CDIAC Webinar Transcript
An Update on Swaps:
What's Different and What to Disclose?
January 9, 2014

As a part of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") derivatives, including interest rate swaps, are subject to the regulation by the Commodity Futures Trading Commission (CFTC) and the Securities and Exchange Commission (SEC). This webinar discusses what this means for the municipal market, including the rules and regulations that pertain to "Special Entities" and the disclosure and reporting requirements under GASB 53.

Slide 1 – An Update on Swaps: What's Different and What to Disclose?

Mark Campbell: We're ready to start. This is Mark Campbell the Executive Director for CDIAC. We would like to welcome all of our participants to our first educational program for 2014, and we wish you all a Happy New Year. We are revisiting a topic dear to our hearts with SWAPS - An update on Swaps: What's different and what to disclose? Our program today runs from 10am to 11:30am. We have an excellent panel to discuss all of the different dimensions of this topic.

I want to make sure that you know if you any technical issues, there is a number and a website that you can contact, so you can jot those down, or if at any point you have a problem you can give us a call at our general number at CDIAC. Live captioning service is available as well, at the website indicated there on the screen. There is also a certificate of attendance which will be emailed to all webinar attendees at the end of the webinar. Lastly, not noted here are biographies for our speakers which are on our website under the seminar. I will just abbreviate those, but be sure to reference those to get all of the information on our speakers today. We also have a list of recommended readings with links to those documents to allow you to follow up on the topic in the future.

Slide 2 – Upcoming CDIAC Seminars (01:40)

We will go to the second slide here, briefly highlighting some of our upcoming seminars. This is the beginning of the year so we want to make sure you are aware of what we have planned for the beginning of the next calendar year. March 18th and 19th we will focus on *Municipal Market Disclosure: Current Topics and Practices* that will be in Pomona, California. March 12th and 13th we will look at the investment side of our portfolio with *Tools and Strategies for Today's Public Investment Portfolio Manager* and that will be in Concord, California. We have a couple of other programs ongoing and you can check those out on our website. We do have a land secured program coming up in spring, so if you are interested in that esoteric topic, that will be coming up.

Slide 3 – CDIAC Media Library (02:40)

Our third slide is an opportunity for us to highlight a new dimension of our education programs. That is online access to past webinars and seminars that were recorded. If you go to our website and click through that, it will take you to a login page which will require the same login ID and password as you are using for the CDIAC seminars. So do not be discouraged and get through there. There on the screen there is a list of programs that are posted there now and we will keep them up there as long as we think they are relevant and timely.

Slide 4 – An Update on Swaps (03:25)

I will go quickly to our speakers, and introduce them and allow them to begin to handle the subject. Our facilitator today is Eric Chu, Managing Director for BLX group in Los Angeles, California. He has been with BLX since 2004. He is the head of the firm's derivatives, advisory and compliance practices. His experience gained through hundreds of interest rate swaps transactions include new transaction structuring, existing transaction workouts, ISDA document negotiations, and independent pricing of swap transactions. He has also led development of the BLX web base swap monitoring platform, BLX Swap.

With him is Daniel (Dan) Deaton, partner with Nixon Peabody LLP, in Los Angeles. Dan is with the public finance group Nixon Peabody, LLC. He represents governmental agencies, non-profit corporations, underwriters and other bond counsel, disclosure counsel, and underwriter counsel in a wide variety of tax-exempt and taxable public finance transactions.

Nikiforos (Nik) Matthews, partner with Orrick Herrington Sutcliff in New York is member of the structured finance banking and finance energy infrastructure groups. His practice focuses on representing financial institutions; governmental and regulated entities, hedge funds and corporate end-users in structuring and negotiating a broad range of fixed income, foreign exchange, commodity, energy, and credit derivative products.

And lastly, Peter Schapiro, Managing Director for Swap Financial Group. He advises the firm's senior clients giving them strategic advice and transactional analysis. He has participated in documentation negotiation, and advises three principal groups of clients: corporations, non-profits, and governmental agencies on the use of swaps and derivatives transactions. With that I will turn it over to our facilitator Eric.

Slide 5 – Introduction (05:38)

Eric Chu: Thank you Mark. It is a pleasure to be here. Thank you all for taking the time to be with us today. As Mark mentioned, we are revisiting the topic of swaps, and the reason for that is because of all of the changes that have occurred in the last couple of years in the markets that in particular have affected governmental issuers, and similar entities that use interest rate swaps thought it would be timely to revisit the current status of things. In our discussion today we will

range from regulatory matters relating to Dodd-Frank, to accounting matters under GASB 53, to more general discussions