to change it because that is your root key.

So we think that the code should no longer change once it has been defined. But the attribute, you have all the flexibility that you want -- to add attributes, to remove attributes, or change them as you see fit going forward.

MR. BOLGIANO: I'm just going to add a very brief remark, which is general although relevant to this, and relate the experience of the XBRL introduction to issuers in the corporate, publicly traded world -- mutual funds -- that what you're hearing discussed here reflects a combination of mandate and market acceptance. And in fact we found that one without the other has a very reduced chance of success.

And so I would urge the CFTC, in considering the plans to -- while it's possible to mandate a system once a system is determined, that more than half the battle is in thinking about what contributes to market acceptance -- to the user acceptance here. And your use of the word "stability" -- even a perceived lack of stability will have a drastic impact on market acceptance.

MR. HAASE: Let me just touch on two things. In whatever system the Commission ends up going with, you have to understand and appreciate the amount of time it will take the other systems to accept this new number and what has to be modified in those systems to allow everyone to adjust to it. That's number one.

And number two, the other thing, is the security behind it. For people to accept the system, there are going to have to know that the data they are putting into it is secure. They're going to want to feel very comfortable before they start giving out all this information. What information varies on which country you are dealing with. But the security, and then once gain the time to modify other systems to accept this number.

MR. TAYLOR: Let me ask you a follow up question. Talk a bit about the time you think would be needed.

MR. HAASE: The time needed. And that's going to depend on the system you are dealing with, so I surely can't speak for anyone else sitting around this table. But the time needed depends on the number. You're going to have to have the ability to -- if you take one system and try to impose it on a second system, there's going to be a big matching process. Now it depends on how many people and entities you're dealing with -- to understand that all the Ken Haases over here and the Ken Haases over here are actually the same person, and make that match.

So the time is going to be dependent on

the size of the system and also the resources behind going through and doing that match. So it's very hard to put a specific timeframe on it.

MS. LEONOVA: But going back to this implementation plan, what characteristics do you believe a mandated code has to have in order to be accepted comparable to -- adjustable to current systems?

MR. TRAUB: I think it's critically important that the timelines and the procedures for that period of migration have to be developed with consultation from the stakeholders. And really, you have to get a lot of input from the stakeholders involved to ensure that what is actually mandated is ultimately doable, and doable in an effective manner.

Our experience in doing various sunrises of new codes and other things of that nature has borne this out time and again.

MR. JANSSENS: I would build on what has been said, and also referring to some of the other questions that you have in there -- do we use an existing code or not? Or should we start with a totally new code? If you start building from an existing standard, from an existing scheme, you get adoption faster. And the processes are in place, so the timeline will be shorter if you start with something that exists already.

MS. LEONOVA: How much shorter?

MR. JANSSENS: That depends on the quantity, and probably what Ken has said as well. Depending on how many entities you need to identity, if you talk about 10,000 or 100,000 this is business as usual. If you talk about millions, that needs to be a different perspective.

So if we talk about in the 50 to 100,000, it can be done in a couple of months -- a handful of months, I mean, 5, 6 months, whatever. If you talk about millions, I think we need to have some more time to make sure that the process is robust. The time is one thing. I think the important element is quality. Because if you launch something, it must be bulletproof from the start, because as Mark was saying, adoption is important as well. If you have leaks in there, you will have resistance to usage of it, and you have the risk that it's not global, that it's not unique. And then you need to start to cleaning up what has been done.

So I think it's more important to look into making sure that starting small with good quality -- I mean, 100 percent quality -- and then build from there. So it's at the first stage and the first building block, and then contribute to that going forward.

MR. TRAUB: And I think in addition to that there has to be a lot of support on the ground from the agencies involved to support end-users in understanding the new rules, understanding how to adopt so that -- a forum for sharing experience so that it gets easier and easier as more and more companies join that adoption process.

And if the goal is to create an international standard -- an internationally-accepted identifier -- then that support network has to be available on a global basis and available in a way that is tailored to the local market conditions and cultural conditions and language conditions that exist in each of those places around the world.

MR. BOLGIANO: At the risk of oversimplifying, I'm going to say it boils down to usability and accessibility. Five hundred million Facebook users have created a unique identity in the last three years. Five hundred million. You know, that's a reflection of a certain level of usability and access. Again, I know I'm oversimplifying here.

You can impose a mandate and it could take forever. Or you can consult with stakeholders, build on an existing standard that already has global reach, and you could find the timeline much shorter. This is a really difficult question, and actually I was looking forward to watching the operational and implementation panels squirm over this question. I'm disappointed that we got it first. [Laughter.]

MS. LEONOVA: Maybe a naïve question, but where do you see more problems? On the hardware side or software side?

MR. HAASE: Software.

MR. BOLGIANO: I'm going to point out the obvious.

MR. TRAUB: Yeah.

MR. BOLGIANO: Hardware is trivial. This is not a hardware problem.

MR. HAASE: I agree.

MR. JANSSENS: Yeah.

MR. TRAUB: You know, the quantity of legal identifiers -- legal entity identifiers -- is miniscule compared to the quantity of trades, for example, that happen every day. So the volume of data that we're talking about here, from the financial industry's perspective, is not a stretch at all. The difficulty here is in the business processes around adoption of something new, migration of systems, all of those things. And that's really a software problem and a people problem, and not so much a hardware problem.

MR. JANSSENS: Yeah, I would concur.

MR. GROSS: If I may come in. Francis Gross from the ECB. Just a short remark. I think that observing the industry you see that they just know where to converge, in terms of standards. And once a standard is backed by international institutions and by law in several countries for mandatory use in reporting, the industry will know where to converge and then it's just about the normal update of processes and system over time. It will take time to migrate, but once it's there, they will go to it.

MR. JANSSENS: Yes, I confirm. It's not a software or hardware, it's a process. It's the analysis of the data on the one side, as I mentioned, that the quality is there, so you need to have robust processes to analyze and make sure that you don't duplicate entities or codes for entities. That's the most important on the allocation of codes. And then on the usage of the codes, it's to make sure that the processes and the systems have been adapted to in-take that code and to transport it so that it can fill the requirements of reporting.

MR. BOLGIANO: First, I want to say hello to my friend Francis, whose speaking to us from Frankfurt, and to recognize that two years ago he was a block away from here in my office talking about the concept of a "data utility." And I really think that's a very good description that captures a lot of these characteristics that you're trying to determine in this roundtable.

Francis, correct me if I'm wrong, but I think one of the first things that we discussed as a limiting factor to an effective data utility is identity management.

MR. GROSS: Yes.

MR. BOLGIANO: And the identity of entities. Now we're talking about a utility that's much like the electrical grid in the U.S., in that there won't be -- whether because of national boundaries or for just practical operational purposes -- it is going to be a network. It is going to be distributed.

The things that are built into networks that are resilient now, I think, are worth examining to apply -- even if they are translated from other contexts -- whether it's power or phone or telecommunications -- into this. It's the same kind of replication, validation, authentication. But also the ability to decentralize and federate as part of that decentralization.

The Internet was created to survive a devastating attack on infrastructure, and it evolved into something that's now serving a huge public good. I think there's just as much potential for the SEC and the CFTC and Treasury with OFR to create just as big of a utility that will have just as much of a profound effect on our economy.

MR. JANSSENS: I link to that also the Europeans. Because you mentioned the U.S. regulators, but also together this is a global solution. It's globally adopted. It is to be combined and converged, because the firms which will have to comply with this, they are also in all areas. So it needs to be one system mandated globally by the regulators so that the firms can adapt. And that they only have one system to adopt.

MR. GROSS: Perhaps to that point, in his speech on 19 October 2010 at the ECB Statistics Conference, Jean-Claude Trichet, the President of the ECB, called for a reference data utility that would be operated on the basis of an international agreement. That could be something now in reach if we take the OFR as the first step, and similar efforts in Europe in the legislative sphere -- if that can come to fruition, others will join as well. It can grow in a modular fashion.

And then the technical structure of the data bases, whether they will be structured as a network or whether there will be a central repository somewhere, that matters less, as long as there is the assurance that the data is strictly standardized -- not just harmonized -- but strictly standardized across the board.

MS. LEONOVA: And I want to follow up on John Mulholland. Are you still on? John? Okay I guess we lost somebody in the process. He got excited.

Okay do we have any other issues you think we should discuss to the interests of our panel?

MR. BOLGIANO: No questions. Thank you.

MR. TRAUB: Thank you.

MR. HAASE: Thank you.

MR. JANSSENS: Thank you.

MR. TAYLOR: We're a bit ahead of schedule, but I guess that's better than the alternative. Let's switch to panel two. Would the panel two people come up.

All right. This is our second panel. We're moving to Operational Considerations Concerning Unique Counterparty Identifiers. Some of this was touched on by the first panel, but that's nature. Let's move first of all to the question of what utility or registration authority can assign and maintain UCI in compliance with the principles in the proposed rule and on the timeline of our final rule.

MR. CHIDSEY: I guess I'll start. This is Ed Chidsey from Markit Group. I'm responsible for our pricing and reference data businesses. So just to start off, I'd like to just thank the Commission for the invitation to participate in the panel today.

As many of you may or may not know, Market has deep experience in the entity and reference data identification space and has played a critical role in providing identification reference data for risk management trade processing settlement purposes throughout the financial markets and primarily in the OTC markets. And we're looking forward to participating in today's discussion and learning from the other panelists and hopefully contributing based on our experience.

So with respect to this particular question, with proper governance and oversight, our view is that really any third party service provider, whether it be a data vendor or a utility that has experience in the entity identification space, could play this role. Again, the key here would be adhering to whatever standards are set, having some sort of an industry and regulatory oversight committee that would be able to participate and monitor the operation of such entity and see that it adheres to the guidelines that are agreed.

MR. HARRINGTON: George Harrington from Bloomberg. Also thank you very much to the Commission for the invitation to appear here.

We work as a provider of execution services and more likely than a swap execution facility. It is very attuned to the needs as far as the unique universe of users that are out there, not just from a data standpoint but from an actual execution standpoint as far as identifying who the counterparties are to a trade.

When you move to an execution mode in today's world, obviously in OTCs derivatives and other asset classes, it's a very bespoke market, and I think the move towards a unique identifier system is something that will increase efficiency and certainly assist with vendors like ourselves and our competitive being able to track and certainly to identify from whatever our reporting needs are also required, put information out to the market as required by the legislation.

MR. MARNEY: Maybe I'll finish out this side of the table. Pete Marney from Thomson Reuters. Again, thank you very much.

So I don't think any of the existing identifiers are fit for purpose in the guidelines that have been laid out. They would require a fair bit of change, which is possible, but I would like to raise the point though that achieving the guidelines of no intelligence, extensible permanent, which means that you never delete and so forth, is relatively straightforward to achieve; and I think that can be done, but as soon as you do that, then you're putting all the burden on the reference data that sits behind it, the data model, the business rules, the presentation of the data, the relationships that come with the data. In effect then, the unique identifier really just become the tip of the iceberg, and so much more of it has to happen below the line. I think that's what really merits the most focus and the most attention in this because that's what is going to drive the value.

Doing that in a federated way I think would be extremely difficult, and it's very difficult to manage if you have all the individual participants who are responsible for managing that content. Not to say that necessarily centralized is the way to go, but having it all federated makes it very, very difficult to do.

MR. GROSS: Francis Gross. Just very briefly, I tend to agree with the last statement. However, the process is organized, it would be much better if every data set went through an obliquity point of passage, a unique one, wherever it comes from, wherever it goes after.

MR. PREISS: Thank you. I'm Scott Preiss. I'm vice president for CUISP Global

Services, and I'll follow suit with my colleagues and thank you for the opportunity to be heard today.

I'm really here to share our experience as being a numbering agency in the U.S. and Canada and 35 other countries for the past 40 years to provide unique identification for issuers, obligors, and underlying instruments. So that is quite broader in the public markets than today's specific discussion, but nonetheless, it seems to us that there are existing frameworks, including the international standards bodies as well as industry subject matter experts, including information providers, that have already existing structures, know how to perform the duties and obligations of a registration authority, and have existing infrastructure and expertise.

So we very much see this progression as a collaborative model and really one of the key challenges, of course, is putting one's arms around who the key stakeholders are, who the subject matter experts are, and in the end only execution and sustained investment and commitment over a long period of time will meet the industry requirements.

MR. JORDAN: Hi. I'm Ron Jordan. I'm wearing two hats here today, Avox and DTCC. Briefly, DTCC is a participant on ad cost utility that is based in New York but is certainly global in reach. And Avox, which is a wholly owned subsidiary of DTCC, is one of the world's leaders in the maintenance and validation of legal entity identification. It has been around for about 10 years. It is UK-based and was purchased by DTCC back in July.

We believe that, obviously, this is not just a CFTC issue. Whatever happens here, the SCC is watching and in particular the OFR, and whatever solution comes out of here needs to be a single solution that can apply to all plus eventually European regulators.

We believe there are two functions here, and I think Peter touched upon this briefly. There is the assignment of the number or the registration authority, but then there is the activity to validate and maintain the database, the attributes of the database, and make that available to the public or to whomever else, which is, we think, a lot more challenging than simply the number assignment.

And then finally, we believe that the characteristics that a utility or registration authority need to have is several, really three. Number one, there needs to be proven capabilities, we think, to get to market quickly. Second, we believe that this needs to be a global solution, and there needs to be global acceptance to whatever solution is undertaken. Third, there does need to be proper governance because the facility will change over time, and those who are most affected by it, those who are paying the cost, need to have a place at the table in governing the utility on an ongoing basis.

MR. PERSSON: Complementing on that is that you asked which utility. So first, what is a utility? I mean, we are serving the financial industry, governed by the financial industry now for more than 30 years and considered as a utility by the largest firms.

I think to come to a solution for legal entity identification, it must work through collaborative models because it is too important for the industry at large to look only at it from a unique perspective. It has to be between partners this can work, and I think that's how it will be utility; and the governance beyond these utilities is important as well.

MR. TAYLOR: Let me ask you all a followup question. I think I heard, but tell me if I'm right, a general view here that you all believe there ought to be a single utility/registration authority for the issuance rather than multiples; is that correct?

MR. PERSSON: I would say what's important is the responsibility. It can be distributed, but somebody must have the responsibility to make sure that the criteria that must be defined about quality and adoption and distribution of the data are met; and that is one responsibility. All that is distributed is the responsibility of that registration authority or the partners in this picture.

MR. GROSS: Francis Gross. Perhaps we could differentiate the debates by considering that the process will have several stages, and that each stage could be subject to different organizational settings. Some stages data production, for instance, might be decentralized, but this obliquity point of passage could be central.

MR. CHIDSEY: I would argue that what's most critical is a global standard and global agreement on how the utility or utilities or firms that are running this would operate. Theoretically, you could divide responsibility amongst jurisdictions, but the most important thing is to ensure that there is a global set of standards and guidelines.

MR. JORDAN: I would second that, but I would also say we do believe there is a distinction again between the registration authority and the utility which is managing this. So while you don't need the same entity to perform both functions, we do believe it's probably most effective if you have a single organization responsible for each.

MS. LEONOVA: Again, let us catch up our new participant, Ola Persson from FINRA. We already started 15 minutes, so if you want to make a quick introduction.

MR. PERSSON: Sorry. Yes. I'm Ola Persson from FINRA. I'm the director of trace and fixed income strategy within transparency services. So to the extent I can help by shedding light on transparency services.

MR. TAYLOR: We started a bit early, but we've begun just with the first question about what utility or registration authority can assign and maintain a unique counterparty identifier. Do you want to jump into that discussion?

MR. PERSSON: No. If you don't mind, I'll listen for a little bit since I just walked in.

MR. TAYLOR: Sure. That's all right. Thank you. Another followup question. Our first panel, if I understood properly, was saying they thought the time to implementation for a unique counterparty identifier would be quicker if we can find a way to use an existing identifier and elevate and adapt it as needed but not to go down the road of creating something new from scratch. I think I hear you all saying something similar here that we might move more quickly to implementation if the utility registration authority is an existing organization adapted for the purposes. Am I hearing that right?

MR. PREISS: I would like to react to that. To the extent that any collaborative model already exists in the industry and is at least satisfying some of the requirements that have been set forth, I wholeheartedly agree that existing infrastructure and subject matter expertise should be used.

And if I can just add on a comment to

your prior question in terms of is a single utility the best model. Now I agree with several of my colleagues around the table that there seems to be a difference between a registration authority and the underlying utility function. Ultimately, there needs to be a single accountable source, and being in the unique ID business for as long as CUISP has, we know firsthand whenever that cannot be tolerated is duplication. And so if we have multiple parties generating multiple identifiers simultaneously in any sort of shared pool model, that sort of defeats the very purpose. So there is room for collaboration, but in the end there needs to be a single accountable party.

MR. JANSSENS: That confirms what we said, and I don't think there is anything to add.

MR. MARNEY: So to the prior question, we agree. I think it could be a hybrid solution, and it could work very well.

To the current question on the table, I think using the existing is a good bias for entering into the decision or entering into the analysis, but I don't think it necessarily is a foregone conclusion. Again, to tell you for sure, for us internally, we decided to go new rather than adopt something that was existing. It made a lot more sense for us. I think it just requires thorough analysis.

MR. TAYLOR: Now when you say "going new," you're talking in terms of a utility registration authority?

MR. MARNEY: Right. Rather than adopting an existing standards.

MR. TAYLOR: Right.

MR. MARNEY: But I think going in with the bias at the outset to look to extend an existing because there is infrastructure in place; there is networks in place; there's processes, and there's software that can be extended and so forth is probably a good place to start but not necessarily the obvious answer or the foregone conclusion.

MR. HARRINGTON: I think from the perspective of Bloomberg, our firm connects to everyone around the table in one format or another, and I think we're all experienced with the matching tables that we have, which is our identifier to another identifier to another identifier. Therefore, the move to use some existing infrastructure I think is definitely a good idea, but it is the question of how do you start that process because, you know, there are so many standards that are out there right now. And they're mainly disparate obviously. You know, DTCC in this space has done a lot of excellent work as far as at the legal counterparty identifier level. So I think, you know, that's someplace where you can certainly look to start, but I think that because there are so many standards out there that it's going to be something that has to be evaluated carefully as far as a system that everyone can use.

Then the next question, and I think there will probably be a separate roundtable on this, will be the interconnectivity standards as far as how those are going to be communicated.

MR. MARNEY: One further thought too is scale, right. Depending upon exactly what you're trying to address, and some parts of the documentation talks about extending this to all financial instruments in all jurisdictions. And then that just explodes it expedientially, and I think that makes it a very, very different game than if you're talking about a relatively finite universe.

MR. JANSSENS: This ties back to what we said in the first panel, is adoption by the industry and the cross- referencing is a key element because all the industry, as constructed one way or another, it's internal system for identification of entities. And this is bespoke. This is legacy, but it is embedded in all the systems in any large firm.

What is important if we want adoption and global view so that what needs to be consolidated can get consolidated based on one foundation block, which is this unique legal entity identification, in order to make that adoption, it need to cross-reference to all the existing codes which are out there, which each firm has already cross- referenced to its internal legacy system. And that is where this will gain traction and adoption.

MR. CHIDSEY: I think the next panel will clearly be interesting to get a perspective on the implementation challenges and what we need to consider because ultimately whoever the authority is really needs to ensure that it's something that is going to work and be easily integrated, or as easily integrated as possible into the various processes and systems.

But, again, you know, similar to some of the earlier points, the relevant thing here is for whatever authority and whatever firms are involved in this should have experience, should have the infrastructure in place.

I think the identifier itself is something that, you know, collectively will come to what that ultimately should look like, and there's probably not a specific solution out there today that's perfectly fit for purpose or will adhere to those standards. So the identifier itself will need to change, but ultimately having, you know, the infrastructure, the capability, and the knowhow within the organization in this space is going to be critical to make it successful.

MR. TAYLOR: You actually started on the very next question I was going to put to everyone. Let's do that.

Can we sort of collectively list here what you think the characteristics are that it's essentially for the utility or registration authority to have?

MR. JANSSENS: Let me start. I think the first characteristic is experience and infrastructure in place, and that is also adoption already of the code by the financial industry is also a key to start because that will help making the whole thing glued together and going forward.

MR. PREISS: I can add to --

MR. GROSS: Such a utility should certainly be nonprofit, be placed under irreproachable internationally accepted governance with technical competency, neutrality, and permanence.

MR. TAYLOR: All right. Scott, I think you were next.

MR. PREISS: Thank you. Getting back to the characteristics of a UCI and ensuring that there is uniqueness. You know, in addition to Paul's comments, certainly there needs to be assurance upfront that records of legal entitles are vetted, both from a system perspective, and although I know there are different viewpoints on this, you know, probably in a manual or personal fashion as well, the key attribute of any unique identification system is exactly that. We need to guarantee uniqueness, and so whatever utility is ultimately arrived at needs to be confronted day in and day out with simple examples, ABC, Incorporated, ABC Limited, ABC LLC, and that decision needs to be made in real time to the earlier point about time to market and effectiveness.

So one of the key characteristics perhaps should be guaranteeing that there is primary source documentation to back that up. An analogy in the public markets would be having a draft perspicuous in the pre-trade space to ensure unique identification of an issuer, an underlying instrument, perhaps an obligor. The same sort of construct, we think, would be essential to a characteristic of a system here.

MR. JORDAN: Yeah. I think we agree that the characteristics outlined in the release are all valid, and many of those have been discussed here, proven capabilities, global acceptance, governance, et cetera.

I would say though that if you look at -- you know, Scott just mentioned some of the registration components. If you look at the utility components, I do think the expertise piece in maintaining and validating legal entities is very important. That really does mean how is the database populated? How do you go from 0 to 40,000 or 0 to 2,500,000 if you go to the full extent of OFR? How do you do that, and how do you do that quickly and accurately?

I also think the maintenance component about how do you continually validate things that change and how do you have a process to do that is a key characteristic of what needs to happen as we move forward.

MR. MARNEY: So I completely agree with Ron's comments. I think there are challenges with the uniqueness and the assignment of the codes, but I really think the real challenge here is in the management of the data in the background.

And going back to the previous panel, I think it was Mark's comment about Master Data Management, and you need some real proven capability there. Absent that, you know, right now you have very little transparency and insight because there isn't the standard. If you create a standard for the unique identifier but not what flows below it, all you've done is push the problem one step downstream and you're back in the same place.

MS. LEONOVA: May I ask a followup question. Sorry to interrupt you. It looks like we're talking about assignment of ideas by centralized (inaudible) and self- certification of an ID of guidance number. Do I understand you correctly?

MR. MARNEY: I think for me, my view would be that the assignment of the number can be very distributed or federated. I don't think that's really where the challenge is. There are plenty of examples of telephone numbers, IP addresses, and so forth, Facebook -- not Facebook. I'm sorry. It's not a good one, but IP addresses or phone numbers that work very well. I think it's what follows on from the data that supports those IDs is where the challenge is.

MS. LEONOVA: Yeah. But that's what I'm trying to get. So if you go with an assignment process, it's going to be centralized by the function to validate the accuracy of this data. If it is self-certification, we would assume that the party who self-certifies provides us data, and somebody has to scrub it for accuracy.

What is the benefit and drawback for each model, or do you have references?

MR. CHIDSEY: So I think both models probably need to be explored. Self-registration is something that certainly could add a lot of benefit and efficiency to the process in terms of legal entities coming forward, registering themselves, potentially providing documentation. That documentation would ultimately need to be validated, but that could go a long way in terms of improving the efficiency and timeliness of these entities that need to be created and maintained.

And just one brief point to the prior question. One thing that shouldn't be underestimated is the amount of effort required to, you know, not only maintain but distribute and support the information that is going to be put into the marketplace, support the clients, the consumers of this information.

Whoever the authority is will be a core

part of the market infrastructure and really needs to have experience in those sort of support processes and addressing issues and concerns, and many of us around the table do, but it's just something that should not be, you know, looked over because it will be a very important part of the overall process.

MS. LEONOVA: I'm sorry to be one-trick pony, but what is the most efficient, both from technological standpoint and from cost standpoint, the way it validates the data? Is the reference data for (inaudible) you're talking about?

MR. JORDAN: So I think there's two primary methods that keeps getting bunted around. One is a self-registration model, and one is a contributing model. Our opinion is that you need both, that one is not sufficient. A self-certification model or having the entity register themselves, the information would still need to be validated. You need to validate, did the person who is submitting it have authority to do that? Was the information accurate, et cetera? And then there needs to be some type of change management process, even with self-validation. If something changes is that entity now required to submit that? We believe that some of that, if not all of that, may require some rulemaking to enable people to do that.

If you look at the other model, which is contribution, this is really the model that the Avox is based upon today, although the Avox does incorporate self- registration as well. But that's where a systemically important firm or any entity submits their information on their counterparties, and that could be 10s or 100s of thousands of them to a database. And that gets scrubbed by a group of analysts, including being able to be self-certified. It goes to public reference sources, registration authorities in the jurisdictions as well as other sources.

This is a very important component as well because what happens is, as we know, if you look at the top dozen broker dealers or banks in the world, they have a large overlap of clients that they deal with, counterparties. So what happens is you start to develop a network science.

Now I know Wiki is a bad word, but if you look at it in the best sense where you get a network contribution where seven firms or eight firms are dealing with the same entity, and they're all submitting information. They help cleanse that information themselves, so you do get a network effect. And what we have found in experience is if you have seven firms saying that an entity is defined with certain characteristics and then you have an eight firm who says it is different, it is usually the eighth firm who is right because they have some new information. They've been doing business with the client, and there are some updates. So those events will trigger scrubbing, additional scrubbing.

So there is a place for self-registration or self- validation, and there is a place for the contribution model. And we believe that the right solution should combine both, and, again, that's what Avox is based upon today.

MR. JANSSENS: Yeah. Confirming that we should not make a selection between one or the other. The two are important, and the two will build upon each other. Also you had a question before about timing. If you look at self-registration only, your time lap will be much longer before everybody comes voluntarily to register itself. Whereas if you work by combination of both, the contribution model will help you gain the first layer of the data faster.

MR. MARNEY: So I understand the distinction in the question you're trying to ask. I guess in practical application of that I struggle to see where it's very different, but, again, I come from the bias of a vendor I suppose and the certain ways that we operate. One quick example would be corporate actions. So if you're going to allow the self-registration and the self update of that data and you're going to scrub it centrally, the person that's central still has to go collect corporate actions to be able to validate. There is no source to go get it.

Corporate actions is one of the biggest things that plagues the finance industry in keeping that accurate and keeping that up to date. It is still very, very difficult today even with standards out there that are really growing and getting adoption. So I think it helps it and having the combination is good, but you certainly can't have the self- scrubbing and not the self-registration. You're still going to end up having just as large an effort in the central to make sure that you got it right.

MR. PREISS: I'd like to build upon some of the issues that Peter just raised. We're very intrigued by the notion of self-registration since we have so much experience in the contributed model. It seems to us that there's a bit of moving the burden of applying in a standardized fashion from a central utility to the entities themselves, and we wonder out loud what the motivation would be for entities to not only self-register but, to Peter's point, track the life of that entity over time and contribute corporate action information, which is critical to efficient financial markets.

So your original question was about benefits and drawbacks. I wouldn't call that a drawback but really an open question. How does that model work in practice?

And so that leads directly to the second part of your question related to cost. In the end, if we don't end up with a single unique identifier, then what seems to be very cost efficient upfront in the end is not. So we wonder out loud as well.

MR. CHIDSEY: And just one final comment. I think we're probably all in agreement in general, but, you know, it is a combination because ultimately if I look at personally what we have today in market red, which is reference entity information for the CES market or a market entity identifiers, which are used to identify counterparties transacting in the loan market, it has to rely on a combination of a contributed model, a self-registration model, and a proactive model where we're actively going out and looking for events or actions that have happened on those entities.

So it's a combination of all those things which will make a successful and robust set of information that can be relied on within the financial markets, but ultimately the validation of that information, the confirmation of the legal entity named the jurisdiction has to come from source documents to what Scott was saying. And the utility itself is going to have to be responsible for that to ensure the integrity of that data.

MR. TAYLOR: Before we move further down the question list, there is a question on here that I would sort of like to get an answer to. I was thinking how to put it. This used to come up in school elections for student government, if you remember. I should say, in terms of this question, it is perfectly permissible to vote for yourself, but the question is are there existing candidates for this role and who are they? And I guess I should flush that out a bit by saying, if you look at the proposed role, it is assuming that at least as a first step we want a UCI for swap counterparties. That's in a sense a finite universe. It's not yet the entire financial sector. Although we want something that can broaden out to the whole financial sector, the immediate goal is an identifier for swap counterparties, and the rule contemplates we would like to have that in place by the time that swap data reporting begins.

With that in mind, are there existing candidates to play this utility registration authority role and who are they?

MR. JANSSENS: Yes. We are a candidate. So I vote for myself, but not on our own. I mean, we can certainly be the registration authority because we are playing that role already, but we also want to work in collaboration. As Francis said before, the characteristics that are out there for the registration authority that are neutral, that are governed by the industry, that are not for profit, we fit those, and we have been working with the DTCC, who also is utility to see how we could corporate and come to a common solution. So, yes, the answer is --

MR. JORDAN: I will put on my DTCC hat and vote for Avox so I don't have to vote for myself.

No. We do think that Avox has some core capabilities here. Avox today has about 800,000 legal entities in its database, which it has scrubbed on behalf of its commercial clients, and we believe that the swap data repository is about a universe of about 40,000 legal entities. We don't know the overlap of how many of the counterparties or parties in those repositories are part of the current database, but we would imagine there's a large overlap so that we could utilize what we already have to get this going very quickly.

We also believe, when it goes back to governance, that, again, the cost-based utility governed by its participants who are largely the financial firms that we're talking about as being the SIFIs and the other participants to the markets really fit well.

When it comes to a registration authority, we have been talking with all of them potentially, and we think there is pros and cons. As Paul just mentioned, we've had some extended conversations with SWIFT as well.

MR. PREISS: I'm very grateful to my two colleagues to my left for jumping on this question first and setting the tone. I'm not going to specifically vote for myself or my institution, but it has seemed to us, you know, similar to my opening comments, about existing international standard framework.

There is an organization, a Belgium corporation, known as ANNA, the Association of National Numbering Agencies. It was created in 1991 with 22 founding members but today represents over 200 countries in terms of issuer and instrument unique identification. The membership is more than 100 countries but, more importantly, those members are truly international in nature. These are international exchanges, securities, depositories, and some vendor participation as well depending on the market. So this is truly a global approach with an existing infrastructure and a very, very large database of issuers and guarantors already.

There has been talk in recent months about expanding what is known as the IGI, the issuer and guarantor identifier, which is a draft ISO standard, to expand that to cover counterparties, and a lot of the major market participants within ANNA, you know, think that's a very viable model. And CUISP is just one of those 100 plus members of ANNA, but we do think that's one viable model that should be examined.

MR. MARNEY: As a not for profit endeavor, I think I vote for my colleague from Bloomberg. Now on a serious note -- but I do really vote for George. Can we strike that from the record?

MR. HARRINGTON: I think it's on.

MR. MARNEY: We do have something like Thomson Reuters or any of the other vendors I think have quite a lot of capability to bring to bear for this, but clearly there would be considerations for how and why and what and so forth; but it's what we do.

MR. HARRINGTON: So I guess I need to comment now. Obviously Bloomberg does play a role in this space, and I think we've been very public with our Beason Strategy as far as publically disclosing, you know, our identifiers for use of market participants.

At the end of the day, I know that the regulators try and avoid picking winners for obvious reasons, but I do think that this is a space where -- and I want to credit the CFTC for taking this up, taking this particular issue up because it's a bold move because it really is going to be the first step in not just U.S. regulatory policy but international regulatory policy as far as, you know, the move towards a centralized identifier, which will, you know, really affect the entire global system.

And also I want to add one more point, which is we need to make sure that we're also thinking about not just identifiers from a legal counterparty standpoint but also from a trade counterparty standpoint because there are two different components of that as far as the counterparties who actually execute the trade and the actual legal counterparts that underlie that trade. Therefore, that needs to be brought in as well.

You know, from an overall perspective, I think there is certainly, you know, a space for, you know, a provider, a not for profit provider to put something into the market that all counterparties can use. And we're all going to have mapping tables at the end of the day that will identify our own customer relationships, but I really think it will increase the efficiency of the market and, you know, lead to overall more effectiveness of the proposed legislation.

MR. CHIDSEY: So just to throw our hat in the ring and make sure people are aware, Markit has implemented a somewhat similar system for the loan market where we've rolled out market entity identifiers as part of the automation efforts that are happening today within the primary and secondary loan market to automate the processing or settlement processing of trades happening in that market. And we've identified over the past 18 months 30,000 entities ranging from borrowers, administrative agents, fund managers to the fund themselves. So that identifier, although it doesn't meet the standard but the underlying process in concept could certainly be applied more broadly to the swap counterparties and the model that we've rolled out is really an open access model where those identifiers can be used broadly by market participants for the purpose of facilitating automation of the settlement processing in that market.

MS. LEONOVA: Can I go back to George's comment? Let's define terms. So I assume we are talking about LEI as a legal entity that is incorporated and registered as part of a corporate structure. That's where we are right now. If we are going to execution trade branch, whatever level, it doesn't mean it has to have been incorporated in the system from the beginning or it is one of the expendable functions of LEI can be taken care of later?

MR. HARRINGTON: That's a great question. It almost opens up a broader question in this new, you know, swap world that we're moving towards. You know, there are a number of identifiers where you're going to want to have some sort of identification.

For example, for our swap execution facility that we're building and listening to the regulators, there is relationships that we need to understand with the central counterparties. So that's sort of like the first step as far as, you know, where is this trade going to clear. Therefore, that's a level of identification as far as who is using the system from an acuity taker standpoint. Who is their DCM, how their accessing, and then obviously what is the actual CCP? So there is a string of identification there. There is a string of identification as far as the actual executor as far as who is actually seeking liquidity, which is often times an entirely different level where an advisor is executing on a group of legal counterparties.

So I think that there are levels of identification. I don't think we can finish this job and say, okay, you know, one, two, three, four is this firm, and, therefore, we're done. There really is a string of identification that needs to be done.

So the complexity of this effort is very high, you know, and I think that around the table we all have experience, you know, in providing levels of that. I think to push this off on a regulator and say, you know, come back to us and give us an answer is not fair. I do think that this kind of collaboration around the table is the only way that we're going to come up with a successful strategy.

MR. MARNEY: So I don't think you can stop at just a legal entity identifier or just legal entities. In managing a counterparty database you need to get down to subsidiaries, branches, divisions, affiliates, all that stuff, and that gets -- you know, I'm getting some nods around the table -- that gets very, very messy and complicated; but it's essential if it's going to work.

MR. GROSS: Francis Gross, just short remark. I think that we are trying to tackle a problem that we have patiently been building over the last 30, 40 years of globalization and IT intensification. So we might as well sort it in stages over the next few years, learning along the way. Let's be patient but start with things we can do now.

MR. JORDAN: I think there's a phase implementation that we have to look at here, and I agree with Francis. And I think there's really two distinct conversations that I see here and the first panel started to get in. What is the core information that is required to identify a legal entity? And I would even add to that, that would be publically available or could be validated from publically available sources. And the core of the utility that we're talking about to me is narrowing defined that way, at least for the first phase, but there's a whole series of information after that, some of which was just discussed. We also have to talk about hierarchies of information and how you create hierarchies, et cetera.

Once you open it up, the complexity becomes much more difficult, number one. The costs go up. Because a lot of this information is not based upon publically available sources, the ability to validate this becomes not only more difficult, but the reliability may go down as to accuracy.

And I think while all of these components are over time important, I think this is a question about if we can establish a core set of publically available information on which all vendors, users, et cetera can build on and start building these other types of functions, that's the right way to start.

A facility could certainly collection information and make it available, and whether that's available publically or not publically is going to be determined by regulators and by the industry themselves. But I do think this is case where if we can walk before we run and get a core set of information that the whole industry can use in the appropriate ways, that is the right way to approach this.

MS. LEONOVA: Just to make sure I understand to you correctly, so you are saying that (inaudible) or starting from LEI and going down is technological feasible way to do it?

MR. MARNEY: Absolutely. Definitely feasible, but it's a matter of having the extensibility within the system, the ability to handle it and adapt to it and take it on. But it's true for any database that you're building, certainly for a counterparty database. No one has got one that's absolutely completely. They're always constantly building.

MR. JANSSENS: Maybe one comment, I would say it's bottom up because let's first have the first building block stable, and there we can build upon. And the base has to be solid, and then we can start to add to it and build stages upon it in phases with all the expertise, which is in the market, which is around the table today. We can work and come up to solutions easily, but the first element has to be clear from the start.

MR. HARRINGTON: I agree with you, Paul. I think that if you look at where the market is today, it is absolutely bottom up. So obviously, Ronald with DTCC, you know, that is the bottom, right. So in other words, that is just the pure counterparties who face one another. They are identified against one another.

It works, obviously, very well globally, but now we really need to start from that building block and start moving up the chain. You know, obviously, if you look at the goal of a swap data repository where you have reporting and all those things around that, we're very much at the bottom, and there's, you know, a succession that needs to be built up from there.

MR. JORDAN: So I just want to chime in and agree that the LEI is a logical starting place, but now I'm confused whether that's top down or bottom up. I'll call that sideways.

But I do want to agree with some earlier comments made by Ed. I think there's a tendency in the industry to underestimate the amount of not only sustained investment but heavy lifting that goes into maintaining that database overtime, and that should be repeated at every possible moment.

I would also say there are some conflicts in the various proposals out there speaking about legal entity identifiers, and so simultaneously I hear phrases thrown around like utility, and cost recovery, and entirely free, and then just now I heard about hierarchies. And anyone that's been engaged in the business of building hierarchies and who owns whom and to what percentage, and I'm sure most of my colleagues have been in that business and still are, that's not something that's done cheaply, especially if you need something that's done particularly well.

MR. TAYLOR: We've done these questions a bit out of order but that always happens, and it's perfectly all right.

You all have emphasized that quality assurance is a key to making this work. Let's talk a bit in detail, if we can, about what quality assurance purposes are going to be needed to be used by the utility registration authority, whoever it is, and what data is going to be needed to ensure that we have a trusted auditable method of verifying identities.

MR. CHIDSEY: And we've touched on some of this but, again, it comes back to robust operational process. You know, as new requests come in, however, they come in, the initial step is to make sure that the entity doesn't exist and that you're not creating any duplication in the system.

And then importantly is ensuring that the scrubbing that takes place and access to the source documentation, review of the source documentation has to be from whatever the accepted sources are in a particular jurisdiction or, you know, what is agreed ultimately by some sort of a governance committee. But it really comes back to, you know, the source documentation and ensuring that a consistent process is followed before the entity is ultimately committed to the database or at least flagged in some way as validated.

And that speaks to a timeliness element, which we haven't addressed, but around the service levels that will need to be agreed. And a request comes in; there's an amount of verification that needs to happen before you would consider it validated and really want to use it in earnest throughout the financial system. So that's something we'll need to consider is, you know, what is that stage process for an entity to go through so that it gets into the system and people can begin using it; but at some point it becomes validated based on source documentation that's been reviewed.

MR. MARNEY: So I would entirely agree with that. I think the entire process from end to end, all from the initial business analysis, and the rules, and what's acceptable sources that can be used, how it gets populated, how you make editorial decisions around that, through to inline quality control, quality assurance at the end, independent auditing, secondary sources to look at, multi- sourcing content, especially something like corporate actions that go back to something we referenced before. Everybody has to have multiple sources for corporate actions. No one has got it complete.

And then as Ed just mentioned, having the transparency to be able to go back to source document and have that available to end users so that they can validate themselves I think is very important. Everybody likes to be able to get back to the registration documents or whatever it might be that was determined, and having that available in the system I think is very key.

MS. LEONOVA: Since you mentioned primary source documents and registration documents, what is currently being used to verify the entity or organization you're interested in, in the organizations right now?

MR. PREISS: It sort of dovetails with my comments. Beyond my colleagues' initial comments, there's a multitude of official legal documents that are used broadly today, tax filings, financial statements, clearly in the public markets, prospectuses, but there's also an element of timing. When is that information available and to whom? What's the earliest possible view of the truth that we can, as an industry, coalesce around.

And I would add that there needs to be a greater understanding of the global rule set. So in certain jurisdictions perhaps tax documents are not readily available on public and/or private institutions. The same holds true for prospectuses, and so I agree with my colleague, Peter, I believe made the statement earlier. It's this type of forum, this collaborative spirit that's really going to bring these issues to the surface, and so I applaud CFTC for bringing us together.

MR. JORDAN: In each jurisdiction there are also some authorities, which in the United States is usually the secretaries of each state, where you're required to register. In the United Kingdom it's something called the Company's House, et cetera. But, you know, we caution there because there are update requirements in each one of those jurisdictions which may not meet the requirements of a database. For instance, Company's House I think you have to publish once every six months, so information can be outdated by six months.

So I do think, you know, beside the challenge capability that we talked about, and the self-validation, and the corporate action feed reading, and even periodic scrubbing of information against these sources, I think there's a few other things. Each jurisdiction there is, we'll call it the meta-data layer here, where there is a series of documents and a way in each jurisdiction that you can go and validate those. We have developed, over the period of the last 10 years, a very elaborate meta-data layer on a country by country basis.

It's also against publically available sources, and that needs to be transparent. That's the other thing. The database needs to articulate where the information is coming from and how it was derived so that any user of the database can see the sources, and we think those are some of the ways that you ensure the quality.

MR. HARRINGTON: I would sort of credit some of the work that Ed's firm Markit has done in the space as far as looking at the credit default market where you have obviously defaulting events. You have a process of sort of a lead up to the actual auction. Then you actually have the auction settlement. I think that, that type of format of disclosure is something that can be looked at as a potential model.

Now obviously we're talking about, you know, the actual. That's sort of a small window into a much larger world when you're talking about the legal entities. So obviously there's a lot more information that would go through there, but, you know, if we could move that type of a model, you know, into the public forum with some sort of regulatory oversight, I think that would benefit all market participants.

MS. LEONOVA: Ola, I feel like you're left out. Do you want to say something?

MR. PERSSON: No. I mean, certainly the problems we face just maintaining our very limited universe is echoed, and this is going to be plentiful. I mean, one thing that comes to data maintenance that I think is regulated we want to consider is how do you ensure a proper audit trail so you for regulatory purposes can go back on an audit trail.

We know this universe moves very quickly over time. For us, it is obviously a key component. How do you ensure that you can go back and look at events that have taken place over time and then link them together? That is a key component of a regulator.

MR. TAYLOR: A couple of you touched on a question we were going to do a little later, but let me ask it now. What turnaround time frame is needed for assignment of a UCI to an entity that seems one?

MR. JANSSENS: Well, in the turnaround time there is -- first of all, we need to make sure that the data has been vetted and is of quality. So I, again, think that's more important than the time. But then the processes that need to be in place can probably be in phases as well, that the data is made available in less than 24 hours but validated in maybe 24 hours as well, depending on the jurisdiction, if the public sources are available. It can be done in 24 hours. If not, they should be marked as not validated yet and distributed because if an entity needs a code in order to trade or to enter into a transaction with a party, you cannot hold it from doing a transaction because a code has not yet been identified.

MR. CHIDSEY: The only comment I guess to add to that would be that, you know, we're talking about identifying parties to financial transactions. So in order for that financial transaction to happen between two institutions, there normally is, you know, some sort know your client and upfront due diligence that happens between those two counterparties.

So it speaks to at what point do you insert the creation of the legal entity into the overall financial process. And, you know, the further upstream that you go in interacting with market participants and, again, coming back to some sort of self-registration to alert the authority that a new entity needs to be created will be critical because, you know, I think the timeliness, once the request hits, you know, ideally it would have to be created in the same day.

MR. MARNEY: So I think -- I'm sorry, George.

MR. HARRINGTON: Go ahead.

MR. MARNEY: I think it depends on the use case and what you're trying to solve for. So on the creation, is it to enable workflow, or is it for reporting purposes? I think that gives you very different answers. And then for the utility or the reference data that we're talking about, I think that's also a very different thing where there could be timeliness requirements for keeping it up to date maybe different than timeliness requirements for the availability of the service. Because if you want to look to see if an entity already exists, you have to have a live credible service that's available all the time. If a new entity is going to be created and it's for reporting purposes, then maybe the timeliness requirement is a lot different. So I think it really depends upon the use case that you're looking at.

MR. TAYLOR: We are -- go ahead.

MR. GROSS: A very brief one on the use cases. I think that if we want to have an identifier that's accepted everywhere, we should create an identifier that's really useful for everyone and that ultimately perhaps after a longer phase will be used also for all business processes, therefore, the registration and the utility too. It should serve the fastest needs of all the using business processes.

MR. TAYLOR: We are actually out of time, even though we had 15 extra minutes. I'm pleased that this topic was so interesting. There are a couple questions I hoped to get to that we just didn't, which were to talk in more detail about how and by whom the system should be governed and what level of fees are sufficient to make it work. If any of you have thoughts about that and would like to send us them in writing, we'd be happy to put them in the comment file as well, but I don't --

MR. TAYLOR: So, if people on Panel 3 could come up to the table. Bring your name tent. Start filling from down by us if you will, but you're going to need all of both sides, I think, because this is a large panel.

(Pause)

MR. TAYLOR: All right, we are back. This is Panel 3 of the roundtable, Implementation Considerations Concerning Unique Counterparty Identifiers.

I think the first two panels thought this panel was the one that was really on the hot seat. We will see. And I think maybe the participants did, too, because we had more requests to be on this panel than maybe any of the others.

So, let's start with the first question we had posed, which is: What are the technical challenges for timely implementation of a UCI?

Anybody want to go first?

MR. PUSKULDJIAN: I guess I'll start. I'm Paul Puskuldjian from Citi. I've been involved in infrastructure operations in the financial services industry for over 20 years, so I've seen many identifiers created whether it be by an industry participant, a vendor, an industry utility -- many different identifiers created. We view this certainly as something that is very much needed in the financial services industry and, quite frankly, I think a really good idea.

It should be noted, though, when you think about the technical considerations that most of the financial services firms have a lot of technology that has adopted to all of these other identifiers in the past, and, you know, to bring that all together and create some harmony across all of those internal applications is going to be a huge mapping task.

But that being said, I think it's certainly a good idea. We certainly support the fact that there be one identifier globally, if possible, and that if that identifier could be developed by an industry utility, that would make much more sense than having it done by a vendor or a for-profit institution.

MR. GRODY: Yes, my name is Allan Grody. I'm President of Financial InterGroup Holdings. We basically develop joint ventures in the financial services industry. And my partner is, in this joint venture, a GS1, who if you were here in the earlier panel you heard -- Mr. Traub -- describe the GS1.

I'm here both in representing my company and representing that joint venture. We call it the Global Financial Services Data and Standards Alliance. And in the last month we have opened up what was private deliberations among 16 global financial institutions and global standard setting bodies and a few other interested parties to broad discussion across the entire globe. We invited 500 people of which 100 were on the call, and then we had another call in inviting that subsegment to our discussions.

Basically I'm here to tell you that there is a global numbering system that exists in the world that is used by companies. It's called the GS1 system of standards. It's basically developed for the trade supply chain; and the members of that organization, 1.5 million who are basically collected around 108 registration authorities, would like to take the same methodology and offer it to the financial industry in cooperation with the folks here today and the people around our table so that we can begin to quickly identify all the legal entities that they have already identified and the others that need to be identified.

The identification systems endured for 40 years. Its manifestation for most of you is in the 40 million product codes that you see on commercial products -- basically, the bar code. In that bar code is unique, universal, and unambiguous numbers. Those numbers represent the companies, the locations, transportation intermediaries, and, obviously, products.

We think the implementation could be accelerated if we simply look at an existing system that basically came about not because of regulatory compulsion but because there was a business need 40 years ago. The most interesting thing about the solution is that none of the commercial interests then nor now in the trade supply chain were disenfranchised, and none of the commercial interests and business users of the existing systems would be disenfranchised. We're basically presenting a global mapping system that everyone can use and a universal numbering system.

Thank you.

MS. GOLDMAN: I'd like to introduce myself, Melissa Goldman from Goldman Sachs, and also I'd like to thank you for inviting us to participate at the panel.

I'd also like to reiterate the point in terms of being supportive of a single UCI and encourage the implementation of that across the markets, across the globe. We estimate that there are approximately 40,000 entities participating in the OTC markets and that the complexity around a rollout of that would need strong support from the regulators in a unified way. We believe that the firms, including the broker-dealers, would need to engage in what would be a complex mapping exercise, as referenced earlier, and that the challenges around being able to do that is very much dependent on the complexity of the implementation within the firms impacted.

And we also would just like to note that we believe that the identification of a registrar should involve an open call to the market where an RFI can be put forth and an evaluation of the response to that RFI should be evaluated by the marketplace.

MR. MAGNUS: Hello. My name is Arthur Magnus, and I'm with JPMorgan Chase, and I also would like to thank you for the opportunity to speak here today.

Like my colleagues, we strongly support the creation of a legal entity identifier within the financial services industry. One of the things that I think we need to be very clear on, though, is exactly what is the purpose -- and we touched on it in the last panel slightly, but the question is what are we trying to identify, and what are the risks we're trying to manage?

If we're looking at the type of reporting I understand if there's marketing manipulation, which is one of the things this Commission is supposed to be looking at, then you need to understand who are the counterparties executing the trade. If you're looking at credit and understanding where there's concentration of risk, you need to understand who the beneficial owners are. The legal counterparty to a trade is frequently a combination of the two of those. And that is not a legal entity, by the way; some people call them an account.

So, we need to understand what we are identifying so we can understand the universe of what we are trying to do. I do believe that the technical challenges are we're going to have to get in a room with the supervisors, the regulators, the financial industry, and the vendors; understand what we are trying to identify; and then we can come up together with a way of solving this problem. This problem is one that we've been talking about in the industry for a while. We have multiple solutions out there. And it's not something that's going to be easily solved through regulation but through working together and understanding how corporate actions and other things will affect those identifiers over the life of transactions that are going to be in the data repositories.

MR. SULLIVAN: This is Todd Sullivan from Morgan Stanley. I also thank you --

MR. TAYLOR: Excuse me one second. It'll help if people push again to turn their mike off when they're done. I'll try to do it, too.

MR. SULLIVAN: Thank you for the opportunity to speak today. Like, all of my colleagues here, we strongly support the use of a unique kind of party identifier. Specifically, the technical challenges raised by this issue -- I'll make two comments. I'm sure there will be additional that I'll no doubt agree with, but first and foremost is a definition of what is a legal entity, because I think there certainly is an acute need under the proposed rules to talk about counterparties to a swaps transaction. However, without understanding or at least taking into account other uses for LEI, whether it be under OFR or other systemic risk supervision analogies or, frankly, things outside of the OTC derivatives market. So, certainly the requirement to make filings as public corporations resides at different levels within the corporate structure, and those entities, when they make those filings, are identified. To the extent we can anticipate or at least plan for a contingency where there might be unique levels of reporting requirements or unique levels of relationship between those entities, the more we think about that before we implement a process, the easier it is to make that extendable to cover those same requirements.

The second is, following on from the previous panels that discussed the extension of current existing platforms and potentially extending the use of one of those current identification systems to cover this requirement, while the frameworks they've used certainly should be considered as we build something, the challenge for us as users -- and most of us sitting around this table are the parties responsible for reporting -- their numbering systems/identification systems are fully embedded in the hundreds or thousands of systems and processes across the industry already.

You know, simply examples of a couple things that have come up: DTCC participant IDs in the OTC derivatives market-read identification numbers under the market service are so fully embedded in other processes that to change the use there to extend it to cover UCI runs the risk of significantly affecting the use for other purposes. So, I think we should certainly look at the frameworks they've used to build the systems as certainly a starting point, but simply taking one of those and extending it and saying it now qualifies as a UCI runs a significant knock-on effect risk to the other uses of those numbers.

MR. TUBRIDY: Hi. My name is Ray Tubridy. I'm with State Street, but today I'm here representing the FIA. We kind of came into this discussion a little bit late, so I apologize if I misstate or mischaracterize anything.

I'm part of a subcommittee for the OCR rules that were published by the CFTC, and we spent some time looking at the requirements and comparing them to the existing requirements that exist in futures. And within the futures industry, we do various levels of reporting, and we use unique identifiers today, mainly three: One, the executor ID, the one who places the order to the market; the controller, the one who makes the trading decisions; and the beneficial owner.

And so, you know, I echo Arthur and Todd's comments about we really need to define what this counterparty definition is, and the recommendations coming out of the subcommittee are that we try to leverage existing data where we can, minimize the amount of development in systems impacted, but, most importantly, be consistent across the products.

And now with the swap market come in to clearing, we have markets that are already clearing and that are struggling with some of the same requirements, and so we want to make sure that we are looking across these products and developing these new reporting requirements so that they will be useful across products when that time arises. So, consistency, keeping in mind straight-through processing, leveraging systems and technology where we can, and reasonable data requirements.

And so, you know, we have a lot of work to do between now and July, and we need to be reasonable about what we're asking for and knowing that maybe we can't get everything we want in by July but having a plan for where we're going to get that data.

MR. McCLYMONT: Hi. I'm Stuart McClymont with Deutsche Bank. Again, thank you for also to participate in this roundtable.

I certainly think that we definitely

agree with the mutual standards. I think we need to be careful, though, in terms of really understanding the process, the functions within the process, and making sure that we don't try and retrofit existing solutions into that process. I think we need a period of design amongst the industry both in terms of vendor supplies, users using our prior experiences getting industry together to work hard. Whatever we need. What should it look like? What are the current incumbents, and how do they need to be modified, and relegating that design, that understanding out first to redraw through what are the requirements of it. Let's get more clarity around why do we need these standard identifiers, and what is the report of (inaudible) to be able to support those standard identifiers and as a group of institutions, as users, as vendors agree that design, that infrastructure.

I think what we've done in the past is we kind of jumped into very specific areas like resembled that registration authority or we jumped into the distribution mechanism or we jumped into the cleansing and process. I think we understand the whole request for identifier, the generation, the storage, the distribution, and the consumption. Restart thinking about (inaudible) a provider prospectus -- who's the provider of the service and what is the service they're providing and how do they fit within other providers of the end-to-end service. And then ultimately what are the consumers, what are they consuming, why are they consuming, and what they need to then to provide that downstream, and again consumers. I think without that we will probably go down certain routes, we will probably spend a little money, and I think, given the time frames that we've got to try and achieve some of this, we need to get to the table very fast as a group to start designing what the solution looks like and working out where the deltas are today.

MR. TAYLOR: That's -- sorry.

MS. YEE: Hi. My name is Lindsay Yee. I'm from the Bank of New York Mellon, and I actually work on the Derivatives Trading Desk itself where I manage the Trade Capture Support Group, and I support the traders' products and implementations.

I also agree that the unique counterparty identifier should be agreed upon. We need to figure out, first of all, what is the universal standard, agree to it, and then publish it.

Other things that we do need to also think about are the operational deployment within our existing systems, interface modification between our company systems and anything that we can leverage operationally within the organization, what maintenance needs to be maintained through the internal systems, and the upkeep -- who's going to be responsible for that. We're going to need extra funds for it and resources with people as well.

MR. TAYLOR: Anyone else want to weight in on technical challenges for implementing the UCI? If not, we had a minute ago --

MR. SULLIVAN: One more comment.

MR. TAYLOR: Sure.

MR. SULLIVAN: It's just that there was discussion before about the timeliness and how fast we get this back. The technical limitation I think should be looked at in two different ways. One is ongoing once it's running -- what is the service level agreement expected by the users of the service? The other one is obviously the day you turn this on, right? -- how fast do we expect to get data back? -- because, I think, you know, a lot of the debate about a contributed versus a self-registration model raises issues. If it's contributed and you have the top 20 banks contributing all the data at once, you're likely to have at least 15 repeats of everything, all the major participants in these markets. So, you know, thinking about how we go through that process and how long it takes to get through that initial scrub. And then there's an ongoing new entrance and maintenance exercise, which I would expect to be looked at in different timelines.

MR. MAGNUS: I would also suggest that the creation of data might take -- you might have more time to create something once it's up and running because of the time it takes to do all the KYC as was mentioned earlier versus some change to the data, which might need to be made rather quickly if we want to be able to use the data in the repositories in a timely manner.

MR. TAYLOR: Anyone else on technical issues? Well, let's move to -- it's a big question: How can industry consensus on a UCI be achieved? I mean we've heard from all three panels, I think, this morning a general agreement that we need a UCI. It's heartening to hear, you know, volunteers, people voting for themselves as being the utility or the registration authority. Obviously, there's a question about how do we pick a solution, and I think it's clear from what we said in the proposed rule the Commission, at any rate, prefers not to pick, that the industry would come together. You all are the ones who are going to pay for it. You all are the ones who are going to use it. You are all the ones who have the technical expertise in it. So, the question is how can an industry consensus be achieved. And maybe let's start with -- we have to break that into its components -- what institutions need to be involved in that process?

MR. GRODY: I'd like to discuss that.

MR. TAYLOR: Go ahead.

MR. GRODY: First of all, let me just -- besides announcing my affiliation and my company, I would like to give you a little background, because I've lived through six decades of the financial services industry, and I've had 50 years on Wall Street, and people say I can't be that old but that was my first job out of school, working in a luncheonette on Wall Street, so I like to date my experience from that point. But I've had 45 years of business experience over six decades.

I was there when CUSIP was thought of, and when DTCC was first invented I was there at a bank when we installed SWIFT. And I've been through a number of generations of this. In 1995, I called the first cross-industry standards conference where we had the world standards organizations around our table to discuss the problems. And the chairman of the standards, a board that was called at that time, was the chairman of the World Federation of Exchanges -- then it was called something else -- and he had worked for three years to try and build consensus. And he concluded that the standards organizations were in competitive businesses and they couldn't be brought together as a group.

What's different today is very simple. Unlike all of these other attempts, we have regulatory compulsion. And you are the most important part of getting us around a table to solve this problem. Every one has a vested interest, and they should. They have done a Herculean job in supporting the industry. What's different today in our world, in our global financial services data and standards alliances, we brought the corporate issuers to the table and their auditors, people who heretofore have never been involved in the thought process of solving this problem, people who we want to give numbers to: General Motors, IBM, Kroger, Walmart, all right? They have given themselves numbers in their other business, producing their commercial trade products. They are now at our table in the form of GS1 saying we believe straightening out the financial supply chain is important. They never knew what happened after the board met and approved a corporate event. They never understood what the investment bankers, the accountants, the lawyers were doing with those pieces of paper.

We have a role for XBRL in translating the success of financial statements translated into XBRL. We all understand how successful that project is. We want to move that project forward to get the data from the prospectuses, the memorandum, the ISD master agreements. Even the financial announcements, the corporate events, from paper documents into XBRL templates so we could provide the data for the extensions of these uniform codes that we wish to provide to the financial industry and to databases and do it in a straight-through processing way that we've always wanted and never included the people who were at the top of the financial supply chain.

MR. SULLIVAN: I might suggest perhaps a different way of saying it and probably a very similar message, but we have very active industry groups formed across the financial service industry, a number of which you have already met with numerous times representing both buy-side and sell-side institutions. They have to be at the table.

You, your colleagues at the SEC, your colleagues at Treasury, your colleagues around the world, the FSA, the European regulators en masse, Asia-Pacific regulators need to be at the table, and I think obviously the service providers who are vying to play different roles within this process need to be there. And those are the three major constituents that need to be represented -- the participants in the market, the regulators across that market, and the people providing the services. The ideas are going to come collectively probably from all three, but the service providers are going to be there as a sounding board for how to come up with a solution.

The participants in the market are going to know how they're going to implement that, and the regulators play the most key role in ensuring that we have a single, global, consistent set of rules that we're trying to comply with. Having solutions that are different in North America from what they are in Europe or what they are in Asia - or that diverge over time will make this unimplementable. But the three groups together can come up with the mandate -- I think Stuart was specifically addressing that -- defining what is the problem set that we're trying to solve for. And then we can derive consensus from that group.

And then, you know, I think Allan's absolutely correct, the world is different than it was 40 years ago. There is no passive sitting by and just let things happen. Those options have been taken off the table. So, I think that group sounds daunting. It's huge. But, frankly, we've proven over the last five years, certainly in specific asset classes we've done this. You know, that is the only model that's going to make an effective answer.

MR. TAYLOR: Let me ask a quick follow-up for that, because I thought I heard this. From both of you are saying, you're talking about getting those three classifications of stakeholders, shall we call them, around the table. Do you think there really needs to be a table? Does someone need to convene a giant meeting of all those folks? Or if it's not literally around a table, how do you do it?

MR. GRODY: Well, there's a model in the world today that did just that. That's the Basel Committee under the G20. And they created a capital standard for the world. It's modified. It's Basel III now. But it's the best thing we have, and they recognized of course that the weakest link will bring down the whole system. Systemic risk is what we're ultimately trying to resolve. So, there is a table there, a bully pulpit, all right? And we're suggesting that the Financial Stability Board, while they have a framework concept around systemic risk, also create the framework concept around a global data standard and then push it through to the regulators across the world so that we can have a table up there that will watch over this data standard.

MR. PUSKULDJIAN: You know, just listening to the few panels that have talked about this, the fact that this hasn't been done before, you know, doesn't mean that it's not a good idea. Every single person that sat here said it's a good idea. The problem that I think we've had is that it there hasn't been some consensus -- global consensus. So, I think working the regulators, setting the framework, working with the industry participants can help us set that framework, and the industry participants working through what it is that the regulators actually want to be able to see I think will come up with a strong solution.

But I will say that it definitely has to be a global solution that all the regulators are supportive of and agreed to.

MR. McCLYMONT: Paul, I would just echo that. I think we've been tremendously successful in the last five years as an industry to deliver solutions to improve our operation efficiency. Our approaches to our control reduce the risk in the market, and that's because we've had a group -- the OTC Derivatives Regulators Forum -- where's we've got a number of regulators around the world coming together with the community (inaudible) buy and sell sides to firstly set out what people's requirements are, what their objectives are, and there's some negotiation in that process but we always end up every year -- and we have done (inaudible) of the regulatory commitments letters to agree what those commitments are going to be both from a regulator perspective and also from a delivery perspective and from buy side and sell side. We then work with the vendors to identify solutions to (inaudible) commitments. But throughout we've been very clear what are those commitments, what are the requirements? Do we both agree, and are they going up against what we both want? Yes. Okay. Now, what (inaudible) providers actually deliver a solution within appropriate time frames. So, I think it's that collaboration between regulators globally, the users globally, to identify the "what." Then we work through with the vendors to identify the "how." And then we work through again the time frames built to deliver against it. But I think we need to be very organized, very clear. And again it goes back to my original point. I think if we don't design the "what" as a community, we will end up spinning our wheels and we will try and retrofit infrastructure that exists and is perfectly good, but I think we should learn the lessons that we've experienced over the last five years in terms of building out standards around red IDs, around standard calculations, standard documents, how we approached that in the past and how successful we've been by that approach.

MR. MAGNUS: Yeah, I would like to support what Stuart said, because that model has worked incredibly well, and allowed us to bring things to market very quickly. We've made commitments on an annual basis and within a year made significant progress against those.

You know, I was actually involved in the Microform's Basel II program. That took probably 15 years before I even got involved, and it's now many years later and it's still being implemented, though it's not the time frame we're looking for in this particular endeavor. (Laughter) So, you know, I think if we can get around the table with the right subset using one of the industry groups -- and I would recommend to you SIFMA/ISDA to help drive either one of those two forums -- to get around the table and do what Stuart suggested, which is to identify what the objectives are and agree between the regulatory and supervisory community and the players in the market what the objectives are, we can then very quickly engage the vendors and figure out what is the right technical solution to that. And that would be certainly my recommendation for a quick fix -- or, not quick fix but a quick way to a solution.

MR. TAYLOR: You're talking about, you know, once you've got the principles you can look at the vendors and make a decision. One of the questions here is who makes that decision and how does it get made?

MR. MAGNUS: The industry through the IIGC in the past has done this in several different forums, and the process for creating the credit repositories that exist -- the equity repositories, the fixed income -- went through similar processes where the industry picked the vendors to meet the requirements at the cost that they thought was competitive. It was an RFP environment. In some cases they issued an RFI and then an RFP. The community that was ultimately going to pay for it decided which vendor they going to go with, with the help of the supervisors to make sure that all the participants that were bidding on it were actually delivering on what they were looking for.

So, I think you have roles to play for different groups. The regulatory and supervisory community can help make sure that the vendor that is selected meets the requirements, and the people who are going to pay for it, which are the market participants, get to actually pick the vendor and their governance structure's in place that can be used to do that.

And we can also make as part of the requirement that we need that international threshold, because there are things that can be divided up around the world. If you look again, the internet model was a very good model. It isn't consistent across the world. There is one body that issues and maintains sort of consistency but then each nationality in each country does sort of their own thing. And so there are definitely lots of models that can be leveraged, but that would be the way I would recommend to move forward quickly.

MR. GRODY: I would like to engage the

panel here in discussing what is in fact the narrow focus that we are now discussing with regard to a quick solution to an immediate need by one regulator here in the United States versus the broader goals that are articulated by the SEC, the CFTC, and the Office of Financial Research with regard to the U.S. Treasury; and, of course, the signature on what they call the lynchpin report by many organizations in the government as well as FINRA.

It is a vision that is hoped for to be implemented. What we're talking about here today is the same, same-ol', same-ol', the silo solutions to get a relief in a particular jurisdiction, a particular market with particular regulator, when in fact the goals are much broader. And if we don't have a concept, like the internet registry for example, around legal entities that traverse every product within the financial space across the globe, we'll never get the permanent solution or reach the vision that we're looking for.

So, I'm suggesting that we are continuing to respond to the individual regulators for their immediate needs with immediate solution when in fact the vision is much broader and the interest in solving this problem permanently has always basically thwarted us.

MR. MAGNUS: With all due respect, that is not what I suggested. The IIGC is an international body of market participants. They have delivered international solutions in the financial market space, and they have worked with the international regulatory bodies to solve what are problems. While it would be a lovely thing to try and create identifiers that solve absolutely every problem in the financial services space, across every single aspect of financial services, I also believe that you need to walk before you can run and you shouldn't try and boil the ocean. And the space that we're talking about, the OTC derivative market, the global OTC derivative market, is a reasonably good proxy that if we solve it here we will end up with a solution that can probably be used in a much broader concept, because the concept of who you're trading counterparties with, the legal entities I am trading with and the roles that they play in the market, are not inconsistent in other parts of the market.

And if we use the comments that Raymond mentioned earlier about the futures market, those same concepts, by different names, are used in other parts of the market. So, I do think that the solution that I suggested -- and I'll let my colleagues in the other financial institutions -- you know, they can contradict me if they like -- but I do think that will be an approach that would work and we can get a small number of people around the table to actually get to a solution quickly.

MR. SULLIVAN: I certainly would echo a lot of what Arthur just said. I think the key here is not that we're trying to get every possible use ever for some concept called the legal entity and find that solution right now.

But there are certainly a number of legislative mandates already issued, certainly a lot of global discussion currently underway about what the expectation is in other jurisdictions. And we know the vast majority of the participants on that side of the table, and getting them together to at least identify the places where although we don't have the rules written yet or even drafted yet we understand the concepts trying to be solved so that when we do build a solution that very narrowly focuses on solving the CFTC rules for a specific set of instruments in a specific market, it's an extendable solution that will fit the SEC's requirements, the OFR's requirements, FSA's requirements -- because those are being discussed in a collaborative and cooperative framework around the world.

The original question that started this current debate is do they all need to be at the table? I think the short answer is yes, to make sure that we agree high level the "what" and if there are still gaps we at least acknowledge where we've got to build in contingency, because we've yet to define some of the possible uses so we don't build a framework that we end up throwing away two years from now because we finally got to understanding those other needs.

MR. McCLYMONT: I think, just to build on that, I mean what was the statement we said right at the start of today. It was we would like a unique and counterpart ID to be able to deliver effective, efficient transparency from a regulatory reporting perspective in OTC derivatives. That was our immediate open stance. So, if that's our objective, we need to say okay, what is the design? What is the process? What are the solutions to go to immediate objective?

I absolutely agree with Allan. We need to ensure it's not a silo solution. But I think again we've demonstrated in the past that a lot of the ways we've approached the derivatives structure in OTC have actually been (inaudible) cross into other products such as futures and cash equity. And even though they may be the more mature products in terms of mature derivative structure, they've learned a lot of lessons from the build-out in OTC over the last 5, 10, 15 years and are now replicating in those asset classes. So, I think we would be foolish to build an OTC solution, and I don't think we would do that, but I think we just need to be very clear on what's our objective, what's our time frame, what our design would look like, and how we can accommodate that.

MS. GOLDMAN: Just to add on to those points, I would echo, you know, those same sentiments in terms of scope. I also think that the scope applies to not only the coverage but in terms of what data we're collecting and so to the extent that we understand the uses of that data and sort of plan our approach in a way that we collect the most critical information up front, and to some of the points discussed earlier regarding entity hierarchies, that we really identify a scope in the initial rollout that is specific to, you know, core information but we also include major legal ownership in that information in order to accomplish the kind of systemic risk management that we're trying to achieve here.

MR. PUSKULDJIAN: When you think about the identifiers, you know, one of the things that struck me was that the regulators actually use different nomenclature when they refer to them. The OFR uses LEI; you guys use UCI. We should, I think, harmonize that so that we're all using the same nomenclature.

And, you know, I think it's a great thing that the people around the table actually are familiar with the different regulators and what they want to do, and as an industry we don't want to do the small pull times. We don't want to do something for the CFTC, SEC, and OFR. We want to do it one time and be able to service the needs of all the regulators. So, you know, I don't think it's a very silo-based approach at all, and, you know, with the right cooperation of the industry participants and all the regulators who are involved, I think we'll come to a very good solution.

MR. TAYLOR: I should maybe provide a word of explanation on that last point, because I'm the guy who wrote UCI in the rule. (Laughter) We did it on purpose. What we intend agrees exactly with what you say. We said "UCI" rather than "LEI" trying to recognize -- I mean, to me LEI is the term for the broad use of the identifier across the entire financial sector. That goes way beyond identifying swap counterparties. And identifying swap counterparties is sort of the job that was handed to us. We were handed a situation. Somebody said to me in the break, you know, the difference between the situation we all face today and what's existed for the last 40, 60 years when people have been recognizing for a long time that this was maybe useful is that you have regulatory compulsion. I guess we do. And on the schedule, the first thing that comes up is us coming up with an identifier for swap counterparties and swaps under the CFTC's jurisdiction. But it's absolutely not our intent to be a separate silo. We're trying to walk in lockstep with SEC, you know, and to make a UCI, because maybe that's a finite early achievable thing, but to do it in a way that it can become the LEI -- if that makes sense.

MR. GRODY: Well, I can only tell you this. All right, as we have diverse interests around our global financial services data and standards alliance, the table that we would have to draw would be huge, because while these people represent domain knowledge in the over-the-counter derivatives market and in the futures market, there is a huge amount of siloed products, markets, infrastructure entities that support it with its own terminology in its own and within different geographies. It is a huge undertaking. It has defied solution to this point. It only gets more complex. That's why the difference being regulatory compliance to get us to do this. It's not easy. It's not going to be quick. But if we don't come up with a framework, all right, we're going to wind up with siloed implementations against silo regulators, and we're going to have another level of complexity beyond what we already have.

MS. LEONOVA: Okay, can I ground this conversation? So, what is the first step?

MS. GROSS: Could I intervene? Francis Gross, ECB. I think we have two different sets of problems or challenges to overcome. The one is design of a standard, which needs to be done and agreed by the stakeholders. That means industry and the authorities that will use the reporting data. And the second one is to reach international agreement among the lawmakers in the various countries that will mandate that standard. One aspect we have already repeated many times is that we can't boil the ocean and serve all the needs at once, so I think we need to start with something feasible and where the need is immediate and try to design as much as possible upward compatible so that it can solve in service steps the next generation of problems.

Now, under the design of standards, we talk about the very large table. Well, we could use an existing infrastructure. For instance, there is ISO. ISO is an international organization that has a lot of experience in building standards that are accepted by industry worldwide for the most successful ones. There might be other such bodies where industry comes together through these standards. Usually those bodies do not get a lot of attention, because people (inaudible) by firms are not very much empowered to do anything, but perhaps this time the attraction could be larger. So, that could be for the design of standards.

For the adoption of standards and mandating the standards (inaudible) I think we will have two things - one, the powers that be among the countries not come together. Now, I can say from Europe that thee awareness in Europe for this kind of issues is now growing. We are in contact with the Office of Financial Research.

Louis Alexander has visited Europe last week and talked to everyone whom I talk to here in Europe. And therefore we have a process of building a political will that's well on its way.

Now, in the U.S. legislation is in place, and the U.S. is one country. It can go very fast and won't wait. Certainly not. Europe is a little bit more complicated, so what we need is to have as well in the U.S. standards or a set of standards adopted that will be acceptable to all and here if we adopt the solutions that, one, to go through a group like ISO, then it would be acceptable in Europe more easily.

The next stage is to initiate discussions, and here perhaps a forum like G20 could be the one. And also to include in the discussion institutions with a global reach, such as the Bank for International Settlements and the IMF. That could then bring together the countries that want to participate in the first round. And then I count on settlement of development of international pressure and through government and through the industry as well for having further gone to an end, and that way we could have a mechanism that grows in a modular fashion.

MR. TAYLOR: All right, I thank everyone on the panel. This has been very, very useful, and there were some interesting suggestions on how to answer these questions.

So that we don't run out of time, we would like to move to our question-and- answer session, and this is designed to let people who are in the audience ask questions of the panel in a sense over the whole discussion we've had all morning about unique counterparty identifiers. There is a microphone in the aisle over there and a microphone over by the pillar over here so that you can be heard asking a question. Please feel free to chime in.

MS. LEONOVA: Arthur, I know you want to do something.

MR. MAGNUS: Well, while we're waiting to get the microphones, I was just going to answer your question about how you can move very, very quickly.

There is a SIFMA working group that is already set up that is looking at this problem that I believe the CFTC has already met with, and that includes representatives from the industry. The IIGC is ready to get involved also. I think as supervisors you can set a deadline, which I think you actually did in that forum, to come up with a blueprint or straw man for what those objectives are and get them on paper, and then we can move to an RFP-type phase. So, I do think we can move very quickly to get something that is practical in place, and it may change over time but let's get something in place that we can start working with.

MR. TAYLOR: Really quickly, as audience people come up to ask questions let me just ask around the panel, is that SIFMA-led sort of virtual consensus process, if I can call it that, do you all see that as a viable way to run this and is it inclusive enough? Are there others who need to be added into it?

MR. McCLYMONT: I mean, I certainly think in the past using is during CFMA we've very effective at delivering solutions to market. So, I think it's got a history that shows that that consensus collaboration approach between regulator, industry user, and also vendor and solution provider is effective, is the right way to go.

MR. SULLIVAN: Certainly given the changes to the governance model across the creation of the IIGC I think addresses a number of the legacy concerns that have been about the scope of representation. I would say that there is both buy-side and sell-side full-market participation. So, certainly for the industry participants and users of this process, we are well represented. I think ODRF is a great framework to look at for coordinating the regulatory side of the equation. I think both you and the SEC have been added to that group, so, you know, that's certainly the right foundation, and it needs to be expanded to address this more globally. Certainly we'd be open to that. But I think there is both a global industry and global regulatory forum now in place. So, that certainly gets the two mainstream holders together.

MR. TAYLOR: Are there questions from anyone listening in the audience for the panel?

There's always this moment of dead silence. And unfortunately I'm not a law professor. I can't call on you guys by name. But I'm sure someone has a question.

MS. GOLDMAN: No, I was just going to add to the question about -- to the message, and that we would agree as well that SIFMA has been a very productive way to sort of identify the items and propose some solutions around that, and so it's been a very productive forum.

MR. McCLYMONT: So, just also I think -- again I've said it a couple times now -- I think clearly defining the objectives and the requirements with the various stakeholders is a must, because we will do what we always do as I said a couple of times. We'll spin our wheels and go off in different directions. So, I think that fall that we had with, for example, the ODRF, we managed to discuss with them what their thoughts and what their requirements are to actually solidify (inaudible) requirements, because often people think they know what they want, but when you actually discuss and explain well, how can you get it, it's actually not quite what they wanted. So, I think that open dialog to really clarify and crystallize the objective of the requirements will allow us to move much faster than into a identification or a review of the process or the functions that could deliver that solution and then actually then the vendors and the design of what the solution is itself.

MR. GRODY: I would like to ask the simplest of the questions. Do the auditors of the public companies have a role at the table? And the reason I ask that is because the auditors basically are given the task with the legal entity that we're trying to identify to actually lay out the structures of their hierarchies every quarter and sometimes the bigger companies have permanent staffs to actually resolve the legal structures so they could apply their attestation function and sign off on the materiality of their audits. And we have always considered them in our construct to be important, because they in fact organize themselves around a database of those legal structures -- the big four at least -- and they have shared that knowledge with us, and I pass that on to you to be a consideration.

MR. MAGNUS: I would consider we have to go back to what's Stuart said a moment ago: What is the objective? If it's to identify swap counterparties, which are specific entities and a hierarchy, when the client is a corporate that's fine, but if the client is a fund manager, managing multiple funds, a fund may have multiple fund managers, there are multiple hierarchies, one needs to look at. And so the question goes back to what Stuart said a moment ago: What is the objective? Is our objective to understand counterparty risk? Is it to look at systemic risk? Does it look at market manipulation or look for market manipulation? These are different objectives, and they have different hierarchies. And the financial auditors that you refer to are only looking at the corporate hierarchy, not necessarily all the other hierarchies. So, I think that you need to understand what the problem is and then you can bring the right people to the table to help solve that problem. But you've got to start with what is the problem we're trying to solve?

MR. GRODY: Well, the auditors do audit the investment managers, their structures, and mutual funds, and what they own and don't own in the same way that they audit corporations.

That's number two, we continue to have a dialog about what I consider to be a narrow focus, which of course is the focus of the CFTC but always within the broad framework of the SEC's rulemaking and the OFR's rulemaking and the thought beyond that of a global solution. And so that's why I continue to suggest that the solution we have here has to be framed within the context of the overall rulemaking.

MR. SULLIVAN: I think there is definitely consideration for that and probably hundreds of other uses for this data. The key is identifying the "what," which is the framework for writing a process to identify parties. And I use "parties," not "legal entities" because as Arthur has correctly said, there are multiple ways. A database that creates an identifier for parties, which then can be used as inputs to hierarchies of different uses, whether it's supervisory or accounting validation or, you know, counterparty credit risk management or market risk management. Those are all obvious extensions of this data, but if we think about solving all of those in a single implementation, we're back to boiling the ocean. And the key here is to agree on the "what," which I think we're saying let's not focus solely on the term "UCI" but extend, look at the broader Dodd-Frank legislation and the legislation being discussed in other major jurisdictions and say is there a way to come up with a common identifier for parties that could be utilized to meet the requirements of each of these rules such that don't end up having to build a solution for UCI and a database and a solution in LEI for another database and a solution what the SEC needs and another database -- and that's before we've left the North American post.

So, I think, Allan, your point is valid. I think the key is making sure that we don't try to scope the solution to this project to be so broad that we try to solve every one of those implementations in a single solution.

MR. TAYLOR: I hope it's clear from the proposed rule -- we want the UCI, which is, you know, our sort of narrow mandate, to be designed in a way that it can become the broader LEI and that it can serve all of those regulatory purposes that Arthur was talking about, not just the ones that are the mandate of the CFTC but, for instance, prudential and systemic risk supervision. So, all of those purposes would need to be taken into account, even as we design the first step avoiding boiling the ocean by just the UCI. We want it to be such that it doesn't create what needs to come later -- if that makes sense.

MR. SULLIVAN: I think I agree. I think the issue -- we might spend some time looking at it from both directions -- which is identify the legal entity, define that term, build a decision where UCI could be a special-use case of that data, right? And then other hierarchies are going to use that in other ways. But I think it was clear to me in reading in the proposal that that was the goal, so.

MS. LEONOVA: It looks like everybody is tired and undernourished and needs lunch.

(Recess)

MS. LEONOVA: Now we proceed to Panel 4, Unique Product Identification, UPI, disclaimer. All persons had the passionate desire to switch from Panel 5 to Panel 4 and we are happy to accommodate the switch.

Questions have been distributed prior to that and I guess we need to give a small background to begin with our marvelous rule about what we are taking about. As a concept, we need product identifiers is geared mostly to boards specifying their underling nature of the swap. We tend to think that it's going to be somewhat different from equity credit type instruments and commodity type instruments and we are willing to differentiate those classifications as we feel appropriate, but as we go forward, let's start from the first question. What is the most effective and efficient system for product identification for the purpose of data aggregation keeping in mind those underlying asset class differences?

MR. ARORA: Let me start. I'm Kulbir Arora from Goldman Sachs. First of all, thank you to the Commission for having us here. I think, Irina, you hit the heart of the problem in the sense that if we are not clear about the purposes and the usage of these identifiers, things are going to become very complicated. Aggregation across various dimensions is obviously one of the use cases. I think price transparency is another use case. The CFTC has started a very detailed and prescriptive product topology, attributes such as contract type, subcontract type, asset classes, option types and so on, and I think those are very necessary and critical attributes to distinguish. But I think we need to understand that one of the key features of this marketplace in the last several decades is the very dynamic, evolutionary nature of this market. There is a lot of product innovation that happens.

One of our worries is that if this product topology is over prescriptive and owned as part of the rules, then constantly upgrading it or changing it will be very burdensome and probably would require rules rewriting. I think a better way to own this would be to bring regulators and industry participants to the table under the auspices of organizations such as ISDA, more appropriate here than SIFMA, because that way the maintenance and constant evolution could be part and parcel of -- there are a range of value sets for each of these attributes that a good starting point has already been achieved but the constant evolution that's going to happen is one of the issues.

Irina mentioned the distinction between credit type instruments where some standardization in the marketplace can happen and one could conceive a CUSIP style identifier that references a very standard FpML as an example description, but for the large other part of the market, interest rate products for example where every deal arguably is a product unto itself, I think referencing the product topology in the data requirements is the unique identification part of it. The question here is that when you regulators talk about aggregation, along with dimensions are you intending to aggregate based on the purposes of the rules? And some of the attributes allow for that aggregation to happen across asset classes or underlying assets for example, but I think that clarity is very necessary today. Thank you.

MR. HAASE: I'm Ken Haase and I'm with the NFA, and also we would like to thank the Commission for inviting us here. I really will agree with very much of what you have just said. We do need some definition, but it can't be terribly tight at this point. You have to allow for the future of the unknown and that's always a concern with any type of system data field or anything you're trying to put out. In this area in particular I think it's quite different than futures simply due to the amount of underlyings you could have and some of the very, very unique types of products you could be trying to identify and that may not just fit into a small defined field. This may end up being almost descriptive in some instances.

MR. CUTINHO: This is Sunil from the CME Group or CME Clearinghouse. I don't want to repeat what has been said before but I agree with some and most of the comments made. Over-the-counter derivatives are not as specific or standard as some of the commodity derivatives that are trading on exchanges. But one of the things I'd like to add is it's very important that we understand the need and the aggregation and based on that we could come up with an algorithm. Rather than have an entity designated to create these identifiers, our preference would be to work with industry and come up with an open, transparency algorithm so that these identifiers can be generated in a very deterministic manner.

I did hear the comment of descriptive. We support that idea because unlike the counterparty identifier where you cannot be descriptive to maintain anonymity, here in this case it's a product identifier so that based on its need we presume it's reporting and real-time price dissemination so that descriptive is of the essence here and the more descriptive the better.

MS. DREW: This is Eleanor Drew from Citi. I'm in charge of the Master Data Management Program, both the technology implementation and the operations space. We're very supportive of industry standardization. In my particular role in the firm I've been waiting for this for 10 years because my life is miserable trying to string together all these different identifiers.

One point I wanted to bring up is when you look at security data across cash and derivatives, there is a life cycle associated to it so that when we look at data management on this there is entity, there is issuer, there is product specific data and there are corporations actions. In addition to that, there are hierarchies associated with those domains so that it is very important that we take a step back and model it so that we could fully understand the life cycle of the instruments through the different flows to make sure when we design something we do it once and not continue to go back and back and redesign because we're very -- on our design so that that is one of the points. I very appreciate you inviting us to this panel.

MR. CHIDSEY: Since it seems like we're going around, this is Ed Chidsey from Markit

Group. I think it comes back to what some of the others were saying in terms of what problem are we trying to solve, what use case are we trying to solve, and if it comes as an example of understanding what instrument is referenced for a given price, there are going to be different data fields that are required for a particular instrument or asset class. So if you take credit default swaps as an example, you really need reference entity tier of debt which today is typically derived from the reference obligation, maturity date, clause and currency so that there are five fields that are required to understand what instrument you're reference in a credit default swap transaction that would be attached to a given price and each of those fields could potentially be identified through some sort of an alphanumeric identification scheme. Tying all of those together is something that could be considered, but then when you look at another instrument whether it's interest rate swaps or other derivatives, there are going to be a different set of fields that are required in order to understand that instrument you're describing. So I think it's important to decompose it to a point where you understand the fields that you need to identify, the instrument that you want to describe for a particular purpose and then think about what standards can be applied to each of those fields. Some of those are very common, maturity date, currency, you can have standards for that. Others may be very asset class specific and we'll need to think about what those standards could be.

MR. LITKE: Adam Litke from Bloomberg. I'd like to thank you for having me here and I'd like to echo what everyone else said, so I won't repeat it.

I think from what I've read of the rule, you've talked about using the identifiers to set limits but you're not actually collecting any risk information with that and derivatives aren't really like futures contracts. It is possible using other parts of the rule where you're requiring the confirm data to then go and compute risk information, but since an over-the-counter derivative can have multiple legs and multiple underlyings, I think the purpose in the rule the way it's written now it's a little confusing. I think if we're talking about having enough identifiers so that the Commission and other regulators are able to see the risk of the deal and say there is so much risk in the market to these products, then you're talking about within the context of the confirms having for each field a specified bit of information. In a swap it's not even obvious. You might say I can do a plain vanilla interest rate swap. It's cash. There's cash and there's the fixing rate which may be LIBOR. Do I identify that as a single asset or do I identify that as each leg, one leg is cash in dollars and the other leg is a series of LIBOR fixings and dollars? I would argue you'd probably want to go to the very atomic level of the second of you'll end up extremely confused because cash on a swap and cash on an interest rate swap would no longer be the same thing just to give a simple example. So I think the discussion in the rule is in the wrong place, but if you moved it over to the confirm descriptor then I think there's a very good discussion to be had and the main thing is to be as atomic as possible to say for each individual think and then you get a lot of consensus where everyone agrees on what all the fixings are for example.

MR. TUPPER: My name is Bruce Tupper and I work for the Intercontinental Exchange or ICE and I manage the Commodities Confirmation and Warehouse. To follow-up on some of the comments, I think it's become clear that there are solutions in the market by asset class. There are many services, whether they be warehousing compression, confirmations and each of them have to come up with their own scheme in order to capture the concept of a product or trade type. I do agree with earlier comments to try and understand that's the purpose because we, or at least I can speak for Intercontinental, create products for a very specific reason as an exchange and as a trade warehouse but in order to trade the correct products for the Commission, for example, if you're trying to aggregate up exposure on a particular index, that may be a different way than in some of these products. We say at least in the commodity space, when we were creating our product schemes we looked toward our customers' trade capture systems and the trade capture systems that were offered by the vendors to come up a scheme that people could collectively write to and adopt, but we did that for a specific purpose. So I think probably some clarity on what you're trying to do with the products as far as from the Commission's perspective would help us.

I do agree that once you have that and there's a working group, that can be solved. I do agree that we should probably look at this from more of an asset class perspective because I think each asset class has its own ways of doing it. Like I mentioned earlier, CDS has a certain way and commodities may be different and I'm sure it's different in other asset classes so that that is probably a consideration for the Commission.

MR. PERSSON: I'm Ola Persson from FINRA TRACE. I'd like to echo what Sunil mentioned on the dissemination side and the investor protection issue in terms of -- either can understand what they're looking at based on the identify that came out or that sufficient descriptive information is made available together with that record so that they understand how to interpret that data. The other thing I'd like to tie back to with what you mentioned that we are obviously in the process of expanding TRACE to cover securitized products at this point and we're going through some of these issues because there are a fair amount of securities that trade assigned CUSIP and clearly a joint industry regulatory solution is a very good way to go because whatever as a regulator we come up will have to work for everybody anyway so that sitting down at the table is very, very helpful.

MR. ARORA: I think that the subset of products that is highly standardized like the ones that trace on ICE for example, an identifier that if an canonical representation of standardized products which is a subset of the broader market, I think that probably is not a controversial topic here. It's the rest.

I want to comment on the verbal description comments that Sunil and Ken already referenced. If you look at the C.F.R. Part 43 that CFTC has put up and I've gone through it in gory detail, I think it's a very good starting point. There is a very detailed set of attributes with possible values for example as I said earlier what a contract type is, what a subcontract type is, what an asset class is, what the underlying asset is, there is a topology or tree-based topology that is a very good starting point for this and I think that that would be a description for the nonstandardized products part of the market and it's almost descriptive because it pretty much lays out the hierarchy. I'll underscore that the main point I'm talking about is that this topology is going to be an organic, living topology that's going to innovate and change so that the ownership of that and how you delink it from the rules themselves is a key point.

MS. LEONOVA: What is an efficient way to accommodate the innovation of those instruments?

MR. ARORA: I think make the industry as a whole responsible to maintain that in conjunction with the regulators because the regulators will ultimately keep specifying purposes. Purposes themselves may change over time, but I think that way a consortium of industry participants co-owning that topology would probably make it easier to maintain that prescriptive topology from just one of the players in the marketplace.

MR. CHIDSEY: Again I think looking at is then what's been done with FpML is a standard way to describe financial transactions across a variety of asset classes and instrument types is a good example and when a new instrument needs to be created or added there is a working group that opines on that and ultimately it gets defined via FpML and the necessary fields to describe that particular transaction or instrument are utilized so that a similar sort of model can be used going forward to manage this topology.

MR. LITKE: I think I agree for the vast majority of contracts that FpML is good. I think for exotics you have to be a little more careful and you need some sort of scripting language. There are vendors that sell them. There is also one of your fellow regulators. The SEC has proposed for example for securitizations using Python code that's made available. You'd still have to have standards for it because this would be a different than their use so you'd have to standardize what the terms meant, but you need something like that in order to accommodate innovation. The vast majority of transactions will still be done in the standardized format, let's say something like FpML and you could have some rule that said if some class got over a certain size there would be a way to we recognize these are all sort of the same, create an extra FpML class and then to come back to the industry, but without that you're going to standardize everything which sort of goes against what the whole OTC market is about.

MR. ARORA: May I comment on that? I think on the highly exotic part of the market, the one way as you said is to essentially have Python code level standardization. The potential problem there would be how much transparency to the players in the market want to give each other to what may be proprietary stuff and that speaks to competitiveness. I think one of the approaches that within the FpML groups, the various participants have discussed for the highly exotic market is again going back to what ultimately will be the purpose of these descriptions for the marketplace. It may be possible, I'm putting it out there as an idea, to have the notion of a generic description which essentially captures just the bare minimum that may be sufficient for the regulatory purposes and a full-blown description is right at the outset taken as not a possible thing to do in a highly dynamic way. Internally we have attempted that and I think we have succeeded with it pretty well and we're pretty happy with having this subset and we call it the generic exotic instrument. Just a thought.

MR. TUPPER: I'd like to follow-on on that point. I do want to caution the Commission against prescribing a particular messaging protocol. For example, FpML has had a lot of adoption in some asset classes but probably not so much in energies. To follow-up though, I do agree with the idea of having a more generic reference. For example, within ISDA there is the Commodity Definitions Working Group and their purpose is to update these indexes that are used in the various swap transactions. Ideally they can be very complicated and exotic but many of them always tie back to some kind of description or particular index regardless of the asset class.

We spend a lot of time working with that group in particular because by having those kind of generic codes that are really the building blocks of most swaps and having clarity with those it allows you to process a lot more transactions. I don't want us to confuse having those building blocks versus a very robust messaging protocol in order to communicate the trades. When you start getting into exotics and processing them, it comes back to what is the Commission's goal. Are you trying to find a particular exposure for an index? Even though it's an exotic trade, I'm sure that this group could probably easily do that for you so that it could come back to that. Specifically for commodities, you could use the example of the Commodity Reference Price Index Working Group. They regularly update that and that's something that you could look at for product definitions.

MR. CUTINHO: I don't often agree with my colleague, but this time on the panel I do agree with him that we cannot prescribe a specific language. As an example, as a business we support multiple standards. Some are prevalent in the securities market, some are prevalent in the standardized futures market, some are prevalent in the over-the-counter markets and it's less disruptive to market participants across the board. If I were not a technologist I would have thought you guys are talking about snakes. Python?

To emphasize one point, I think we talk about what is the desired use of this product identifier? To put it another way, you can't expect the product identifier to be everything. You can't expect it to be very unique capturing all the details of the trade. You can't expect it to be at the same time very generic. So we have to choose between the two. When the Commission says specify the underlying nature of the swap, what do we really mean by that?

MS. LEONOVA: I guess it's time to narrow down what we are talking about. If we are trying to achieve too big a goal of capturing the exposure metrics and at the same time trying to control the speculative position limit mechanism, do we follow the same system of product identification or do we have to go in different ways?

MR. LITKE: I think unfortunately they're different. I think as soon as you get to the speculative position limit you need to capture risk information. Let's say you knew it was something like LIBORs or you're going to do it in future equivalents, the mere fact that you have a swap or various kinds of options, just in a simple option the delta changes every day depending on the time to maturity and the price. As you get into more exotic instruments it can vary quite wildly. You could capture that as a risk field, but that's a computed number that would have to get reported every day and what gets reported at the time of trade is not particularly relevant. You might want to specify all of the risk fields that a transaction needs to be mapped to, but even that depends on the underlying model you're using so that you're asking for somebody to report something that's really something unfortunately the Commission is going to have to do for itself which is decide how they want to measure the risk on the transaction.

MR. CUTINHO: Since I asked the question, I have to respond. I echo Adam's point. It's not just the counterparty information, when we talk about exposure we need to understand the specifics. Exposure to what and position limits? Let's say, I'll give you an example, if you're looking at the very granular level and you say that I want to just look at limits on 1-year -- that means very little because you can have a party trade very little on the short end of the curve but take greater exposure to the middle part of the curve or the end part of the curve. In terms of exposure and position limits, what we are trying to understand is what is the overall goal. We are starting from the premise that it is systemic risk to understand if that a single entity has undue exposure or very large exposure to a certain market or a certain part of the market and the effect that the economy can have on that single counterparty and then how it translates to the rest of the market. If that's the case, maybe we need to have a discussion as an industry with our participants around here as to what exactly is the Commission looking at and perhaps we can come up with some of the principles as far as creating the product identification before we get into the details of how we should generate one.

MS. LEONOVA: Going to levels of aggregation of data based on the product identifications and we don't know, where should at least we cut the line off? What levels are there and what is the appropriate level that we should be targeting?

MR. ARORA: It would help if you would articulate the purposes to which this aggregation will be used. That will help because that's a very multidimensional problem.

MS. LEONOVA: Thank you, Kulbir. Our immediate market oversight goal again is speculative position limits so that when we are talking about that aspect of oversight, we are going back to the futures equivalents and some type of conversion. That's one problem for us, how we convert something in futures equivalents. The second question is systemic risk exposure. When we are trying to capture the system and decrease exposure, what should we be focusing in on? Is it overall net asset value or whether we should build in some kind of curve or what do you think should be the focus?

MR. LITKE: I think for the position limits which fortunately I guess primarily you're changed with doing that on the agricultural commodities to avoid people cornering the market.

MS. LEONOVA: We used to be.

MR. LITKE: But I don't think there's a requirement to have position limits on for example interest rates for a bank. I thought under Dodd-Frank the banks were specifically exempt in terms of proprietary trading, that interest rate proprietary trading was still allowed.

MS. LEONOVA: Let's not go into the

exemptions but assume that we are trying to cover everything.

MR. LITKE: If you're trying to cover everything then you're going to have to for each asset class define what you mean by risk. In commodities it's fairly easy because you're in some sense worried about how much can a speculator corner the market. In interest rates, nobody is going to corner the market and what you're really concerned about therefore is how much can they make or lose and it becomes more of a prudential supervision issue than a market control issue. For that you're back to defining how do I want to measure risk. For systemic risk, you're interested very much in stress tests in the sense that you've got to have some series of stress tests around people's portfolios and see how much margin is going back and forth. But it's ultimately it's model driven so capturing fields is not the issue, it's capturing confirm data in a standardized way so that you can apply models to that confirm data and compute the risk.

Effectively what you're saying is you want to be a super- clearinghouse. You want to do the same thing that a clearinghouse does but you want to do it across all the clearinghouses so you can watch all the margins moving through the system and all the clearinghouses have to have their systems for modeling these things.

MR. CHIDSEY: One comment in thinking about it from a systemic risk of exposure perspective I think trying to tie it back to the product identifier question is that probably argues for a very segmented set of identifiers across again the different fields to identify a particular instrument because ultimately you may want to look at risk from a number of different angles so that an identifier that collates a number of different fields across a number of different variables I don't believe will actually aid you in that goal. In fact, the more finite the description is the better off you'll be to be able to run scenarios and look at exposures across a variety of different attributes.

MS. DREW: From the identifier aspect of things, in us segregating the cash and derivative product identification process and registration, we should look at that and study of it across industry. As to the overall net aggregate exposure you're going to need across cash and derivatives. Us looking at it segmented just in the derivatives space and not being able to roll up, probably we need to look as a unit to see if that makes sense. If there is going to have to be some single entity, there's going to be one hierarchy tree. When you look at a company such as Lehman you're going to have to be able to fold all the positions into one, and not looking at it like that I think across asset class and having common asset categorizations, product classifications across both markets, that's where you're going to do your aggregation in the OFR and in your organization. So I think bringing the trade groups together across cash derivatives having a common taxonomy, having a common set of trade transaction specifications that go out all the investment banks' doors is needed and that common taxonomy is probably something not trivial for us to put together.

Purely in the cash space, we don't have a product identifier even though this is in the most mature product. We look at ICE, we look at CUSIP, we look at SEDOL, all fail providing for the cash market how you look at a product. So when we bring in the derivatives space we need to know the underliers. We can't even tell you should you put a SEDOL, should you put a CUSIP depending on what asset you are so that this is a real taxonomy modeling session that we have to have everyone sit down as an industry and really model this to talk about a life cycle and it's not going to happen cheaply or quickly or else we'll do it wrong and we'll have to be doing it again is how I look at things.

MS. LEONOVA: How far is the industry in developing the systems of classification or are there any developments in the industry right now?

MS. DREW: Within my firm there are

different varieties of asset classification so that each vendor or supplier supplies their own taxonomy. As a community we need to have a high-level matrix of what these categorizations should be and that's going to be a lot of heated debate and I'm sure others could add to that.

MR. ARORA: Arguably FpML is the first serious attempt at standardization. Keeping aside imposing a particular protocol, the fact that instead of looking at FpML as a protocol, if you look at it as an agreement on what set of attributes describes a particular kind of derivative, it's as far as I'm aware the first serious attempt across players. You're right, Eleanor, that each one of us has internal systems, but the need to bring it all together is more recent.

MR. TAYLOR: Let me ask, when I was teaching I used to tell my students there is no such thing as a dumb question. I might be about to disprove the rule. I'm hearing people say lots of things about the need for the important level of granularity in this area and I feel moved to ask you all, the concept here I guess is that each swap that's reported to a swap data repository is going to carry a single product identifier. Is that the right way to do this? Is it possible? Will it work given the multifarious nature of how many products there are, millions if you want to look at it that way in some asset classes?

MR. TUPPER: This is Bruce from ICE. There's a subset that you could definitely achieve what you're saying, but it's going to be difficult and Kulbir has definitely touched upon this, we've been taking to a lot of our customers about is how do you capture exotics when that comes up? As to your question, it's obviously your interest is exposure and stress testing. With exotics by nature there may not be a lot of trade records or submissions to the future SDR, however, there is usually very high notional value to those transactions and that's what you're after. The trick is going to be I think you can get the common trades and I would say many of those will be in process today, but with trying to get your arms around how you're going to classify exotic transactions and do that in a manner where you get enough information so you can fall through on your stress tests and exposures is going to be difficult. That's the hard part.

MR. LITKE: One thing you might have for things that have become standardized have standardized terms and then I think you mentioned in the rule having something called multiasset and you could also have something called exotic and as long as the exotics are below a certain percentage of what gets traded, then you wouldn't worry too much and if it gets above that percentage then you have and go into a deep drive and ask is there a new standardized name we have to add, but there would have to be a process there. It won't give you risk reporting, but it will give you information about volumes in the marketplace which I think is useful information.

MR. TAYLOR: Following right on from that, if we're going to make a system that says we have Buckets A, B, C and D and however many and then we have a bucket called exotic where we haven't classified it, where are the buckets that we can classify and has somebody done the classification system at least for them that we ought to be looking to?

MR. LITKE: Everybody has done them and they're all different. You even acknowledge that in the rule where you talk about people talking about whether cross-currency swaps should be considered a foreign exchange product or a rate product. In fact, in most concerns they're considered both. The FX Desk considers them to be a foreign exchange product and the Swap Desk considers them to be an interest rate product and every firm has a single maturity line usually that they've fought over for many years where one business gets to trade them as the market maker and the other one gets to use it as a hedger so that they're called different things once you get inside that line. We all have them but there isn't a standard.

MR. ARORA: David, isn't the heart of your question if the exotic bucket has numbers that worry regulators that that's when it becomes standardization? I think one of the ways linking it back to my point about generic, if volumes however we define them because it's not just the number of trades, it could be on a particular dimension be it notional exposure or risk or whatever, where the risk is "worrisome" then an attempt should be made it define it into a standardized product because the volumes have reached that level of threshold. I think up until that point -- you've alluded to there is no such thing as a dumb question, I have an analogous thing. Whenever you make a taxonomy or a classification there always has to be what's called the miscellaneous category or the garbage category so you just can't figure it out. And I think some kind of a process, I echo Adam's point, has to be agreed upon to keep changing this topology or this classification.

MR. TAYLOR: A follow-on question to

that as well, would it make sense to approach UPIs separately by asset class or not? Are there asset classes where it's easier to do this or where it could be done more quickly? Are there asset classes where we ought to allow more time for it? Is distinguishing by asset class something we ought to do?

MR. CHIDSEY: I think if the fundamental premise is a requirement that's around the taxonomy and defining that taxonomy, I think logically to make any headway it's going to have to be by asset class because again there are distinguishing characteristics by asset class. So I think that drives the need to divide the discussions and decisions up by asset class and then from there see if and how a UPI could then be applied to each asset class.

MR. TUPPER: I agree. I think there is probably some guidance or some commonality at a very high level for the Commission's benefit you could prescribe some type of way. I know in the proposed rules you did where you were trying to put in an asset class identifier as part of the code and you could begin there, but there are definitely a lot of unique attributes to each asset class and I think in order to have people accept potential unique product identifiers you're going to want to look to the existing systems and how they're doing and if you can work around that you'll gain an adoption rate that participants are going to be able to submit you the data and the way data is arranged, it is different by asset class. That's just the nature of it.

MS. DREW: I think the way that you roll out could be by asset class, but as a system designer when I look to build systems, what I like to do is gather all artifacts and create relationships in my modeling as well as my domain values and my taxonomy and then once I have it modeled then I would roll it out on an asset class basis. Just the thought of the entity and how it applies to the cash, how it applies to the derivative and the action, we have to look at solving that problem using that ecosystem. If we segment it, we'll do it really good once for one asset class and the model will completely fall apart when we look at the next asset class. Based on the experience of building a consolidated cash and derivatives environment, I made a lot of mistakes in my past by just doing it segment by segment only to have to redo it. So I would approach it that way as a system builder.

MR. HAASE: This is Ken from NFA. I would agree exactly with Eleanor. You really have to at the whole thing. You can roll them out separately but they really have to work with each other. Going back to one other point as far as aggregation and things coming up and what the regulator might want to use the data for. The other question I guess I would ask the Commission is do they view themselves then as the endpoint or is this data being passed up even further to other agencies where they may be doing combinations so that any type of standards or anything that you're setting up obviously has to work with them if there's a place to bring it all up to one place on top.

MR. TAYLOR: I'm thinking of a question and I was trying to think how to put it and I may put it badly. I think I've heard probably several of you suggest that it would be a good idea for the industry to be involved in defining this taxonomy and that there be some mechanism for allowing for future development in that and not setting it in stone in the rule. It's always a goal for a regulatory not to have to amend rules and I'm sitting here thinking on February 7 we have to go behind a curtain and we can't talk to you guys anymore and we have to put something in the rule. What sort of mechanism might it be useful to establish for industry and regulator cooperation on defining and maintaining and evolving a taxonomy over time? In other words, what could we say in the rule that isn't going to have to be amended later that sets up a mechanism that can do those things? Did I make sense with that?

MR. ARORA: Very much. That goes to the

heart of one of my points. I'm not a lawyer and I don't know how to say this, but I think a professional industry organization whose purpose is precisely cross-industry participant standardization with I think the regulators being at the table, if somehow the rules could reference such an arrangement where the ownership of to be specific the part of the topology is held and if the rule could reference a mandate, or what should I say, a demand to abide by that topology for every person in the industry, that might be one way. It's sort of a level of indirection if you will, but it seems to me how that's wordsmithed is your expertise, but I think that may be one starting point.

MR. TAYLOR: I'm going to put Ken on the spot. I know if people here are looking for a body like that that could hold this thing, NFA will cross people's minds. Does that sound conceivable?

MR. HAASE: I'll give a good party answer to that and say that just about anything is conceivable, but it's up to the board of directors at NFA to make that final decision.

MS. LEONOVA: I want to go back to multiasset classes and mixed swaps. What is an effective system to classify multilayered things? Should it follow the same system for any product ID or -- to have one identifier and break it down by components?

MR. LITKE: I think if you move the product identifier from the trade level to the leg level you would carry the vast majority of multiasset trades. That would just leave out things like basket options. But if you put it down at the leg level then you effectively say this leg is this type of product, this leg is that type of product and that would get you a long way because then a trade is just a portfolio of those legs. If I trade an option on three stocks or even worse on one stock, one commodity and one foreign exchange, there is no way to really handle it because it's just going to come in as multi.

MS. LEONOVA: It doesn't really help us

in a way that if we accept the fact that we have multiple underliers, what are you doing about speculative limit position aggregation? Do we double aggregate them or do we single aggregate them? How do you handle it?

MR. LITKE: You can't aggregate that way. That gets back to my earlier comment about risk based. Ultimately for things that go through a clearinghouse, the clearinghouse is not using a standardized formula. I don't know if our friends from DTCC are still here, but for example if you look at SPAN margining, there's a formula but behind it there are models and they change the numbers when the models change and if you don't have a risk-based system for those things there's no way to do a standardized formula. In many of those transactions for example there is something called the gearing factor so that I can have an option on 5 times X or I can have five options on X and economically they're the same thing, but if you did your speculative limit without a model you would think they were two completely different trades. So if you really want to have speculate limits, you're going to have to build some sort of risk-based system for all of those things and whether that means requiring people to submit models to you or having your own models, that's going to be up to the Commission but you can't do it in a simplified way and you can't just trust firms to report their numbers because of course every firm has its own models.

MR. CUTINHO: Adam, I'm going to disappoint you. It's not the DTCC who is going to help with this, but it will be the CME. So you're right that when we look at risk we don't look at product identifiers. It's across products so that we look at it on a portfolio basis.

MR. TUPPER: Just to try to expand on Adam's description, when we take in data, we try to take in data and break it down into its simplest parts and then those models are going to do what they need to do. So from the Commission's perspective, I think if you're going to try to tackle this, what you're looking to do is create a model for whatever purpose, you need those inputs and you need them in their smallest parts and as clean as possible and then you're going to develop whatever models around those inputs to get the reports that you need. I hope that makes sense.

To summarize, whenever we're taking in data we always break things down to a leg level or individual reference price level and customers always report exposures based on those particular legs on that reference in the amount of notional dollars they have on that whether they're paying and receiving and then we pass that trade data on to various systems that do different things with that trade record.

MS. LEONOVA: So it should be called not unique product identifier but unique model identifier?

MR. LITKE: No. The model is your model. You could change your model. One day you might decide that you have the best model in the world for this product and a year later you've come up with an improvement on the model so that you would change that. So that's not a unique identifier per se, it's whatever the Commission decides to use. What you need is enough information in the confirm record that is submitted by the participants to be able to reconstruct the trade so you can take that trade and put it into your model.

MS. LEONOVA: This model is going to be asset class specific and is going to identify all the legs that will allow to capture the exposure if you link it back to the confirm?

MR. LITKE: There is a data model and there is an analytical model to price it and then there's a risk model that has to run all the data models so that there are three different models there. Only one of them is the data which is the data model for the confirm. The other two are really analytical models.

MR. TUPPER: But there are sources out there for you to get the individual pieces. With CDS obviously there's Project RED, on commodities there are commodity price definitions which are done by ISDA so that there are places for you to create those if you're thinking of these individual inputs that are out there that are listed. It's what you're going to do with them afterwards that's really not a product.

MR. CHIDSEY: Another way to look at it is there may be an opportunity for unique identifiers almost at the field level and again for certain fields within a taxonomy for a particular instrument it may make sense to have identifiers as a way to ensure that there is consistency and standardization for that particular field so that it could actually be several different types of identifiers for different types of fields, but to try to roll off of that together into some sort of aggregate product identifier I think is complicated and I'm not sure serves the purpose of what you're looking for around risk and speculative position limits.

MS. LEONOVA: I'm trying to process the information. It sounds like what you're saying is that we have to come up with a set of some kind of data fields that will be sufficient in order to in general terms describe whatever something is going to be is reflective of this product notion. Do I understand it correctly?

MR. CHIDSEY: I think the short answer is yes.

SPEAKER: The long answer is maybe.

MR. TAYLOR: I have a question passed to me from one of your Data Recording and Reporting Team members who's listening on the phone from New York. We were talking earlier about the exotic bucket among the other buckets and he prompts me to ask, and it's a good question, how big do you think that bucket is? We have some information that suggests that vanilla is probably some high percentage, 80 to 90 percent of all swaps and we shouldn't be all that scared about the exotic bucket, but what's your sense?

MR. LITKE: What we see in our pricing service, it's probably less than 1 percent, but if you want to know what somebody's risk is and you have a exotic hedged by a vanilla, that could be the unbalanced part of their book so that it's 99 percent of the work and 1 percent of the product.

MR. ARORA: I'd echo that.

MS. LEONOVA: I want to go back to the product identifier question that we were discussing before. You probably saw that we came up with some kind of proposed minimum list of data fields that we tried to describe this particular product by asset class. Is it a feasible approach? I shouldn't say feasible. Everything is feasible. Is it a reasonable way to try to capture these risk metrics that we were mentioning and product classification metrics that we were discussing?

MR. CUTINHO: For risk purposes, you can't just look at that minimum set of information. I think Adam was pointing out to this panel many times that all the information in the confirm is essential. That's important for the analytics and it's important for risk as well. I think Kulbir mentioned this before that it's a great start to have a taxonomy and a structural hierarchy. What is important is it has to be extendable and then I think we're going back to what is the original purpose. I think if the purpose is if you want to find out if a certain derivative is traded across execution venues and you want to see at what price it's traded across these venues, that has one level of requirements. If you are looking at a counterparty and you want to find their total risk exposure and then that is exactly your interest, then we are questioning I think to some extent how a product identifier would help you get there.

MS. LEONOVA: Are we talking about transactional level reporting versus portfolio level reporting here? It's not a question of particular data, it's a question of level of aggregation of data on the reporting entity level?

MR. CUTINHO: Yes. In essence embedded in my question is what is the purpose of the level of aggregation? If you're trying to find out there is a certain type of derivative that's traded across execution venues, if your objective is to find out the price ranges where does it trade. What is the market? Where is it trading? Then that has a certain set of aggregation or a certain set of fields you would use. If you're looking at a portfolio basis, if you're looking at risk and if you're trying to identify risk, then when you look at a counterparty I think it was mentioned before that you have to look at the underlying positions, you have to look at the derivative positions, you have to look at their exotic positions, so we don't understand what a product identifier will help in that respect. You don't need to look at the product identifier. You look at the risk using the data within the transactions that is at your disposal.

MS. LEONOVA: It sounds like in your world our notion of product identifier is something like futures equivalents type measures of swaps that we are trying to aggregate for the speculative position limit but it's absolutely useless for the risk measure?

MR. LITKE: I think a futures equivalent

is a potentially useful risk measure. The problem is it's a calculated field that is based on a number of things that are different than the description of the transaction. You have to make some additional assumptions and know something else about the market. It's useful, it's sometimes necessary but it's almost never sufficient.

MS. LEONOVA: I guess we have 15 minutes for questions and answers. I see that the audience is impatient with asking questions.

MR. TAYLOR: We couldn't get any questions out of the audience before lunch.

MS. LEONOVA: Here is a microphone. Would you mind?

MR. AXILROD: I just wanted to throw something out and see what the panel thinks of it.

MR. TAYLOR: Please identify yourself for the reporter.

MR. AXILROD: Peter Axilrod from DTCC. In diving deeper into using these sorts of identifiers for risk-management purposes or risk-oversight purposes, I tend to share the skepticism. It's a little like trying today to manage monetary policy through the money supply. Ten years ago or twenty years ago people thought they knew what money was. Today it's very, very hard to define so that it's not going to be a good instrument. I think what you're hearing is that product types, and one way to think of them is sort of how ISDA master confirms are there? There are a lot of them, and systems tend to divide up the world that way. I don't know how many there are in equity derivatives, there might be 50 or 60 now, credit derivatives have about 30 or 40, commodities, they're not only ISDA, there are elite product types and other product types and it goes on and on. They're very useful. They're used for as a sort of shorthand and when people see them they know what type of instrument it is. But I guess I would urge for risk purposes or position limit purposes, you're going to have to use a blunter instrument. You're going to have to look at exposure to underlyings, what direction it is and whether it's linear or not and add it up and you're going to have to not be afraid of false positives. You're going to have a lot of data in front of you and if some of it indicates that there is a problem and you ignore it because you're worried that the data is incomplete, you're going to be in trouble. What's wrong with having sort of a rough approach which looks at underlying exposures that is structured in such a way as to give you some false positives but that just means you've got a phone call or two to make?

MR. TAYLOR: Are there any reactions from the panel?

MR. LITKE: I think it's fine if you're trying to use it as a first step to look at risk. I think the dealers and the market participants might find it somewhat problematic if it were used for hard position limits. So I think it really depends on whether you're using it for a limit or you're using it as an early warning signal.

MR. AXILROD: Early warning. I don't know that hard position limits is something that actually works given that it's almost impossible to find a good measure of this so that it was something that would be an early warning and cause somebody to drop a dime.

MR. ARORA: I had the same concerns. If it's going to start affecting workflow on a daily basis, that would worry me. If it is more about an indicative kind of sense to the regulators, I suspect, Peter, there are going to be a lot of follow-up phone calls in your example, sir.

MR. TAYLOR: Are there any other questions from the audience? Clearly they know everything they want to know. I have one. A lot of you were here for all the panels this morning and obviously I was and I listened all the way through the discussion of unique counterparty identifiers and there seems to be universal agreement that we need them and everybody has a fairly good idea of what at least they think they ought to be and how they ought to work and the debate is in the details. I listened to this discussion and I'm not quite hearing it. How important do you think it is that we have these identifiers? Am I wrong? Is the appetite for a UPI somehow less than for a UCI?

MR. ARORA: I think it's because of the complexity involved and that's why my initial point was what purpose might help. Maybe one way to look at it would be to do a volume analysis and I hasten to add that what we mean by volume needs to be defined. And maybe if we take it one step at a time, the more standardized products do make up the highest volume debt, it may not address one of your concerns about risk hiding somewhere in the system, but at the very least that's where something can be done. I think the worry that you hear if I can speak for all is around where the definitions are much more complex and much harder to come a consensus on.

MR. TAYLOR: You all are asking in a sense what for about these. One sort of obvious answer that occurs to me, and I thought maybe I should this because the existing universe of repositories and if I'm not overstepping to say so, I think more the European concept about repositories, tends to be that there might be one repository in an asset class and so in this one place you can see all at least for that universe and that's not the Dodd-Frank concept. It contemplates multiple repositories. The market may end up dictating otherwise, but at least for some period of time one of the purposes I guess of a product identifier would be able simply to see of this thing, what all is out there across all of these repositories. That's kind of simple and basic.

MR. CHIDSEY: Again I think what you're hearing is the need for a common taxonomy or common topology, there seems to be universal agreement there. Then again within that there may be an opportunity for identifiers, but the idea of having a comprehensive product identifier at this point, until you solve the common topology or taxonomy, the common product identifier is probably something that would need to be considered later.

MS. LEONOVA: So that you're talking about an aggregate system of product description and now it's quasi-agreed is FpML a legal confirmation type but it may be a good way of doing it or maybe not a very good way of doing it but that's a change of direction that you think we should follow?

MR. LITKE: For capturing the information for risk purposes, yes. For answering the simpler question of what's here and what's there for volume studies, you could use a broader solution. And for price reporting where you want to see if there is market abuse, for the standardized trades you're going to get all of your information out of standardized names.

MR. TAYLOR: One follow-up question on the comment that we need the taxonomy first which I think makes sense to me, do you all think there is a way to come together in some consensus on a taxonomy on the timeline that the rule has which in rough terms at least would mean doing it this year?

MS. LEONOVA: I can narrow down a question. Is it possible to agree on a limited set of confirmations that are going to describe the whole universe of products? You can say maybe.

MR. ARORA: They're both tough questions and I'll be optimistic because the number of players in this marketplace is small and I think that's a positive, but the complexity is not and I think that's the negative. It's an aggressive timetable.

MR. TAYLOR: If more time than that were needed, what do you think it is? Rules can be structured for things out there further, but too much further won't sit well.

MS. DREW: I think the working groups that are participating in the LEI conversation, some of those folks have been in discussion on the on the common product ID for the last 10 years and nothing happened. Realistically I think looking at what's going on in those working groups and evaluating after a month or so after they have some straw man or hear the finite set of fields we need to get agreement on and then readjusting the July date accordingly, but you have to sit down and model and you have to sit down and not rush this because if we rush it we'll have to do it again. The working group that's in place right now I think is very effective. All the right players are at the table. My advice would be give it a month, come back and then set an appropriate time limit once the modeling is done.

MS. LEONOVA: Does anybody have good news?

MR. TUPPER: It's a rule of thumb typically is a product is standardized enough that a clearinghouse is going to accept it, then there's the first set. If you're looking for a set of trades, cleared swaps, you're at a point where all the data values are pretty standardized, people agree, clearinghouses are clearing on it, there's your first set. Once you leave that product set, each traunch of products depending on how complicated they and you've heard a lot about the exotics, it's how hard you want to work. The last 1 percent is 99-percent of the work. I agree with Adam wholeheartedly on that. You could spend a lot of time on the exotics which we have discussed at length. But if you're looking to put timelines, there is a lot of mention of reporting cleared swaps and that would be a great first start. And then maybe adding a concept into the rules with the exotics, and then you're going to have some products that are kind of in the middle.

I do think when you prescribe rules you do need to provision whatever standardization body is going to be tasked by asset class to do this work. The industry will invent products quickly. I think everybody here has probably been told I have the greatest project. You need to list it on your system. You do that because you're a provider of central services. And then you have this miscellaneous bucket and out of that bucket some things do make it but a lot of them don't, but you do need to allow that innovation in the market because there will be times where you're going to have to amend and list new products as they come up and I'd hate to see the rules be so prescriptive that it wouldn't allow windows for these updates.

MS. LEONOVA: I guess it's time to call it a day. We are done with this panel. Thank you very much for making the trip to Washington, D.C. and talking to us and we will see you in 15 minutes.

(Recess)

MR. TAYLOR: So would the people for Panel 5 come up and take their seats, and bring your name tag with you, if you have it. Are the rest of the Panel 5 folks here? We're going to go ahead with that, and then we'll take our break after that. It makes the afternoon too long if we do it now.

(Pause)

MR. TAYLOR: We're missing a couple of folks. Let's see -- Arthur and Ola.

MR. MAGNUS: Arthur's here.

MR. TAYLOR: Oh. Oh, hello. Right

under my nose. We're missing Ola.

MS. LEONOVA: No, no. Ola is going -- Ola made a switch.

MR. TAYLOR: Okay.

MS. LEONOVA: Okay, sorry about that. So now we are going into our next panel. Hopefully it will be not as controversial as the previous one. Now we are talking about Unique Swap Identification, or Unique Transaction Type Identification -- and to give a brief explanation of why we use this terminology. We discovered that industry has so many interpretations of what a "transaction" or "deal" is, that we ended up calling it just "swap." So there is no hidden meaning here. The underlying notion of these identifiers to keep track of a transaction, and we understand that everybody does it one form or another. When it comes to the unique ID for swaps in our world, we understand that we're going to have to deal with some system of compressions, (inaudible) that is kind of dilute. So it's unique.

So by this -- and it has to come up into something else that brings a notion of what is the most, again, efficient and effectiveness system of tracking, and so it's individual transactions that will accommodate regulatory needs and at the same time will fit into the current systems of counterparties. So, anyway, it has an (inaudible) how it should be done, where it should start, and how it should drip down into the SDR.

MR. TAYLOR: And --

MR. CUTIHO: Sorry.

MR. TAYLOR: Go ahead.

MR. CUTIHO: I beat you to it. Very quickly, I think I'm trying to understand the purpose or if -- just to rephrase -- you want to track the transaction and its life-cycle. We do have a concept today, when we receive swaps for clearing. It's called a "Platform Identifier," because we don't have execution facilities yet. We do think it will be helpful, but we think it should be linked to the execution venue, and should have some form of an intelligence to prevent collisions.

If the purpose is just to track a transaction and its life-cycle, one way to -- I mean, it has to be unique, of course -- things to keep in mind are not all transactions are executed in execution venues. Some of them are voice-confirmed, or affirmed, on platforms. So, to the extent that these IDs are easily available, they have a very transparent algorithm, I think it will help -- and not just the clearinghouses, but it will help the regulators, as well.

MS. LEONOVA: Okay, so to expand it -- so, in case of centralized execution we are more or less confident that staff for the CM will be able to assign some kind of number. When we are talking about non-centrally-executed transaction, it goes to clearance, we would assume the clearinghouse going to assign the number when it's not going to clearance, or who is going to assign the number, or how will the flow be (inaudible). What are we talking about here.

MR. MAGNUS: So, if I may -- I'm Arthur

Magnus from JP Morgan -- I still think -- first, I do think there's a big difference between cleared and non-cleared, but even in the cleared environment, I think we need to be very -- pardon the pun -- clear on what we mean by "transaction."

Let me talk about the uncleared, and then I'll come back to the cleared one in a second. When we put on a position with a counterparty -- I'm just going to make an example. I do a trade with you, Irina, and it's $100 million transaction. I've now done it, it's an event, a new transaction.

At some later date, something may happen to that. It may move to a clearinghouse. Now, it moves to a clearinghouse -- and we'll say David's the clearinghouse -- is that a new transaction? Or is it the same transaction? But now the clearinghouse is sitting in the middle.

Now, if your expectation is -- and I saw David shaking his head, "No, it's not a new transaction" -- it does need a new identifier, though. Because my transaction with David, and

Irina's transaction with David are gone, and we've created a new transaction. And it has to be that way, because I can't report, in any way, shape or form, on my transaction with Irina any more, because I don't have the relationship with her. So we have a new transaction ID of some sort.

A different scenario is I have $100 million transaction with you that's bilateral, it stays bilateral. And then at some point I want to lower the risk to $75 million. I can do that two ways. In some markets, I would do an offsetting transaction -- a $25 million trade with you in the other direction -- and we'd have two transactions on the books. I have a $75 million position, but two transactions. In other markets, I might do a partial unwind -- unwind $25 million of that, which is an event on the same transaction.

What I'm trying to get to here is to say that we have to be very, very clear, and sit down and figure out what are the different U cases we're trying to solve for, so we can figure out what we are identifying, and which identifiers need to live throughout their life, and which don't.

We clearly have a view at JP Morgan that if you're doing a compression, we in effect are unwinding all the trades that are being compressed and replacing them with a smaller number of new trades -- which is fine, and the compression utility can actually provide those new identifies, but not clear if that's actually what the CFTC is looking for, in terms of what they're trying to find traceability of.

In the cleared environment, we're not sure the concept of "transaction" is meaningful over a period of time. Because, again, there's reporting requirements to the swap data repositories of a transactional nature throughout the entire -- quote -- "life of the transaction."

Now, while many markets, we believe, that will never lend themselves to a standardized product -- and each individual transaction, which is perfectly clearable because we can think about the risks holistically are usable -- we are going to be able to, in other products, or instruments, be able to identify them singularly by a contract.

So if you think of the CDS Index market, that's a pretty standardized contract. We could compress that to a position, very similar to the way futures work today. And we would not want to have to continue to carry around, every day, information about the events associated with that transaction. We'd want to associate it with the position. In other markets, where we can't get that level of standardization, we're going to have to do it at a transaction level.

So I just think one of the things we need to do here, very practically, is get, again, the market practitioners together, who understand the different markets, outline what the different use cases are, and then come up with what is it you're trying to identify. Are you trying to identify for, again, trace-type purposes, to understand the transactional life-cycle over its life to look for market manipulation or things like that? Are you trying to understand what is the systemic risks presented by the trades that are on the books at a moment in time? Are you trying to do both? Are there other things you're trying to accomplish with understanding what all these things are.

And once we understand that, we can probably come up with a nomenclature, an identification that would work for this. And if you have the answers to some of those questions, we might be able to help you now.

MS. LEONOVA: Okay, then let's start from the simple solution. If you are focusing on how to trail a particular trade from the moment of execution until the moment of time in the future, do you follow the swap transaction idea that is mutating through the life-cycle events? Or we try to track the original swap transaction?

MR. AXILROD: Can I take a shot at that one? We've been doing that for a while. As Arthur said, in some cases it's virtually impossible. No one wants to take a bunch of trades that have been compressed -- there are lot of one-to-many, and many-into-one clearing give-ups, prime-brokerage give-ups -- you know, block executions with splits.

If you want -- if the requirement is just to keep an audit history, then, really, as long as the system that's doing that can relate the new trades to the old trade -- so, for instance we know which terminations are compressions. We know when the compressions were done, because we get them from a compression provider. And we're getting to the point where we know which new trades also came as a result of that compression. Those are reported by the firm, so it's not quite so clear at the moment. But it's getting there.

Or do you report us new trades? No, just the terminations. Yes. But as long as you have that information, and you know what the links are -- and particularly, know that these new trades that were coming on were as a result of a compression rather than some economic activity -- isn't that enough? You know, and as long as there's the link somewhere -- these 10 trades link back to these two, or these two link back to these 10 through a compression -- wouldn't that be enough?

MR. PRITCHARD: I can say a few words here. This is Raf Pritchard from TriOptima. I think, you know, talking generally about these universal IDs, there's no controversy about the value or the justification or the motivation of what is being described here. And the rule-making goes into some lengths about the value of aggregating across different entities, across different transactions, and forcing limits, surveillance, et cetera. So I don't think there will be any controversy in these discussions about the value or the motivation of what is being described.

And also, in technical terms -- we've seen at the prior panels today -- there's no real controversy about the ability to create universal unique IDs. We start off with venues that generate these IDs, and we can combine those with, you know, prefixes or suffixes for those venues, and we can come to a universal scheme of unique IDs. So that's not controversial, I think.

You know, what Peter and Arthur are alluding to is the practicality and the feasibility. I think Arthur made an excellent point that, you know, what having these universal swap identifiers implies is a certain uniformity of behavior in the market that where a certain scenarios arises -- and he very clearly enumerated several good examples -- that everybody's going to behave the same way. And that doesn't happen at the moment. Participants in the OTC market do, by and large, perform on their contracts, but they don't necessarily record them in the same way.

And so somehow we're going to have to come up with a rule book -- as Arthur said, a prescription -- of what each scenario is, and how to behave, in terms of do we create a new trade do we retire an old trade and create a new one, like Peter is talking about? Or do we create two? Or what exactly happens?

And somebody has to write that rule book and maintain that rule book so that everybody can follow it. And that is where, I think, the controversy around this is going to come in.

And secondly, an issue is that, you know, there's a lot of infrastructure. Somebody earlier was talking about these identifiers are embedded in thousands of systems around the industry. And they are. And often, those party systems create records, you know, very early on, when the trade is agreed to. And so we'd have to feed back these unique trade identifiers into those systems. And that's a significant amount of rework. You know, when you design a software solution -- and that's what our business is, software solutions -- you design the data model first. And when you design the data model, you design the identifiers and keys first. And if you try to change the keys to the data models of thousands of systems, then that's, you know, digging up every street and avenue in the city to -- you know, nobody's arguing about the benefit here. But it's really the amount of re-work involved in universally applying them.

And so I think some of the solutions Peter is talking about, about using what's there at the moment and, you know, linking backwards and forwards to identifiers, and using some of the, you know, identification systems that are out there and linking across them is going to give a much more faster delivery of this benefit.

MR. TAYLOR: Does it help with that particular issue -- you know, the re-working of systems -- if the use of these USIs applies to new swaps going forward after the implementation date, but doesn't apply, in the same way, at least, to what are going to get called "pre-enactment swaps," or "transition swaps," the one between July last year and the implementation date?

MR. PRITCHARD: I think that's -- just quickly, it's going -- OTC swaps, one of the things we've pointed out in our discussions here is the rate of turnover in the market. We see 3.9 million live contracts in our rates repository, but only 4,000 or 5,000 a day. And it's going to take years and decades for that approach to get to a place where everybody's got these unique swap identifiers.

MR. TAYLOR: Okay.

MR. PRITCHARD: So this approach of reusing and linking amongst the identifiers that are there will deliver value. It may be a good thing to do in the long term, but it's going to be a long wait.

MR. MAGNUS: I would also just add to that that the systems that, you know, the major swap dealers use today, and other market participants use today, whether you start using these new identifiers on a particular date in the future or say it applies retroactively is almost immaterial. Because I have to make the changes to the system in order to capture and record those identifiers, and be able to pass them in every single message that we have, among systems, in order to fulfill the requirements that you're trying to accomplish.

So once I can do that, we can probably very quickly come up with a way, in a relatively short amount of time -- it might take a year or two, but relatively short compared to the term of our derivatives book -- be able to go and get to identifiers that are for the uncleared derivative population.

MR. AXILROD: I guess I think you can't solve this problem by trying to map to lots of various different identifiers just because you then have no way of enforcing -- I lose my grip on how you do inventory control. In other words, unique identifiers, especially under a system where, you know, something's getting reported one place for public dissemination, and another place for regulatory reporting, you can have those out of sync very quickly, and no check on whether you're capturing everything, unless there are unique identifiers.

I do think the technological problem, though, is -- Raf is right, everybody -- these identifiers are essentially the key to everybody's system. And maybe just adding two digits requires a rewrite of every single table in somebody's system.

So I think if they are being created from multiple sources -- say, for instance, the execution venues -- they ought to be standardized -- in other words, so that the people to whom these things are reported can deal with them. And, in a way, I would say that the SDRs, if they don't create them, at least should say, "Here's the format in which these identifiers have to be provided." And maybe if there's a prefix for other, for different execution venues, you know, for sure that prefix should not be made public, or the individual identifier should not be made public, because there's just not enough trading to -- if people know which platform it came from, they'll know who did it.

So, as long as these identifiers are private, or only for the regulators, that's okay. But you really have to make sure that the SDRs can handle all of this stuff once they're reported to them.

MR. WILLIAMS: If I might -- Jon Williams from Tradeweb. And, by the way, thank you very much for the opportunity to participate.

You know, I think one of the things, you know, as we look at our execution business currently, across a number of different asset classes, both cash and derivatives, you know, we feel very strongly that from a unique swap, or a unique transaction ID standpoint, there does need to be kind of a point of initiation. And that point of initiation is the point of execution.

Because I would think that, you know, contained within the notion of a transactional identifier is the concept of -- not to borrow from earlier panels -- but the counterparties involved in the transaction. And so the notion of trying to report enough of the details that encompass the physical transaction -- not just the details, the mechanics of the swap -- to do that at the point of the SDR, when actually the uniting of the counterparties and the components of the swap happens at the point of execution, would be problematic from kind of a sequencing perspective.

One of the things that, you know, that we certainly do now -- again because, you know, we traffic across a number of different asset classes, with a large number of counterparties, and interact with a lot of, you know, other participants in the trade, like TTCC, like MarkitSERV -- is we certainly create a new transaction identifier. And it varies. There's a fair amount of, you know, homogeneity, in terms of the logic behind the construction of the identifiers, but each asset class has an appropriate number of characteristics that describe it. We then transmit those identifiers -- for example, to TTCC, and they respond in kind with whatever identifier they have created for that particular transaction, and we associate the two together, and are able to track them in lockstep with each other throughout the life-cycle of the trade.

You know, I guess one of the other

things, you know, from listening to some of the other panels is, I think, the key is going to be, obviously, a very -- and this is where there's going to be a fairly, a need for a fairly broad-based amount of cooperation across market participants -- is a very kind of agreed upon, as close to standardized as possible, methodology or taxonomy for describing not just, you know, the larger transaction but the pieces of the transaction -- again, those unique counterparty identifiers, and then ultimately those unique product identifiers.

MR. CUTIHO: I just want to acknowledge, and actually highlight one of Arthur's points before.

It doesn't matter whether we're talking about seasoned swaps, or things that are bilateral, or swaps going forward. But if a product is standardized, and if clearing is provided on a positional basis, then there is no ability for a clearinghouse to then report the transaction identifier on an ongoing basis. So it means nothing. It's just a net position at that point in time.

CDS as a SNAK is a good example.

MR. MAGNUS: Then again, I do want to caution that many asset classes you will not be able to do that. And so we just have to be very, very careful when we use that terminology.

Again, I want to go back and -- there are one or two other attributes I think are very important. One is, if we have identifiers out there, the identifiers itself should adhere to the general policies of good data management, which is they should not mean anything. There should be no meaning ascribed to the digits, characters, that make up that alphanumeric or numeric or character string -- in terms of who the parties were, where it was executed or anything else. Those are attributes of the transaction, and they should go somewhere else.

And I think maybe it might make sense just to think about the whole work flow. In addition to the use cases, one of the concerns that we certainly have, as we look at all of the NPRs, not just the data one, is how the information is going to flow between the various parties in the system, and how it's all going to fit together.

And a transaction ID is an interesting one, because that's something that's going to have to cut across, and isn't as well defined as the earlier discussion this morning, on counterparty or legal entity identifier, which is a little bit clearer, because they do have contracts for those.

And so I think we do need -- you know, again, and I'm going to use -- I think the way to move this forward, again, is to get a very small group of people in a room to define the problem we're trying to solve. Because there is a difference between a transaction, and I'll call it a "deal" on my books. And this is a problem -- I started in derivatives back when we were converting all of our -- Morgan was converting all of its parallel loans into swaps under an ISDA Master Agreement. And I remember having discussions, whiteboard discussions, in the room about the difference between a transaction and an instrument.

And the reason I bring this up, because when we do, in the OTC market, an instrument effectively is a unique instrument -- well, say, I do a trade with Bruce, where Bruce and I have done a trade together, that instrument only exists for the two of us. And no one else needs to know about it in today's market, that we've done that particular instrument. So any transactions on that instrument are really between us, and we use our own nomenclature.

We're now moving into a market where we have to share that with other people. And we have to think about the difference between what is my position in that instrument at the end of the day, that might only exist between two parties, and the event and the way that might change through some transaction that might occur which is a one-time event.

And the way you talk about the SDR and

the continuation data, we talk about what is the mark-to-market of a transaction over its life? But a transaction only exists at a point in time. The position I have, or that instrument, the position in that instrument, occurs for the life.

And that's where this data modeling exercise becomes really complicated. But if you break it down into its parts, we might be able to come up with a nomenclature that actually will allow us to get to a solution.

MR. TUPPER: Thanks, Arthur. This is Bruce Tupper with ICE. I'm actually -- just to kind of summarize, I'm really glad you got all this feedback.

Because when I read this section I had a lot of concerns, because operating a repository for intercontinental exchange, I quickly got a call from the clearinghouse. And they said to me, "Oh, my God. We just roll up the open interest. And I'm not really interested in an ID, nor do I have the systems to do that."

And then to Arthur's point, you got a

great view into how one, you know, one large dealer handles trades, although -- that's not to say it's right or wrong -- other dealers may just amend a trade, and keep the life -- the trade open. And as a central provider of services, we, in our system, we're required to architect a system that could do both.

And then, you know, Peter also said that, you know, you're going to be generating a lot of IDs, and then this is going to be very burdensome on the SDR, because we're going to be ultimately the one where all this stuff's coming into, and I need to tie out everyone's trade ID -- which is a lot of columns. Because every time someone gives you another ID, you're trying your best to manage your tables, and link back all the IDS.

And from the suss perspective, I think the old -- they could easily generate unique IDS, but once they report, they're really -- they're not really involved in what life-cycle processing, or what's going to happen post-trade. So, you know, this is not to -- because we also, our exchange guys are doing this and they're like, "Yeah, great. I can issue an ID." And I'm like, "Yeah, that's great. You're just -- you're around for one night, then you're gone -- " and we're going to be living with these trades for possibly years.

So I think, going back to what Arthur's saying, I think it would helpful to know what you're trying to do with this ID. I think you're going to run into difficulties trying to get every potential, just call them "market participant" to be able to manage them, because not all of them do it.

I can't tell you that the SDRs probably are best suited to do it. Because when we deal with -- I'll speak to it from our perspective, when we deal with it, we get unique IDs from each person, and we show that to them, where we process it. But to us, we always put our own behind it. So that's fairly easy for me to do that in one single system. And if I had to handle maybe a few other, or foreign entities, it would be some work, but it's doable.

Once you start stepping out of that central processor, and if you quickly get to a clearinghouse, or you go back to other customers -- if you get out of the world of the swap dealers, the idea of adding other columns to their database, and tracking other IDs is going to become very difficult. You know, they're going to have to go back to their vendor, the vendor is going to give them a quote in order to do this, because they don't do it today. Whereas a firm like JP Morgan will just add the column.

So I think we need to kind of figure you -- and I'm echoing Arthur -- is that what would you like to do with the ID? And it's not so much the creation ID, but it's the ability to keep that ID appended to the trade correctly, and move throughout all the different reporting entities.

MR. AXILROD: I guess I don't know that it's really that hard. As long as your standardizing the number of digits, and it's not too big, and everybody knows and can deal with it -- I know that, you know, the smallest municipal utility may not be able to do that. So I think commodities is sort of a little bit different when you get to -- you know, there's a lot of end-user to end-user trades in commodities. And the technological abilities of municipal utilities and other small players may not be there. So I think you need to sort of consider that somewhat separately.

But for the large financial derivatives, most people who have to report are technologically sophisticated enough. Almost everybody has their own trade identifiers. And I think, you know, giving up trades for clearing is just another instance of many-to-one, or one-to- many. There is a contractual relationship between the clearinghouse and the counterparty.

I think as long as you can solve that many-into-one or one-into-many audit trail, it's not -- actually, we don't necessarily do it the greatest today. We can do it, but it's a little bit convoluted. As long as you can do that, I think you will have your universal identifier.

Maybe I'm missing something.

MR. MAGNUS: Peter, I just think about applying that in the uncleared market. Because I think when you get to clearing, and you have that central counterpart and you can apply an ID to it, it's one thing. But there are going to be deals that are going to end up being bespoke, and will be bilateral. And the Dodd-Frank Act, and all the draft rules I've seen cater for that.

And so we need to make sure that whatever identification system we come up with also caters for that.

MR. AXILROD: No, I agree. I just didn't think it was that difficult for people that are used to technology. It's going to be very difficult for people who are not. And you just -- I do think that if you -- I mean, what we do is we map firms' IDs to our IDs because, you know, if you make everybody who's a market participant redo all their systems, it's going to be difficult.

But as long as the SDR is sure that they can track things with a unique identifier, I don't know that the people communicating with the SDR need to use that identifier. They could use their own if the SDR has linked it to a unique identifier.

MR. MAGNUS: And that probably is the practical solution for implementing something sooner, is to make that a requirement of the SDRs, to provide that -- potentially provide that capability.

MR. PRITCHARD: Yeah, I think Arthur and Peter have got it just right there. For the non-cleared example that we spoke about, as long as parties report their trade to the same SDR -- which I think is foreseen in the rule-making -- and they use a consistent internal ID, which is unique from their point of view, consistently over that reporting, then the SDR itself can be responsible for prefixing with it's own bit to provide the universal unique feature when reporting upwards to the Commission.

MR. MAGNUS: As long as we still get standardized market practice. Because the example I gave before, of that $100 million deal going to $75 million, in certain asset classes it's done one way, in other asset classes it's done another way, and we have to decide if we -- or certain firms will do it one way or another way. And we have to decide if we need to standardize that.

MR. AXILROD: It's not only across asset classes, actually. Within each asset class JP Morgan does it one way, and Morgan Stanley does it another way. And it gets -- (laughs).

MR. PRITCHARD: And I would think that you'll get pretty much the same value with a lot less expense if you let the SDR translate it, and don't impose standardization on every last end-user.

MS. LEONOVA: Okay. Then if, say, ID is generated on the SDR level, it has to drip down back to the original execution clearing and everything else.

Is it feasible from --

MR. MAGNUS: Right.

MS. LEONOVA: So how do you envision audit trail of individual books if you cannot track the SDR trail to, say, documentation of a particular counterparty in their books?

MR. AXILROD: That's part -- I mean, there's a little bit of latency, but it's part of the Act -- Act. In other words, when we get it -- I mean, Jonathan described it. When we get a trade in, when we send that trade back, if -- or if we get a confirmed trade in, when we send it back it has our identifier on it. We don't apply identifiers to information with unconfirmed trades, because you have this double-counting issue. You potentially get two legs of the same trade in with different identifiers, and then you have to make one go away once it gets confirmed. You can do that, but it's a technological -- more of a technological hurdle.

MS. LEONOVA: So you are talking about a system of mapping of identifiers?

MR. AXILROD: Of?

MS. LEONOVA: Mapping.

MR. AXILROD: Well -- that's correct. In other words, when you have a central identifier you can map it to the firm's identifiers. But once trades are confirmed, they go out -- unique identifier generation can be done pretty quickly, and then your acknowledgment back, you can have your own identifier attached to it. So firm's can use it or not, as they see fit. Most firms don't use it. Most firms use their own identifiers and it works fine.

MR. CUTIHO: As a technologist, I think it's not very efficient to have a central system just issue IDs, and every system in the chain, just go and contact it every time. I don't believe that will work very well.

I think if the goal is to have an identifier at different points in time and recognize them as events for a life-cycle, you could have multiple identifiers and perhaps the SDR manages the complexity of tying the different identifiers together to give you an audit trail.

But I don't think polling a system to get an ID every time is a very efficient approach.

MR. TAYLOR: Let me summarize a bit, and get feedback from you all am I summarizing correctly.

What we've got in the proposed rule is not a system where there's a central giver of all the swap identifiers. We called it a "first touch" approach. The way we've got it is, if there's a platform involved here, a (inaudible) or a DCM, they create the swap identifier.

No platform, but you've got a dealer or an MSP who presumably has sophisticated systems, and is going to be the reporting counterpart, the way the statute is set up, they create the identifier. And if it's end-users on both sides, where there may not be systems, the SDR creates the identifier.

I think I hear you all saying you like that, as opposed to -- you know, in terms of who's creating it. Am I right or wrong about that?

MR. MAGNUS: As long as there's no

intelligence in the identifier. And by definition, if a SEF or swap dealer is issuing identifiers, there has to be some controlling mechanism to either give it a block of identifiers they can use or whatever. And that immediately means that it has some intelligence in it, and someone can reverse-engineer based on the identifier.

MR. TAYLOR: The only intelligence, if -- I don't know whether you should call this "intelligence" or not. But if there is any built in the way we wrote it in the proposed rule, the proposed rule is saying that each of these "creators" of an identifier would get a small code that just identifies them. And that would be either the beginning to the end of the identifier itself. I mean, to be honest, we modeled that on Tag 50 distribution from CME where, you know, each clearing member can give Tag 50s, and once piece of the identifier says which clearing member. And that keeps them all unique.

I don't know whether you call that

"intelligence" or not. But is that problematic?

MR. MAGNUS: Well, it certainly identifies parties to the transaction -- potentially. So we have JP Morgan does a private transaction with somebody, and our little tag at the beginning, and everyone knows we have the number "5." If there's a "5" at the beginning of the transaction identifier, they know it came from JP Morgan, they know that JP Morgan did the deal.

So I guess part of it would be what is the -- how will that data be used, and what is the publication of that data?

If I assign that deal to somebody else, does it keep that same unique identifier, or "deal identifier" I'm going to use, instead of "transaction" -- or is the very nature of the fact that I'm now not in that, and now someone else is, is the transaction, and the actual instrument, you know, has a unique identifier?

Again, this goes back to the modeling issue that I said before, and we just have to be careful.

If only the SDR and the supervisors get to see that, probably less of a problem -- but not clear how the supervisors are all going to share this information, how widely spread it will end up being.

MR. AXILROD: Two things. One is, if you accept that as true, then the SDR has to create the identifier. You have to have -- if there's more than one SDR for a particular product type, you have to have some way of assuring that each SDR is producing unique identifiers.

And I guess I would say, generally, the program by which you use the reporting parties' -- remember, the -- right, the initial, in some ways -- right -- the initial trade, if it comes from a platform, that identifier is going to become irrelevant later, because it's really the dealer with the continuing reporting obligations.

I don't think it will work at all just to use the dealer identifiers. And the reason is, what we found is the dealers like to change them. And for various good reasons. There's a merger, there's something on. They're changing their internal systems, they're changing their identifiers. There's lots of reasons why dealers might want to change their identifiers. And we've actually had to put in a program that allows dealers to go in at will and change their identifiers. And the way we manage that is we have our own identifiers, so that's what keeps the audit trail.

So I don't really thing you can get away from the repository maintaining their own identifiers at some level.

MR. TAYLOR: So, if I'm understanding right, if you were redesigning this you would say, yes, if it's executed on a platform, the platform should create the identifier at the beginning. But if it's not, forget the dealers, the SDR should create the identifiers or all of the non-platform executed.

MR. AXILROD: I don't know that it really matters who creates it. I honestly don't think it does -- as long as the SDR can manage a single identifier all the way through. In that case, I would suggest it's probably easiest for the SDR to create it, because it's its systems that have to maintain this over their life. And, frankly, we could work with a lot of providers and say, "Here's how you have to give it to us," but it's easier and safer if we create them ourselves.

MR. TAYLOR: And then the other thing I thought I heard some consensus on was you all don't think the swap identifier is useful after a swap is cleared.

Am I right about that?

MR. CUTIHO: For a position-based clearing -- yes. After that point, it's just a position, and that position.

MR. AXILROD: I guess I --

MR. CUTIHO: Net long, net short. For trade-based clearing, we keep the trade open. But there are terminations. Once they're terminated, the IDs go away -- I mean, the swaps go away. A clearinghouse doesn't maintain trades.

MR. AXILROD: I guess I'm not sure I

agree with that. You have to -- when a trade is executed, you want to know whether it went to clearing or not. So you have to still -- you know, unless we get to the point, and I hope we do, that, you know, there's automatic clearing at point-of-trade.

But under most models -- not all -- that's not the case yet. And you're going to have to say, "This trade went to clearing here."

So what you really want is, you know, you have a cleared position that has an identifier. It goes up and down, but you really want to be able to say, "This trade went to clearing," and be able to sort of document that, and "This trade didn't."

MR. MAGNUS: But that actually reinforces, I think, exactly what Sunil said, and what I was saying earlier -- is that "transaction" is an event, and a "position" is a position. And in certain cases where you have position-based cleared instruments, you will not care about the transaction once it moves to cleared.

And you basically said, "I have the transaction. It gets me to cleared. But once it's cleared, I don't want to do continuation reporting -- which is the other piece of this NPR -- on a transactional level. I want -- the clearinghouse will want to only report on the position that, let's say, JP Morgan has, or its clients have, in, you know, in ID-6, settling in December, you know, 2016.

MR. AXILROD: Arthur, I think we're violently agreeing.

MR. MAGNUS: Yes, we are violently agreeing.

MR. AXILROD: I think there's, at that point there's no difference --

MR. MAGNUS: Right.

MR. AXILROD: -- between the contract and the position.

MR. MAGNUS: Right. But --

MR. AXILROD: They're the same thing. You don't have the independent trade anymore.

MR. MAGNUS: -- but for those things

that are maintained on a trade basis, that you can't get to a position, you're going to have to maintain some semblance of what that individual unique deal is for its life.

MR. AXILROD: All I was saying is, for us it's the same thing. It looks -- a position or a trade looks exactly the same to us. It's just a contract between two parties.

MR. CUTIHO: And another nuance I would like to add, post-clearing, is that there is a -- I think Arthur pointed to this before -- there is a swap identified at the point where it's affirmed or executed, but once cleared, it's broken into two. And we're both -- you know, with the CCP being the counterparty on both ends.

At that point in time, on an ongoing basis, you know, it would make more sense for us to report on a cleared identifier of that position, even if it is trade-based clearing, rather that, you know, the original execution. Because we have broken the connection between the two counterparties.

MR. TAYLOR: If a regulator is wanting to follow this "thing" over its life, and this thing gets cleared -- this may be another dumb question. But suppose we have a swap identifier that doesn't live very long. You know, you're following the life of this swap identifier for, you know, two hours or something, and then it says, "This went to clearing." Thereafter, in what you just said, is your ID would get replaced by a cleared-trade identifier, or whatever we call it. Is that a useful -- how would that work?

MR. CUTIHO: It's based on the purpose. So if your purpose is to track the life-cycle post clearing, then you want to know the cleared identifier. Because at that point in time, the CCP is the counterparty, not the (inaudible).

MR. TAYLOR: I think that would be the purpose.

MR. AXILROD: That's what happens today, both in clearing and in prime brokerage, where it's exactly the same process, where you have a lot of prime brokers net and compress with their counterparties. That's what happens.

When the CCP, or a prime broker, steps in the middle and becomes a counterparty to the trade, we get fed the identifier of the person who stepped in the middle. Sometimes we can attach that to a particular transaction as an assignment, and sometimes we can't because it's a many-to-one, so we just keep a record that that's what happened.

But if we know what the cleared positions are, and we have the clearer's identifier, it's just the same as a counterparty giving us an identifier. We just want to make sure that we've kept them all separate, and we've got the appropriate inventory.

MR. MAGNUS: Again, if I do a transaction with Bruce, the moment I move it to clearing, I no longer have a relationship with Bruce. That transaction does not exist. So there's no way you can -- or that deal does not exist in my records anymore. I now have a deal with -- I'll use Sunil -- with Sunil as the clearer, in that particular example. And Bruce has a position with Sunil.

Now, I may do another trade with somebody else that flattens my position out, so I actually have no position anymore. I'm not going to track anything, because those two positions are equal and offsetting and I'm done. I've assigned it, or whatever. Bruce may go add on to his position.

And this is not terribly dissimilar to what you're doing in the futures market today, where an FCM in the futures market is required to keep the transactions that led to the end-of- day position. But once you get to the end of the day, and everyone's confirmed and agreed the end-of-day position, they basically stick those in an archive somewhere, and will make it available if you ask them for it. But they don't report it anywhere.

And that's not a terribly dissimilar concept. And, again, it goes back to what are we trying to trace? What is it that you want to trace -- quote -- "through its life-cycle?" Do you want to understand what JP Morgan's position is over time and how we got there? Or are you trying to understand, literally, an individual transaction, and keep it alive much longer than it really is alive, for some purpose that, quite frankly, I'm not sure about?

MR. TUPPER: Yeah, and just, if I may -- if the SDR is providing the reporting function -- the SDR is mandated to provide reporting functionality to the Commission -- right? So if we're able to provide you that rolled-up reporting functionality each day, that gives you the net positions, I think -- you know, I kind of agree with Arthur -- I'm trying to struggle with what is the need for the Commission to know, behind the scenes, the audit trail, how it calculated that net?

Because if, you know, the SDR would be receiving the cleared positions from the DCOs, and then the uncleared positions would come in from the reporting entities, and then they could aggregate up these net positions for you --

MR. AXILROD: I mean, I think the regulators -- I don't think anyone's saying trying to trace a trade that you can't trace anymore because it doesn't exist anymore. But I think the regulators probably want to know if the world has changed from today to tomorrow, why that happened.

And whether you call that, you know, "audit trail" or whatever, you're going to want to know "This went to clearing," and you're going to want to make sure that it foots -- that everything that went to clearing actually results in the net position that the clearer is reporting, that sort of thing -- would be my guess.

MR. PRITCHARD: I think, you know, we run a rates repository (inaudible) where we get 3-point-something million live contracts in, and a lot of them are cleared. So, you know, we simply get a set of live contracts every reporting cycle, and some of them are cleared and some of them aren't. And if they want to look at something else, like the history, then they can construct that in some way.

But fundamentally what's being reported is a set of live contracts. And whether they're with a party and a clearinghouse, or party and a party -- but it does point up, for some of the sort of clearing scenarios that were alluded to over there, that these rules -- if you want to have a universal set of identifiers, will need rules for what constitutes a new ID being generated or not.

MR. TAYLOR: Let me ask both Pete and Raf -- because you illustrate the conceptual universe here, I think, on continuation data reporting.

Take a cleared trade. A swap was made. It went to clearing. And now, over its existence, it is being reported to you.

Pete, you're getting life-cycle events, if I understand properly. And Raf, you're getting snapshots.

What's in those, and who's giving it to you? Is it coming from the clearinghouse? I mean, walk through that.

MR. AXILROD: It depends. If the clearinghouse is doing its own life-cycle event processing and reporting it, then we're getting it from the clearinghouse.

Most clearinghouses -- I mean, not everyone at this table, but one of the two at this table -- oh, this is going to change -- is actually using DTCC's sort of trade warehouse to do it. So, in a sense, we would -- the repository, if you will -- would get that information from the warehouse.

For other credit events, we either generate it. For the non-standard trades -- which, by the way, given the last session, I believe include all the AIG trades, so I am wondering whether a category of "non-standard," and throwing everything into that bucket would help us much.

That aside, I think -- I mean, this will -- you'll see this in our comment letter. But I think you ought to be, repositories ought to have the flexibility of using whatever method is easiest and best for the market participants.

For the trades that are non-standard, it may be easier and better, you know, for us, instead of asking people to report the life-cycle events, to just have them report the snapshots -- especially if there's a lot of life-cycle events.

When there are not too many life-cycle events, you know, it might be easier to have people just report the changes, or report the life-cycle events.

So, right now, for electronically-confirmed trades -- which is what we deal with for credit, but not for equities, where we're sort of going to have to change what we do, because it's actually much more like what TriOptima does -- but for electronically-confirmed trades, I would expect that it's just easier for everybody to have the life-cycle events reported, because they're either going to be computed centrally, or they're going to be confirmed. They're confirmable life-cycle events, they'll be confirmed electronically, and they'll come in for trade. So they're not electronically confirmed, it may be that the only way you can get them is by snapshots.

But I think, I really think that repositories -- right? -- if one is good enough, and the other -- if both are good enough -- right? -- then the repositories ought to have the flexibility to use whichever they want to use. You know, if it's good enough for credit, it should be good enough for rates. If it's good enough for rates, it should be good enough for credit.

That's our view.

MR. PRITCHARD: Well, I'll just follow on briefly there. I think that the two -- you know, from the point in time of the state reporting approach to repositories, the two advantages -- and I think Peter was saying it's easier in circumstances, but we'd totally agree, is that it's more robust, because you're not dependent on anything that was ever previously reported. You simply get a full refresh. If somebody's got a zero position, they don't report. If they've got a non-zero position, they do report. And you just get that fresh, from scratch every day, so it's more robust and self-correcting.

And, secondly, you don't need any of these rules about the scenario under which the trade was done, or the history of how it got to be there, because you simply just report all outstanding positions every day. And it makes it a lot simpler to know that you're in compliance, and that you just report --

MR. AXILROD: I can't let that go un-commented on. I actually think it's a lot less robust. And the reason I think it's a lot less robust is because a snapshot simply won't tell you why something happened. It will just tell you that positions changed, and you won't really know was this a tear-up? Was this a compression? Was this an assignment? Was it a price-forming event? Was it not a price-forming event? Is it relevant to the market? What's going on?

So I think, I mean, that would -- I know we could go back and forth for a while. But I would take the opposite view.

MR. MAGNUS: I would just add one thing to that, which I think you've highlighted in both of your comments, and there's truth to both of what you're saying -- is that this goes back to saying we need to be objective-based in what we're trying to accomplish with the reporting and with the identifiers.

And, you know, I would argue from JP Morgan and from many of the industry groups that I sit in, we believe that the regulation should not stipulate the technical method for accomplishing the objectives. It should state, "Here's the objectives of what I want to see at the end of every day for continuation reporting," and the industry should figure out what is the best way to do it for that asset class, which may be the right way to do it today. And it may be that three years from now, you know, the industry may change, and it might be better to do it a different way.

And for CDS it may change and you want to do it a different way, also.

But it should be objective-based, and not actually dictated in the regulation, what method of reporting to the repositories you should use, whether it's life-cycle or totally placed. You should state what the objectives are, and we'll figure out how to meet those objectives. And we'll work with you to figure that out.

MR. TAYLOR: We've let this discussion -- because it was so interesting -- bleed a bit into the Q&A time. I suppose I don't feel too bad, because I think Pete's the only person in the audience -- and he's not in the audience anymore -- who asked a question. So we're probably safe.

But I will open it up. Is there anyone who wants to ask a question relating to any of this? There's a couple microphones out there if anyone does.

(No response.)

MR. TAYLOR: Passive investors. What can we say? What else do you think?

MS. LEONOVA: Okay, then. I guess we're going to have a 20-minute break for coffee. Thank you. I really appreciate your making it here.

MR. TAYLOR: Okay. We're ready for Panel 6, the last of the day, but some very interesting topics. I think everybody is here. Does everyone have their name tags? Yes.

We've moved, you know, into a different arena. Not identifiers now but there were interesting questions before us about whether there would be utility in some sort of master agreement library or some sort of portfolio data warehouse and we wanted to get more input about that. So that's the topic here.

And let's start with the first question we have, which is should a separate collateral warehouse system be established as part of an SDR to enable the systemic risk and prudential regulators to monitor collateral management and gross exposure on a portfolio level for swap participants? And if so, how do we do that?

MR. MAGNUS: So allow me to take a stab

at that. We've been talking about that. This is Arthur Magnus from JP Morgan.

One of the other hats that I wear though is co- chair of ISDA's Collateral Committee. And it's something that we've been discussing in that forum for a long time. And then in reading the NPR we got a little bit concerned because there are concepts in there that do not work at all in the bilateral space. So particularly, we cannot ascribe -- in the valuation data that you have, we cannot ascribe collateral to an individual transaction. The bilateral OTC space is on a contractual or portfolio basis. We have ISDA master agreements and CSAs primarily, credit support annexes, and they dictate what transactions are part of that portfolio and how that collateral is to move. And we provide a call to our counterparties if we are the valuation agent for collateral and they provide it to us on a portfolio basis. We reconcile the transactions that underlie that on a transactional basis but the collateral is pooled.

And for what I'm going to call exposure collateral -- not variation margin, and that is just because the term variation margin as we use it in the bilateral space is different than the draft definitions that you've provided and the way it is used in the future space. And I want to suggest that we need to keep them separate and be consistent. And that will be in several of the comment letters I think you'll get in the not too distant future.

So I'm just going to call it exposure margin when I'm talking in the bilateral space and I'll use variation margin for the cleared space. But for exposure margin, it generally is an offset for mark-to-market. So you could argue that the collateral we have you could prorate it among all the deals based on the mark-to-market but it's never an exact match because of the point in time. Initial amount, which is a separate amount that we get from certain counterparties, can be calculated any number of ways. Sometimes it's on a deal basis but frequently it's on a portfolio basis also.

So in thinking about that and thinking about the prudential and systematic risk oversight that the regulatory community abroad needs, the only way that you're going to understand what our true risks are and what our true counterparty exposures are is on a portfolio basis. Therefore, we would strongly support the creation of a -- I'm not going to call it a warehouse because that actually has other connotations and collateral, including physically where the collateral might be stored. So I'm going to call it a collateral evaluation repository. Just to be clear, it looks like other repositories and it's on a portfolio basis where it would have in it a variety of attributes, including the mark-to-market of the -- the mark-to-markets of the portfolio or the exposure that we have to each other on a net basis -- sorry, on a gross basis without any benefit of any credit support. And what is it after collateral, which is a specific type of credit support. Obviously, there may be other credit support which is very hard to -- it's very hard to put in there what is the value of a particular lien we may have on property, plant, and equipment, or whatever it happens to be.

So we would recommend that type of an approach. And then we could also provide for you what is the cash and marketable security collateral that is behind that. And if you want to know where it is we can tell you that also, which we think would serve the purposes of the systemic oversight that you are trying to accomplish.

So I'll stop there. We can talk about how you get that and build such a thing if you're interested.

MR. TAYLOR: We are but maybe let's go around on the first question first and then we'll come back to how do we do it.

MR. PRITCHARD: Maybe I can talk a bit there. This is Raf Pritchard from TriOptima again.

So we've talked in some of our previous

discussions about repositories, about the diversity of goals that have been set out for repositories, systemic risk monitoring being one but not the most important one, but an important one, but also market risk surveillance and enforcement, and realtime reporting. And one of the things that we've alluded to is that that's a different -- that's got a diverse selection of goals and as a software architect it kind of sets up some challenges as to which one you're going to meet when you design the repository. So I think, you know, what Arthur is describing there, a collateral valuation repository does definitely address the systemic risk goal much more directly.

And we've been providing an exposure management service for some time now whereby parties can exchange their data on their line item OTC swap basis and evaluations. And what that enables them to do for their collateral process is to reconcile the total exposure they have between each other early in the 24-hour cycles so that they can get to moving and settling the collateral and delivering the risk mitigation that that provides. And I think, you know, from what we can see we get 75 percent of the noncleared OTC swap live contracts through that service and the large number of dealers and firms on that. And you can see that if you took that and extrapolate it upwards a layer so that you aggregate it across the firm's positions you would get to a pretty good view of systemic risk. And so we, you know, I think it's a good approach towards systemic risk monitoring and it's a feasible one, too.

MR. WILL: It's Michael Will here from docGenix. I would agree with Arthur to the extent that a different beast is required as far as the nature of the repository here. We are definitely looking at a portfolio animal, if you like. Where I would slightly disagree with him is really in terms of the level of information that is stored within that particular repository. We're here today to discuss two central themes that have been enshrined by Congress in the Dodd-Frank Act, and namely these are transparency and accountability.

To achieve these objectives, it's my view that you, as regulators, will require access to information that's been reduced to data from three distinct but related document types. These are the confirmations, which (inaudible) very well, the economic terms. But we also need some information concerning enforceable master agreements and enforceable credit support agreements. The master agreements themselves include the legal and credit terms, and the credit support agreements contain the margin terms.

As I've watched you promulgate these rules, I think it's right and proper for me to perhaps be a little concerned that you are, in fact, missing an important part of the picture by focusing primarily on the economic data to the exclusion of legal credit and margin data. And as a result there's perhaps a risk that you might be unable to achieve the transparency and accountability objects of Dodd-Frank.

In short, if you only have access to the economic data, in my view you'll have a mere one-third of the information you need to evaluate counterparty credit risk. And counterparty credit risk is, of course, a key component of systemic risk. In any crisis or legal proceedings, in my view it's inevitable that the legal credit and margin terms enshrined in the master agreement and credit support agreement will take center stage. The events of the past couple of years are no exception.

Why is data from these legal agreements important? Well, it's really quite simple. They're the primary mechanism by which the parties manage and mitigate their counterparty credit risk exposure to each other. So I do believe it's a good idea to have a collateral agreement data repository and that swap dealers and major swap participants should be asked to submit data to it. Once you have this repository and you have access to the credit support data, you're going to have access to a number of key pieces of information. For example, is a relationship actually collateralized? I think currently data released by ISDA indicates that 22 percent of all bilateral relationships are not supported by collateral arrangements.

You'll be able to have a very transparent view as to the nature of the collateral the parties are using. You'll have indications of whether they're using cash, government or agency securities, perhaps any other collateral agreed between the parties, and sometimes in these agreements one of the parties will have the right to say I unilaterally decide that this is eligible collateral and the other party will have nothing to say about it. You'll learn about valuation percentages and haircuts, as well as minimum credit requirements for the collateral. Frequently collateral will need to be highly rated to be eligible.

Thresholds also are of great interest because they're used to calculate exposure. I'm referring here, of course, to independent amounts, thresholds, minimum transfer amounts, and initial margin. And this is important. These thresholds are extremely sensitive to minor changes in credit ratings and asset value declines.

Another important factor will be the nature of the relationship. Is it bilateral or unilateral? In some agreements only one party has the obligation to post collateral. You'll be able to find out rights of the parties to substitute collateral, valuation procedures and dispute mechanism, the rights of the parties to reuse or rehypothecate the collateral, as well as the scope of the collateral coverage. Indeed, it's not uncommon for parties to actually exclude transactions from the collateral arrangements. So I think we need to go a little bit further.

MR. PICKEL: Bob Pickel from ISDA. Far be it for me to suggest that there's not a wealth of information in master agreements and credit support annexes. (Laughter.) There is plenty, and it is very important, and as Mike suggests, at critical times it is, you know, in many ways the most important information.

I guess I would circle back to a theme

that we've been sounding in some of our comment letters. I think it's been sounded to some extent today. We certainly sounded it yesterday with the New York Fed and Sarah Josephson from the CFTC and other global regulators, and that is let's figure out what the critical first steps are here in terms of the information that you feel you need. Yes, I think there's a lot of -- the risk that get created, the exposures that get created are created through those transactions that are put on. And so it's important for you to have a window into that information.

It may very well be that it's important for the CFTC to have the kind of information that Mike suggests and we can look at that over time. I think most importantly you should have -- make sure that the prudential regulators are requiring their regulated entities to maintain this information. Obviously, make sure they've got master agreements in place and there are other master agreements. I think the LEAP one was measured earlier today. That they know what the, you know, obviously you have access to the master agreement. You know what's in that. There's a schedule to that. That's the structure. It's really those variations from the master that are most relevant in many things like cross defaults and the credit support annexes, various thresholds and triggers and things like that that are very important.

So I think it's important for the regulators to require the institutions to have that in place. And there can be -- there are mechanisms, and Mike I'm sure would be happy to talk about them, that may facilitate the more ready access of the entity to that information. And we'll see how that develops over time. But I guess I would, you know, circle back to the notion of phasing in. Let's think about what's most important, what the first steps are as we consider these other issues of master agreements and credit support annexes.

MR. TROZZO: Pat Trozzo from Reval. Just to extend some of the good points that have been brought forward here today, taking it up to maybe a little higher level first, is, as I read the rules, I believe there still needs to be further definition of what are the goals in the area of overseeing or measuring and tracking systemic risk. Like many things in our business, the devil is in the details. And those details will drive a lot of the issues that we're hitting upon here today and answer to some of the questions -- many of the questions here in this panel. So I think that first needs to be -- questions of if you are looking to what degree to measure it, right now potentially the rules are written that you're limited to more of a current exposure approach of looking at counterparty credit exposure as opposed to maybe some alternative means. So I think that definition needs to be further extended and clarified. And then that will help drive a lot of, if you will, some of the answers to these questions.

And then one other thing I'll add is there's the legal aspects of netting and so forth.

All the points brought forward here are correct and I agree but there's one other area what I would call more of the economic look of the exposure across an enterprise between one enterprise and another enterprise and looking at the overall exposure, that on the bilateral mass agreements doesn't necessarily cover it. There is a related party effect of multiple agreements that may come into play here and I call that more the overall economic look. So that also I think needs to be taken into consideration when looking at overall systemic risk and counterparty credit exposure.

MS. GOLDMAN: Hi. I'm Melissa Goldman from Goldman Sachs. I would also like to reiterate the points made by both Arthur and Robert in terms of the way we view the collateral risk and being at portfolio level and the need to be able to represent it that way to get the most accurate view of where the risks live.

I would, to Mike's point, I would like the agreement sort of data similar to some of the conversations that we had around the product identifiers in that the -- you could think of the masters and the CSAs as a -- almost as an exotic in how we need to model that data and represent that data. And it's not always at all straightforward in terms of how that becomes represented within a data model.

Additionally, I think there's, you know, a significant amount of interpretation that happens with that data and so to be able to sort of go through that -- the cost of going through that interpretation and then systemically representing it in a central repository would be a quite expensive exercise.

MR. AXILROD: Can I just make it unanimous in the sense that I think, you know, the obvious missing piece from what everyone had been doing was the collateral. You simply are not going to understand -- this may not be sufficient but you simply are not going to understand systemic risk or exposures unless you understand what collateral is held where and essentially parties' legal rights to it. So yes, I fully support making that fact transparent to regulators. I think that I also agree that on a bilateral basis, just as on a cleared basis, right, nobody collects collateral, whether cleared or uncleared, on a trade by trade basis entirely. They do it on a portfolio basis generally. So you're stuck with portfolio- based collateral reporting, which means that you're going to have to put together all the various valuations that you got in the individual repositories, assuming that they're complete and accurate. You probably ought to include in what's reported to repositories as maybe static data or something else, whether this particular counterparty or this particular group of transactions actually is done on a collateralized basis or not. But the important thing really is to compare the value of the portfolio with the value of the collateral. If there's a very big disparity, you know you probably have to make some more inquiries.

The other thing that you really need to

get a handle on is, you know, and this will come down to concentrations, but what collateral might a counterparty have to put up with very small movements in the market or a particular event. So if you've got -- if it looks like a party is going to have to come up with collateral upon the occurrence of certain events that they're just not going to be able to come up with. And this includes across cleared and uncleared trades. And you won't understand it unless you get the whole picture across cleared and uncleared trades.

You're not going to know whether a particular event will drive that party under and essentially, you know, cause the system to collapse. And in that event, the legal right to require people to post collateral isn't so important as the practical realities really. Is this guy extended to the limit of the amount of collateral he can post? Will certain sorts of events make it so it's going to be impossible for him to post variation margin? Should people be collecting additional either CCPs or bilateral counterparties? Collecting additional sort of initial margin because these positions are just too concentrated and you need to do something to protect yourself against the fact that when the position starts to deteriorate, generally this firm won't be able to come up with anything to provide anybody.

So I think you need to concentrate. A, we need to have a repository like this. You need to know where the collateral is and you need to do something to figure out, you know, these sort of exposure to events over concentrations that are going to make it difficult if not impossible for a firm to put up additional collateral.

MR. MAGNUS: I would just add to that that, you know, JP Morgan has spent tens of millions of dollars to build systems to take the data that we have in our master agreements and in our transaction and data repositories to look at our exposures in different ways to understand what happens when a counterparty gets downgraded or a trigger or something happens in the market to stress test the portfolio. These are very, very complex calculations and we make them available to our prudential regulators already on a regular basis.

I think this is incredibly important information and, you know, my first, you know, the first thing I would say is, you know. Dodd-Frank is going live in this year. If you're going to collect this data and do something with it it's going to take years to do. It's taken us years to build the infrastructure as we have to manipulate this data and use it effectively in our risk management regime. As has been pointed out in numerous other places, you know, a huge percentage of the market share -- I think the CFTC has quoted over 90 percent of the market share is consolidated in five dealers which are all subject to prudential regulation in this country. And we already share with those prudential regulators significant information about our portfolios and what happens in various scenarios.

My short term recommendation, certainly

until we can sort of what we're doing because I think this is important and I think Dodd-Frank says you should have -- you need -- we need to make sure this information is available in some form -- you should look through the Financial Stability Counsel, as well as working with the OCC and the Fed who are generally the prudential regulators through the -- I guess it's the memorandum of understanding (MOU) process that you have between regulatory agencies to share this information because that will give you a huge view of the risks that are currently being run in the market place.

I think that a master agreement library is probably, you know, an expensive definition of what is in Dodd-Frank. And quite frankly, I think we have so many fish we have to fry, if you will, in order to implement what we have to implement. We ought to focus on that first and then come back to this one at a later date because this one -- there's so many different ways you can use that data that just collecting it without understanding how you're going to use it I think would be difficult and just incredibly complicated and expensive. So we're going to put it into repositories and we're not going to use it because we can't figure out what we're going to do with it. And if we're not going to spend the tens and hundreds of millions of dollars you're going to have to spend to actually crunch it, then we're probably not the best use of our time at this moment in time. And it's probably something we should be coming back to after we move somewhere down the road. And I would echo what Bob said earlier and what we suggested to the ODSG yesterday through the IIGC, is that we need to move in incremental steps to implement this. This is a sweeping piece of legislation, as we all know, and it contains many structural changes to the infrastructure. And we need to work together and we need to do it in a stepwise fashion in order to implement this in a way that is not going to disrupt the market and disrupt commerce in the United States and potentially move jobs and business out of the United States.

MR. AXILROD: I would agree.

MR. TAYLOR: Before --

MR. AXILROD: Oh, sorry.

MR. TAYLOR: Before he does that follow-up, I thought somewhere in the course of that you shifted over from information about collateral to master agreement library. And I just want to make sure which one we're talking about.

MR. MAGNUS: I was -- I was particularly talking about the master agreement library. As I said before --

MR. TAYLOR: Let's save that one.

MR. MAGNUS: -- I support -- as I said, I support and JP Morgan supports the idea that we should create a single portfolio repository for looking at exposure-related information and the credit support and collateral against it to be very clear.

MR. TAYLOR: Okay. Let's -- let's beat one horse to death before we do the other one.

MR. WILL: Okay, I would actually disagree with that and the reason why, perhaps not surprisingly, is that the only way you can get a complete view of the exposure you have to a counterparty is a combination of economic data contained in the confirmations, the master agreement, and the credit support agreement. I understand the points and actually would endorse a phased approach. I think that's a good idea. But I think if you as prudential regulators want to be -- want to have advance knowledge of say a ratings downgrade hedge trigger that it impacts a particular party, I'm not sure with Arthur's proposal that you would actually have any advance notice. It would just happen. However, if you had access to information in the master agreement which required a party to post collateral, then you would. You would know it was coming.

MR. AXILROD: I would say amen. First -- first, I'm sorry, to Arthur. (Laughter.)

You've got to understand the collateral. Right? The last place anybody wants to be is, you know, big counterparty exposures and not having a clue what the collateral is. And I can just see, you know, Senator, I don't know why I didn't know but we didn't know. I guess my successor will figure that out. I think that's a -- I think you really have to get that first things first.

MR. WILL: I think some senators have actually been told, Senator, I didn't know.

(Laughter.)

MS. GOLDMAN: And just to echo Peter's point, I mean, you have to walk before you run and I think there's a whole slew of data that's out there that's going to be relevant from a risk management perspective even beyond the stuff that we're talking about here but it's really about where, you know, the core of the risks exist. And in fact, I think the industry is moving towards, you know, some of the biggest risks around portfolio reconciliations and dispute resolutions. And so where, you know, we see the biggest issues focusing our time and our resources around that rather than on some of the collection of this data which then would absolutely need to be, you know, invested in the collection and then beyond that modeled in a way, that would give meaningful kind of risk information.

MR. PICKEL: And I think -- and I realize for certain types of entities, the CFTC might become a prudential regulator. But of course, the most active participants in these markets are going to be the large financial institutions who will be -- have a different prudential regulator. And obviously, as Arthur and Melissa mentioned, you know, there needs to be coordination with them on this information.

You know, collateral is critical. Whether that just means that -- whether that means the prudential regulator has to know all the details or whether it needs to be confident through its oversight of the entity, that the entity has a good handle on that and that the prudential regulator has the opportunity at any time to find out what that position will be or is, I think that's a different scenario than kind of everything getting, you know, flowing into the prudential regulator. It's a question of making sure that the regulated entity has the methodologies in place, the practices in place to make sure that they are tracking it properly and in turn the prudential regulator can see that.

MR. PRITCHARD: Can I just comment there? I think (inaudible) swapped out a repository hat on again and it's interesting what Melissa said. She characterized the collateral terms as an exotic because there's a sort of walk before you run aspect to this which is, you know, we've heard about the exotics bucket today already and I think you really need to be sure that you're capturing all those trades in some detail and capturing the valuations of all those because if you're not doing that effectively, then knowing about the what if scenarios on your collateralization is really of secondary importance. So I think to Arthur's point about the phasing and putting things in order, then it's really important the repository captures accurate

-- the accurate complete population, exotic as well as standardized, and gets values on that on a continuation basis. Then captures the exposure at the relationship level and then can start looking at the more exotic sort of scenarios on the collateral.

MR. AXILROD: I guess I would never disagree with a statement that they swap data repository out have the best possible, most accurate, most up-to-date swap data that the regulators want to see. And I agree with that. But I honestly think that you could equally say without understanding the collateral the swap data information isn't very relevant either. This is one of those cases where you really need to have both and it's not -- you're not -- I don't think you ought to sequence the -- what Arthur called the collateral reporting repository with the swap data repositories. They ought to be, whether it's, you know, sequenced maybe by a couple of months but that's the basis. You need to see all that information.

MR. MAGNUS: No, no, Peter, I agree with that. What I was saying sequence was if you want detailed master agreement information.

MR. AXILROD: No, no.

MR. MAGNUS: I totally agree that the swap data repositories and this portfolio repository probably need to come into existence. There's relationships potentially between them that we could devise through interesting use cases. But they're going to be separated by whatever the practicality is of building them. We'll probably build them on independent tracks and they'll be done when they're done but it'll be around each other. It's the more detailed master agreement information that I was commenting on.

MS. GOLDMAN: And by the way, I was echoing that same comment. Okay.

MS. LEONOVA: Can we focus on independent tracks for collateral data warehouses and whatever else we are talking about right now? You can't keep names straight.

MR. TAYLOR: And let's do -- let's do

the collateral piece first. There seems to be passionate unanimity around the table that the answer to our very first question, should we have a separate collateral warehouse system, is yes, absolutely.

Well, the next question was, how should this be done? And I thought I was hearing in what some of you were saying the notion that there might be one SDR warehouse repository or whatever you want to call it here, that that information might not be sitting in each of the SDRs but might be sitting in one location. Obviously, the other possibility is that it sits in each SDR with respect to the swaps that got reported there.

MS. LEONOVA: It doesn't really matter whether it sits in the same SDR, not whether it's the same system or not.

MR. TAYLOR: Yes.

MS. LEONOVA: Whether we want to keep two separate systems and if they are separate how we link them or we try to merge it all together.

MR. MAGNUS: So logically -- forget

about where it physically resides -- there should be one -- as we will probably end up with one hopefully asset class repository for each asset class, the regulations, the draft regulations provision that we might end up with more than one, that information cannot be housed with the asset class information. It needs to logically be kept in a portfolio that cuts across asset classes because the information is across asset classes. The portfolio I described before, which I did not put that adjective on it, is across asset classes. The ISDA master agreement and the CSA cover all asset classes simultaneously between two legal entities. So therefore, it needs to be in a separate place.

Now, whether or not we have multiple repositories that have this information, that could become inefficient and then you have to figure out, well, which one does it go in and who is doing the reporting, which are other things we'll figure out over time. There are probably advantages when you start talking about that, at least for the large players, to have large players put their entire portfolio in it and not have, for example, I'm going to use Goldman because Melissa is sitting next to me. If Morgan has -- if one Morgan entity has a portfolio with Goldman to say that Morgan is always going to be reporting it actually probably makes some sense for both of us to report it from our vantage point because that actually provides with the biggest players some useful information to you about whether or not we're valuing those portfolios roughly the same.

MR. TAYLOR: No, I have had prudential regulators say to me it's interesting, it's useful to know that AIG, just to take a random example, thinks this collateral is worth, you know, $100 billion and the counterparty things it's worth $10 million.

MR. MAGNUS: Thing that that I would -- and I would absolutely agree with that. The other thing that I would say is the biggest issue that we had around transparency with that situation was the fact that there was a longstanding dispute of a very large size that was not transparent to the supervisory community. As we told the -- as we told the ODSG yesterday, we believe that we've actually solved that through the commitments process of providing reporting of large disputes on a regular basis to our prudential regulators. At least now they have the tools to identify that. We also have portfolio reconciliation and a few other tools that are coming out in your draft regulations also that would prevent that type of situation. But I absolutely agree that you would want to see both sides of that if you can. And obviously there are certain counterparties in the market if I'm dealing with a smaller corporate, for example, that probably would not be reporting into that portfolio repository. It probably doesn't make sense to force them to do that to be a player.

MR. TAYLOR: Two follow up questions to that. One of them is I take the point. I think I thought some agreement to this that this goes across asset classes. And I think it's obvious that the statute at least permits a repository for a single asset class. I mean, it doesn't say that repository can't do multiple asset classes but it doesn't say it has to either. Does that suggest then this really needs to be in a separate place as opposed to each SDR?

MR. MAGNUS: Again, to the point I started to answer Irina's question is it needs to logically be separate from the asset class repositories. I mean, if there was one uber repository that we had globally that covered the entire derivative world, that's a different story. That's not going to happen under any scenario I can think of.

So we're going to have asset class specific repositories. We'll probably have multiple repositories in an asset class as we start going international. But if a prudential regulator wants to see, and particularly a systemic regulator wants to see what JP Morgan's position is to any other counterparty, we should be reporting that somewhere so that our prudential regulators can see that at a summary level. We provide that information today by the way and they have access to that information. They have to come to us to get it and they have regulators and supervisors onsite who go into our systems on a regular basis to see that but if they want to see it in aggregate then you need to report it somewhere.

MR. PICKEL: I think that having the repository -- I'm not going to contradict my members here. If they want to have it, they'll build it, they'll make it, and they'll make it available to the regulators. But ultimately, that can't be any substitute for the prudential regulators really getting in there and understanding what the collateral positions are, what the policies are. That's what I would get back to. The repository may be a good first look to see what the big picture issues are but if the work's not being done at the regulatory level in the institutions, then the repository is not going to be all that useful I don't think.

MR. MAGNUS: And Basel II actually supports that because we have to actually do some fairly complex exposure calculations that take into account all of this information in order to produce risk graded asset requirements under Basel II. And our prudential regulators are the ones who have to sign off on the models that we're actually using. And so they are -- I can assure you they are spending a huge amount of time digging through how those models work and what information goes in the controls over those models and everything else. So one would hope that we're doing a reasonably good job calculating in a way that the supervisory community is comfortable with so that the results that come out of that would be of use to the various regulatory bodies and we would not try to replicate those calculations externally. But again, reporting it could add value. And if you're going to want that information, I can understand many reasons why you might want to see it in a data store so you can look across organizations and not only see how much exposure JP Morgan maybe has to a particular MSP or an end-user, but how much five other dealers have and see it in some aggregated way. That becomes useful in a repository. But short of that I would go with Bob's approach, which was the prudential regulation approach.

MR. TAYLOR: Let me ask all of you, are you thinking that this information needs to sit at least in a separate system, as opposed to, you know, this is (inaudible) all the regulator assets?

SPEAKERS: Yes.

MR. PRITCHARD: Yeah, I think if I can just go back to your original multiple repository question, I mean, in order for parties to agree their exposure between each other which they then subsequently collateralize, they submit that live contract on a cross asset class basis to a single venue, exposure management service, that then reconciles them.

And secondly, as both Arthur and Melissa allude to, you know, collateral is not really meaningful at the transaction or life contract level in OTC derivatives. It's only really at the relationship level. And so the fundamental, you know, the trade repositories are at the trade level and then this collateral or this exposure view would then be at the relationship level. And that would be -- there's some advantages of that because it, you know, as we've seen there are multiple repositories and this would pre-aggregate that.

MS. LEONOVA: May I? I didn't get (inaudible) discussions on Panel 4 and 5. Does it mean that we want to ultimately track the master agreement identifier rather than transaction identifier itself and link all individual positions (inaudible) master agreement?

MR. AXILROD: I guess eventually but I think you'd want -- I'm sure this thing is going to evolve but you need to stop right -- you need to stop the bleeding. And you know, so far not much of what we've been talking about actually affects the AIG type of situation which was the largest single contributor of TOC derivatives to the 2008 crisis. And this sort of thing does. Right? If you have -- if you have the positions and if they get very concentrated, which means that the concentrated positions are sort of dominating the portfolio, if you will, to relate it back to the other discussion, the exotics are now a large part of a systemically important firm's portfolio. The next thing you want to know is what's the valuation. Do parties agree and is there collateral? And I guess the only -- the way to do that is by having a separate collateral reporting portfolio. I understand that supervisors need to do their jobs, too, but I agree. I'm sort of a belt and suspenders guy. I'm not going to rely on one thing to prevent the system from going under. Yes, it's very important that prudential supervisors make sure that firms do the type of risk management they're supposed to do but I'd also like to have the suspenders as sort of an early warning system. And it's positions concentration values collateral, and if you see those getting out of whack you've got a problem.

MR. WILL: I actually think --

MS. LEONOVA: I'm sorry. ON what level are you tracking collateral? You have to tie it to something. What are you tying it to?

MR. AXILROD: Oh, you're tying it to the portfolio because that's what the firms do. So, but it's just going to be the case if you have -- if you've written $80 billion in notional exposure to mortgage securities and the rest of your portfolio is, you know, $10, $20 billion, that's going to drive your collateral requirements. And it's just because the firm's position is very concentrated. So you'll be able to -- it doesn't have to all be tied together perfectly in a nice, you know, in an all singing, all dancing model base system to get some use out of that. I think at a very rough level you need the basic data. And as long as you have the basic data, some of the things are just going to pop out at people. And that's the stuff you'll get, you know, and that's likely to be the most obvious stuff that's going to create systemic risk. If there's stuff you won't see unless you apply a very exotic, fancy model, okay, so you'll miss it. What you don't want to miss is this simple, obvious stuff that -- just some basic informational sort of throw in your face.

MR. WILL: Irina, I actually think you do need two new categories of identifier. One for the master agreement, one for the CSA.

MR. PRITCHARD: I think if it's helpful, Irina, in our exposure management service, what corresponds to the relationship most directly is an agreement. That's -- when parties set up something that they're going to resolve the dispute over the exposure on, often the relationship that they're modeling there is an agreement, some kind of collateral agreement.

MS. GOLDMAN: Yeah, I mean, I would agree with the points that you need to be able to roll up your transactions under the appropriate agreement and then apply the appropriate collateral to that and sort of bring that altogether. And I think you also probably want the ability to then look at, you know, maybe separately the broader uncollateralized exposure in which case you might go back to the SDR to, you know, to pull that using again a common identifier to bring that picture together.

MR. MAGNUS: But the definition of an agreement in that particular instance, Raf, is just the fact that, let's say Morgan and Goldman again, using that example, have agreed that we have an agreement and we're telling you that there's an agreement there. It's an ISDA Master and you don't have any other information about that agreement.

MR. PRITCHARD: Correct, yeah. For the avoidance of that, that is true.

MR. MAGNUS: Yeah. And, you know, the minimal amount of agreement you need to know is this particular Morgan entity, this particular Goldman entity, this is the agreement name and this was the date it was executed.

MR. PRITCHARD: Yeah, I was just saying that's what it corresponds to.

MR. MAGNUS: Yes.

MR. PRITCHARD: We don't have any data about it.

MR. MAGNUS: Right. And that's the important thing. And that is how we actually pull portfolios together today, and that does work.

MR. TROZZO: You know, again, if you look at it you're going to have, you know, we're going to take, without mentioning names, say Counterparty A, Counterparty B. Their whole portfolio is going to be spread across the relative SDRs. Whether there's multiple SDRs in an asset class or one in each. But they're spread across asset classes and multiple SDRS. Okay, so first of all, the first step is you've got to find some mechanism and rule to net those. That's driven by an agreement. Okay? So there has to be some connection there. I agree with Arthur that this gets very (inaudible). It takes years to build. No doubt about that. But maybe there is some phase-in approach or first layers.

MS. LEONOVA: Okay, what is a phase-in approach? That's what we're trying to get out of you.

MR. TROZZO: We'll come back. But you have to connect those because there's been some discussion on whether -- I think you need not only the transactions with the SDR and some rules too net those which are driven by the master agreements so you're going to need something from there. And it will then connect to a CSA which should be housed in a separate warehouse. That's what we all agree. You need all those pieces. Without all those pieces, regardless of whatever phased-in timeframe it is, you will not have your counterparty credit exposure. You will not have a feel of systemic risk. So you need them all. And the phase, you know, how do you phase it in? You know, that starts getting into some of the other points below regarding the technology and timeframes.

MR. WILL: I think you could have

actually parallel phased approaches for the CSAs end also. I know I'm touching on ground I shouldn't really go to in terms of master agreements, but the master agreements.

MR. AXILROD: Can I just very quickly, in terms of phasing in, I know you sort of want to have the roadmap of where you're going but I think to try to figure out what the end state is going to look like now is just going to get people sort of running around in circles. And I would say, look, this is the most important thing is that we need to get done in the next year, you know, before year end or the first half of 2012. And just fair warning, by the way, another shoe is going to drop but we need to get some -- we need to get some experience with this. And I would say given, you know, the industry is just now trying to deal with -- because they've been dealing with SEFs and clearing and everything else. They're just now sort of waking up to, oh, we've got all these reporting requirements and it's a big technical challenge. And they'll do it. I mean, everyone's determined to do it but it's a technical challenge to get it done. So I think for really through the middle of 2012, if you can focus on getting accurate trade data into the repositories and accurate data around, you know, collateral collected under CSAs into another repository, that's going to be very difficult to do but that will be a huge step forward in terms of, you know, regulators' ability to oversee the markets and their counterparties. And I think a lot of good would come of that.

MR. TAYLOR: Let me ask, I think you all are envisioning, and, you know, Bob is sitting here on behalf of his members and a couple of the members are here, you know, who will have to do a lot of reporting, counterparty reporting. It sounds as though this vision would mean we are adding a reporting stream for the reporting counterparty. You have to report the transaction data, you know, that's required for the swap to an SDR and you have to report to some collateral SDR let's call it, collateral information. Am I right that's what you're envisioning and can that be done?

MR. MAGNUS: Well, I'd actually take a slight step back. Again, I use the words "collateral" and "valuation repository" originally and intentionally because what you're looking at is the exposure under -- is the master agreement or any other master agreement. And first of all, not everything is collateralized under it, so the first question that you want to ask yourself if you're looking at systemic risk is what is the exposure, you know, that JP Morgan has to AIG if AIG were to default? I'll use AIG as an example. If we did SpotFX with them or we do certain transactions with them that are not covered by the CSA, they would never be in a portfolio just looking at collateral or the collateralized risk. So that's sort of one piece of it.

So what you really want to understand is what is our exposure to the counterparty, that's question number one. And then what is the amount of exposure under the CSA and what is the value of the collateral against it? You may additionally want the -- what is that collateral made up of, so you can look for other concentrations and things like that in the collateral, which, to me, that's a second order. Let's just get the first bit I just said first.

The linkages is going to be some kind of a portfolio identifier, which will link to a legal agreement. But we have to be careful what legal agreement we do and we want to keep it very, very simple in its initial incarnation. But the reason why we're recommending this is as a practical response to what you have in the NPR where you're asking for valuation of collateral data because you believe you need that for your supervisory functions. And what we're suggesting is we would rather do it that way in a single repository where we can give you it on a portfolio level, which is a logical way to make sense of it, than a transactional level where we would only be able to do it arbitrarily and we can't provide that information in a useful manner. So to us, we're trying to help you get to a solution that we think is a practical solution to achieve what you want, but we're also trying to say yeah, but don't make us give you information at a transactional level that doesn't make sense.

MS. LEONOVA: Okay, going to portfolio level data, do you propose universal reporting of the portfolio level or only on the levels for dealers and MSPs?

MR. MAGNUS: I'm sorry, when you say as a swap dealer would we have to report on all our counterparties or are you saying --

MS. LEONOVA: No, I'm saying --

MR. MAGNUS: -- everybody who plays in the market?

MS. LEONOVA: You're here talking about portfolio valuation, (inaudible) house, whatever we are calling it right now. Are we talking about universal reporting requirement of all counterparties or are we talking about reporting requirements imposed only on swap dealers and MSPs who actually have large portfolio exposures --

MR. MAGNUS: I would certainly recommend that only sophisticated players would be able to do that. Many of the smaller players rely on their dealers to actually provide that information to them anyway, and to impose on that portion of the market the technical requirement that they go and provide that doesn't, to me, feel like it makes a lot of sense. I would --

MS. LEONOVA: How much market do you believe it can recover?

MR. MAGNUS: Well, we -- if you get -- if most of the deals today are between a swap dealer and other players in the marketplace, there's very little -- there's very few deals that I'm aware of between -- and maybe Bob has industry data that I don't have privilege to, between let's say in between MSPs or between MSPs and end users by using your definition.

MR. AXILROD: Outside of commodities.

MR. MAGNUS: Outside of commodities. And again, I'm talking derivative transactions, not physical. So even commodities I would argue that, when you talk about derivatives, they're generally between executing brokers or dealers.

So I think if you had the dealers doing the reporting, you would capture the vast majority of the transactional data, most of the risk. If you discover through the trade repositories, which will have all of the transactions and all the positions that parties have, that there are players who are doing deals with each other that are not reporting to this portfolio level collateral and valuation repository, then I would suggest they might be more systemic than they've let on to. Maybe they should be registered as an MSP, and that's a different dialogue which you as a prudential regulator can go and have a conversation with that about.

MR. TAYLOR: Let me do a follow-up to that. Are you all suggesting, you know, as part of the continuation data that we wanted to get over the existence of a swap, we were asking for valuation data, are you suggesting that all of that valuation data reporting ought to go into this collateral SDR rather than into the regular SDR, if I may call it that? You know, unpack that. And then you might also talk about, I mean, you know, the statute has this setup where one counterparty reports, it's not two. And I heard you all saying, you know, it'd be nice to know the view of each counterparty about what the collateral is worth. How do we deal with that?

MR. PICKEL: Yeah.

MR. TAYLOR: Go ahead, Bob.

MR. PICKEL: Well, I was going to say that I think, you know, realistically, you know, once the trades are on, they're being managed, as we've talked before, as part of a portfolio, so it really is this portfolio level information. Because you're going to have thousands of trades potentially underneath the master agreement, governed by the master agreement, and they're all going to be, you know, fluctuating in value based on market prices versus the price of the contract. You're going to be looking at your exposure across all those on a netted basis. You're going to be calling for collateral on that basis. So, yes, actually I think it probably is far more relevant to be looking at that valuation at that level than to be valuing every single contract as contemplated.

MR. PRITCHARD: And I think, you know, from the current industry practice, a huge amount of the industry is currently comparing their exposure and reconciling their values of the live contracts. If, you know, we are piloting some parties who want to reconcile the collateral held in respect to that is a newer addition to that service. But we're seeing 6 million live contracts on a regular basis being -- having their values reconciled centrally.

MR. WILL: I guess what would be interesting actually is to see whether the parties agree in terms of the events that trigger the obligation to post collateral (inaudible). I mean, it's something that doesn't happen in the legal agreement area, so to speak. With confirms, you know, you have a reconciliation agreement between the parties, but currently you have -- there's not very much translation of the text into data, so it's very difficult for the parties to actually reconcile their particular views.

MR. AXILROD: I guess I would take -- I know I'm owned by the community generally, not the banks, but the banks, the investment managers, and so forth and so on, and the custodians, but I'll risk taking a somewhat contrarian view. I'm just going to note that it's not incoherent to report trade level valuations or position level valuations, if you will. That's not incoherent. You know, individual positions are valued. There's a lot of them and, as Raf noted, a lot of people report them anyway to various service providers. Banks report them to their customers, so forth, and so on.

You can't deal with collateral that way because collateral relates only to the entire portfolio. So let me just leave it there. It's certainly possible to, you know, sort of report market-to-market for each position that's in a repository. I think there's a lot of use for it. I don't know how -- I'll let others address, you know, whether that should be phase one or phase two.

MS. LEONOVA: If I may follow up on your comments. So before you mentioned that when there is a difference between collateral and net exposures, then we have a problem. If you do a de-evaluation on a transactional level, what is the margin of error when we start to pull it all together that gets exposure?

MR. AXILROD: Well, I was going to say, you know, you've got the exact same problem with cleared transactions, right? Cleared transactions are valued daily, but the initial margin is collected on a portfolio basis. It's the same thing. And if you want to start looking, when you see something alarming, the first thing you're going to ask yourself -- and you can either call someone up or it could be right at your fingertips -- is, wait, there's a big disparity between the portfolio value and the amount of collateral. The first thing you want to look at is what's making up the portfolio and what's the value of the pieces of the portfolio?

MR. TROZZO: I would just comment that -- this is Pat Trozzo from Reval. If you just look at and have data reported on the portfolio level, yes, collateral, I agree, is posted on a portfolio level. But then the Commission or the users of this information would lose some data, would lose some information. You talk about, you know, for an example looking at potentially concentrations. What caused this net exposure? You might find in many cases you could have 1,000 transactions between 2 dealers and you might find some small fraction of those make up 90 percent of the exposure. You would lose that if you don't have it on a trade-by-trade basis.

MR. TAYLOR: So I think I hear you all saying leave the transaction level valuation reporting that we asked for, add collateral reporting to a collateral SDR.

MR. PRITCHARD: Because one opportunity

there, David, is that you can cross-check between the two. You could see some of the exposures at the transaction level and see the alleged total exposure on the relationship level.

MR. MAGNUS: I think, again, you have to look at holistically how all these different rules fit together. And the way the SDRs are being defined is they're one-sided reporting, not two-sided reporting, the way we report to you today, Raf. And so the valuation -- and there's another NPR out there on portfolio reconciliation which the industry very much supports. We've been pushing portfolio reconciliation for a while to get at the disputes that underlie that.

We volunteered and we have already delivered information to supervisors where there are disputes in our portfolio. The regulations will probably require us to do more reporting on that. Our prudential regulators are going to be checking that we are capturing that information because it's now enshrined in Basel III. So there's a whole bunch -- a panoply of things to make sure that these portfolios are accurate and tie-up. The question is what are you looking for?

And I want to be careful when you talk about collateral, Peter. There's the exposure, the net exposure, between two parties on a total portfolio basis. There is the gross collateralized exposure, i.e., the exposure I would have to you, Peter, without any credit support. And then there's the amount of collateral supporting that agreement. And there may be a difference because of things in the agreement or whatnot.

The point you're making, which I think is really the valid one, banks take risks every day. That is what we're in the business of doing. The question is, are we controlling those risks? Are we managing it well?

And a certain amount of risk is okay and you want to have the information available to prudential regulators so they ask the right questions. Had this type of reporting that we have today without these repositories been in place back a couple of years ago, the prudential regulators would have said, my god, you have a huge exposure to AIG, tell us more about it. And we would have had a very interesting conversation and they would have started learning all kinds of interesting things that they wouldn't have been very happy with. And they would have had much more visibility on that long before it became a headline.

So I'm in total support, but I'm not sure you necessarily want that market-to-market information on a transactional basis. I don't think you need it. I do think we do need to do reconciliations of portfolios, which we are doing and the industry supports. And I think the most important thing you need to look at from a systemic point of view are the big numbers and use that to drive the conversations that you have with the entities that you're regulating.

MR. AXILROD: I guess it depends on how quick a reaction that you want, right? I think that, you know, the more -- if it's not too hard to provide those marks, and it must not be because you're providing them today, you know, I guess the question is, that information could be valuable because you could relate it to, you know, concentrated positions or so forth. And I guess, you know, whether you need it or not, it's likely to be a building block to something else, maybe you could do it later. All I'm saying is it's not incoherent to ask for it at the position level.

MS. GOLDMAN: Yeah. The only thing I would argue is, you know, to the extent that it ends up being needed based on sort of triggering --

MR. AXILROD: Yeah.

MS. GOLDMAN: -- a conversation that that information should be deemed readily available, you know, to the regulators upon, you know, an inquiry, so.

MR. AXILROD: Yeah.

MR. WILL: Are you saying that they have to come to you or you go to them with the information?

MS. GOLDMAN: It would be them coming to us.

MR. WILL: Okay.

MR. MAGNUS: We go to our regulators every day and give them tons of reports about our positions, our large positions, and a whole bunch of other reports that our prudential regulators get on our credit exposures. So they have that information available.

MR. WILL: And I think what's interesting here is there's much talk about exposure, but what I'm particularly concerned about having been a lawyer is potential exposure. You know, what's actually going to happen just around the corner? You as regulators really need to decide what level of interest you have in that.

MR. TROZZO: Well, if I may, that's what I was trying to comment on before, defining what you mean by looking at and monitoring and measuring systemic risk. What is being put forward currently in the rules is can it lead to a measure and monitoring of systemic risks? But as it's written right now it's limiting to current exposure and not saying something like "potential future exposure" or some other method. Not that I'm necessarily saying you have to do that, but it is -- right now you are limited to one specific form.

MR. MAGNUS: But I would just -- again, I'm not sure Dodd-Frank actually suggests that we would be required to report potential exposure of these data stores. We do calculate it, we do provide that information to our prudential regulators already in numerous forms and it is reviewed again as part of our capital calculations.

MR. AXILROD: No, Arthur, I agree. And, again, I'm not suggesting it. All I'm just pointing out, as currently written, you are limited to this one form of exposure. That's all I'm saying.

MR. PICKEL: And I would get back, I mean, I don't know the -- what people here may mean by "potential future exposure," that, you know, typically in the Basel context means some estimation of how prospective market price fluctuations may affect your exposure. Mike's talking about, you know, what's embedded in the contract that given circumstances might, you know, spring to present an issue. And there I think it's important for -- again, I get back to the prudential regulators. It's important for them to understand and to grill, frankly, their regulated entity, where do you have these types of triggers? Where do they exist? Who are they -- which counterparties are they with? Where are these areas of potential concern? So that the regulator's alerted to where those things might pop up in the future.

MR. WILL: I would prefer instead of the term "grill," perhaps "learning." (Laughter) I mean, a serious point here, there is actually a lot of expertise available around this table in terms of risk management, et cetera, and I would encourage you to learn as much as you can from everybody here and also from the law firms, frankly, because they're looking at these as users as well.

MR. PICKEL: I mean grill. (Laughter)

MR. TAYLOR: Let me ask one more question as quickly as we can about collateral warehouse, and then just have to ignore the other horse. We'll shift over to master agreements before we're done here.

This was the last question on the list, but in this picture of a collateral SDR that we have begun to talk about, are you all envisioning that it's doing anything more than having a warehouse function with this data? And then the question was, if there's more, does that transform that warehouse into some sort of SRO?

MS. GOLDMAN: I would just say I think part of the reason why we're kind of labeling it as opposed to a "warehouse," a "repository" is because the expectation that it's not doing a whole lot more than just the sourcing of that --

MR. TAYLOR: Okay.

MS. GOLDMAN: -- and just the ability to

aggregate, you know, across the balances that end up being in there.

MR. TAYLOR: So you're not seeing it as an SRO.

MS. GOLDMAN: Right.

MR. TAYLOR: It's just the data's there and the regulators can't use it.

MS. GOLDMAN: Yes.

MR. AXILROD: I would say no. You know, it's there. It's going to be a big task to get it there.

MR. MAGNUS: I also think there are enough systemic and prudential regulators and, for that matter, as we do push-out under Dodd-Frank, there'll be other SROs and other bodies who will be looking at that data and have an interest in that data, who will look for concentrations and other issues that they might find in that data. So I certainly would not suggest that the repository -- and I would please encourage you to change the terminology and not use the term "warehouse" and use the term "repository." And I would also suggest that you don't just call it "collateral." What we're really talking about is "exposure and collateral" or "valuation and collateral" or something along those lines because it is more than just collateral information that we're suggesting you put in there.

MR. TAYLOR: All right. Let's shift the discussion -- we have a bit of time left -- to the master agreement issue. Should there be a master agreement library of some sort? How should we handle -- you know, what information about master agreements do we need and how should we get it?

MR. WILL: Lots. I think it's critical that we do actually have a master agreement library. We'll come on to whether it actually should be combined with a collateral library. But the master -- credit report agreements and confirmations constitute a single agreement. And we're coming up to the Oscars, so I'm going to give you a very interesting analogy here.

In many ways, an ISDA relationship is like a Hollywood movie. It has a script, it goes through many drafts, it gets heavily negotiated. There's a cast of characters, and there's one or more events that can place these characters into jeopardy and, of course, there are consequences that flow from these events. So let's take a look at the cast of characters. It's more than just the party executing the contract that you need to be concerned about. I characterize these guys really as the parties in the leading role.

There are characters in a supporting role that can actually trigger a default or some kind of event in relation to the master agreement. These might be a credit support provider, a guarantor, or someone providing a form of security. And also this category known as "specified entities." These are third-party entities, frequently established in different jurisdictions, whose fortunes are closely correlated to those of the contracting party itself. Now, there might be no specified entities for a particular agreement, but there can be sometimes four or five specified entities and it can go even broader to all affiliates. So if you're a large organization it might that a default on payment of a bond will trigger some pretty significant consequences for you in terms of the master agreement.

The point to take away here is the relationship of necessity establishes a complex web of interconnectedness that can extend to entities other than the contracting parties. So if you're going to effectively monitor systemic risk, then you need to know with a great deal of specificity for any given relationship precisely who is connected to whom. Access to master agreement data will provide that particular aspect of transparency.

MR. PICKEL: I guess I'd have to say I agree with everything that Mike says and I disagree with his conclusion. I don't know -- I don't see why the need for all that information -- and it is very important information and every one of these institutions who engages in derivatives activity ought to be charged with making sure that they have that information, they understand all those details, but I just don't see why that has to be put into some central repository. I don't know what that gains the system. I don't know whether that gains the CFTC in its oversight. But certainly, again, grill or hold people to the charge, they need to have that information and they need to be able to access it and they need to use tools that may be available to them to facilitate the access to that information. I just don't see why that leads -- the need for that leads to a central data repository of master agreements.

MR. WILL: I mean -- sorry. There's currently a proposal for an affiliate's database that's going to be accessible, I believe, on a private basis. If you maintain that affiliate's database, if everybody has to report all their affiliations, then you might actually get an inaccurate picture because you may assume that everybody is associated with a particular master agreement when, in fact, it's just a small subset of entities that are associated with that particular master agreement. So if you really want to understand who's connected to who, I think you do need to go to that level. But I do take Bob's point about the effort involved in that.

MR. TAYLOR: Since there are two views about that let's explore a little bit. If we need information about master agreements, but we assume for the moment in arguendo that it's too costly, too burdensome to put it all into some master agreement SDR, how do we get that information? Does master agreement information somehow need to flow into a regular SDR with the transaction information or what?

MR. AXILROD: I would say no to flowing that in. That's even harder, I think, to have it flow in with the trade information. Because typically today, the way trade information works when it's submitted to a repository or a confirm engine is that one agreement is referred to, sometimes it a master confirmation agreement, sometimes it's a master confirm, it's whatever the lowest level master agreement is. That agreement actually refers then to -- you can chain then through agreements to find all of them.

But I guess I agree that, you know, when you want -- when something else is ringing an alarm bell -- you want a pretty good basic alarm system -- when something else is ringing the alarm bell, you know, the market participants should be able at a moment's notice to tell you here's how it works.

MR. PICKEL: And, again, I think that that's certainly true, you know. The question's whether that's a before the fact or an after the fact -- or not the fact, but is there a way to get that information when you need it? And do you rely on the fact that you're regulating these entities and you've got requirements for them to have the procedures in place, to understand what their exposures are, and have the details that they could access readily, quickly when you ask them for it about what their contractual arrangements are?

MS. LEONOVA: So say it's nice to have, but it's not critical.

MR. PRITCHARD: Yeah. As a repository, I think, to agree with Peter, we wouldn't see ourselves as a great channel for you to receive master agreement information. I mean, as Melissa characterized it as an exotic, it's very hard to summarize sort of the primary terms of a master agreement. You either have the detail or you have nothing at all. And as a repository it's kind of far from what we're managing.

MR. TROZZO: But I would think at least at a minimum level, you know, one of the first keys of the agreement is to decide with all this data across the various SDRs between two counterparties is it netables and not netables? What is netables? Those little first level definitions are in the agreement. So at a minimum you need that, so you have a roadmap to decide what do you -- and it's tracked against each other.

MR. MAGNUS: But, again, we're providing

the portfolio level netting --

MR. TROZZO: Well, that's assuming if you provide it on portfolio level.

MR. MAGNUS: Well, but I'm going to assume that they're going to do that because while a master agreement may specify the netting that is theoretically allowed in the event of bankruptcy of a counterparty, it will only be if the bankruptcy regime in that country allows it that it happens. So one of the other factors, for example, that a firm like mine uses is we have confidence factors around both the ability to perfect a security interest in collateral and the netting opinions for different jurisdictions. And when we have multijurisdictional agreements, which we do frequently with certain types of counterparties --

MS. LEONOVA: Arthur, may I clarify? So what you're saying is that your portfolio exposure already is kind of having built-in netting arrangements that are in (inaudible)?

MR. MAGNUS: Yes, we've done the math

for you taking into factors that are both in the agreement and our business judgment or our legal judgment and the legal opinions that would allow us to manipulate that data.

MR. TROZZO: But then --

MS. LEONOVA: And what makes you think that you're right?

MR. MAGNUS: Well, one, we are supervised and these calculations and whatnot are reviewed on numerous bases. Many of the legal opinions have actually been reviewed and are built by the industry by law firms around the world and are put together by ISDA. But as any of the lawyers in this room would probably tell me, nothing in law is absolutely certain until it gets before a judge, which is why we look at data on both a net and a gross basis.

MR. TAYLOR: And if you think it's certain then, you're smoking something.

(Laughter)

MR. MAGNUS: That's also true.

MR. TROZZO: True. But if I -- again, I

think we're mixing a little two different things here.

MR. MAGNUS: Yeah.

MR. TROZZO: I agree. If the rules state that you're reporting valuations on a net portfolio basis between two counterparties, whoever the reporting counterparty is, reporting entity, then that's fine. But if you -- within the rules right now, you're reporting valuations on an individual transaction basis. So if that stands, you need to have some roadmap of deciding what you add and what you subtract. And that's the only point I'll make.

MR. WILL: I mean, there's actually an important point here is the existence of a master agreement in the CSA doesn't necessarily mean that that agreement's going to be enforceable. So if you want to add an extra layer of complexity here, you actually start to have to go and look at legal opinions, something very close to my heart.

MR. AXILROD: Yeah. I mean, you can sort of imagine a process that might work over time. I mean, if these CSAs are standardized enough and they're enough accepted legal opinions, right, CCPs in some jurisdictions are in the same place as normal counterparties. In the U.S., they're not -- they all have to get opinions sort of for each jurisdiction that their counterparties are in. All the banks get opinions with respect to each jurisdiction that their counterparties are in. A lot of these are published. So if you get to sort of, you know, a set of standard CSA positions and standard sort of jurisdictions in which we're not too worried about closeout risk and the courts won't allow you to net, then there's something useful in understanding where, due to some relation or other, somebody isn't following that standard. It's a good client of mine; I'm not following the standard. I'm talking off the top of my head, but I think it requires a lot more information gathering even to know how you could make this useful.

MR. PICKEL: I would point out we have a very good model for this. It's the Basel process.

In the early 1990s, they recognized closeout netting under the ISDA contract -- well, not the ISDA contract, under an industry master agreement, so long as there were legal opinions obtained and updated annually. And we've provided access to those opinions to many regulators around the world; happy to do so with the CFTC and the SEC. But the regulators rely on the banks to do the analysis on the legal opinions subject to the regulators again questioning them, probing them, grilling them, and asking them why they feel in that particular circumstance, with that counterparty and that jurisdiction, they feel that that opinion is of a sufficient level of certainty that they can net. So that process has worked.

And, I think, let's reflect on the fact that whatever the situation with AIG was, this architecture is there, it works. Yes, there are questions in terms of making sure that you've got the legal opinions. And we're happy to, you know, work with the Commissions to help them understand what exists and how it has worked very well and how it can work, you know, well under the new structure going forward.

But I think if we start -- Mike, if we start saying, well, you know, the agreement might be, you know, subject to -- you got to -- it may be subject to question until you get all these legal opinions, that's all built in already. Let's not suggest that there's some question as to the enforceability of these contracts. Otherwise, we've got a serious, serious problem here, Mike.

MR. WILL: I'm not saying that, Bob. Believe me, I'm not saying that.

MR. PICKEL: I'm sure you're not because you've worked too closely with us over the years.

MR. WILL: Yes. No, absolutely, and I designed --

MR. PICKEL: But let's not suggest that there's some doubt.

MR. WILL: No, I'm not doing that.

MR. TAYLOR: It's -- I'm trying mostly just to ask questions, but let's put it this way: If you assume for a minute -- and I do -- if you look at the recordkeeping rules, basically they say you have to keep records of anything that has anything to do with your business in swaps, and you have to be able to produce them when asked -- a fair enough summary -- that would mean master agreements are available to regulators for the asking if something else says to them, gee, we need to go look at this master agreement. Does that sound satisfactory to you all as opposed to getting them all in a warehouse somewhere?

MR. MAGNUS: Yes. I would say yes and I would say we actually have those requirement today because there are other rules, at least for dealers, that require us to keep documents and whatnot for periods of time. And so we have them and we do produce them for our prudential regulators today and we could product them for you.

MR. WILL: I should say that'll be a lot of pages that you'll have to review, so you won't be able to access the data immediately. And the one thing you might want to think about is if you're dealing with a dealer in distress, for example, and you have to come in and regulate that particular entity, you're going to be reading a lot of paper. It might be better to have the data available even if it's not reported to you in that particular circumstance.

MS. GOLDMAN: Yeah, I would just add you're reading the data and then you're interpreting the language as well in terms of, you know, what the representation means.

MR. TAYLOR: Maybe we'll send the prudential regulators.

We've bled a little bit into our Q&A time, which, again, I don't mind because it's not an active question- asking audience. But I will say if anyone's got any questions for this panel or that you'd like us to kick around, please feel free to come to a mic. There are a couple out there. Anyone?

Is there more?

MS. LEONOVA: Okay. Any final comments? Any burning issues that you want to utter right now? Of course, Mike, you have it. (Laughter)

MR. WILL: Actually -- I apologize. I always have to have the last word. What I would actually like to just pose is whether it actually would be a good idea to combine the collateral warehouse with the master agreement warehouse. I personally think that in certain circumstances the credit support agreement is actually deemed to be part of the master agreement, and consideration should be given to actually merging the functions together.

MR. TROZZO: I agree.

MR. MAGNUS: Again, I think there are terms that are in agreements that are very hard to quantify and put in there, and so you'll never get a complete characterization that you can standardize and put into a repository and know that if you're looking at it in the repository with the attributes that were specified, that you have the correct interpretation and there isn't something else. These are bilateral contracts between people. And yes, they do follow a standardized template, but they are allowed to -- and they do -- contain customized terms.

And I will tell you that one of the several functions that I do at JP Morgan is I run our credit risk middle office and I support a lot of our credit executives. And the moment a name gets into distress we have a procedure that we follow. And one of the first things we do is we pull the master agreements and get the lawyers to look it over to see what's in it. And we do not rely on the (inaudible) that we've done of that agreement because it's just too much of a risk at that moment in time when that event occurs to rely on any interpretation that might have been done three years ago.

So I think that the right approach -- and certainly at the onset of this so as not to create a burden, and we have enough things that we have to do -- is to focus on that which we have to do, get the high-level information to sound the alarm bells as a first step. And we can come back and we can explore with you, you know, when we're all a little bit more calm and not writing -- I forget how many rules are being written, and we're implementing those rules. We can then go back and calmly figure out what we want to do.

I also think, in a couple years, the landscape is going to look very different than it does today. There'll be a lot more in the clearing sector, which will be governed by much more standardized agreements because of the very nature of clearing than the bespoke agreement. And that might yield different risks or different things that we might think are important. And so we shouldn't jump the gun and do that.

I think we definitely have to recognize that master agreements exist; that's how we define our portfolios. But beyond the existence of the master agreement, I think you need to rely on, in a crisis, getting those master agreements and require, you know, the prudential regulator firms will look at it. And there are technologies available that, theoretically, look at this stuff and get it in different ways. But I still think nothing is going to change that in a crisis we're going to have a lawyer review the agreement.

MR. TAYLOR: If nobody else has anything substantive, I do have one thing I'd like to close with, and I address this -- there are people in the audience who are on panels and -- all of you in the audience for that matter, but I particularly address it to the panel. We've had this conversation with a few people during the breaks, but I just thought I would emphasize it. It seems so obvious to us, but you all may not think of it this way.

The comment period for our rule closes on February 7, and the effect legally is that after February 7 we go behind a curtain and we can't talk to you anymore. So if there is any input that you would like to give us beyond what you've said here today, please send us comment letters. I mean, feel free. I mean, I'm asking for an increase in our workload, but it's going to actually be very valuable. I mean, no matter how valuable it is, after February 7 we can't get it, so I encourage you. You have positive/negative comments about, you know, any of the issues we've talked about today, please do send things in.

MR. WILL: Well, I, for one, now know who the Wizard of Oz is.

MR. TAYLOR: I'm sorry?

MR. WILL: I, for one, now know who the Wizard of Oz is.

MR. TAYLOR: Pay no attention to the man behind the curtain, yes.

MS. LEONOVA: Again, I thank you very much for making this trip to Washington, D.C., in such horrific weather. We greatly appreciate your time and look forward to hearing from you again.

MR. TAYLOR: Thank you all.

(Whereupon, at 4:55 p.m., the PROCEEDINGS were adjourned.)

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CERTIFICATE OF NOTARY PUBLIC

DISTRICT OF COLUMBIA

I, Christine Allen, 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.

Notary Public, in and for the District of Columbia

My Commission Expires: January 14, 2013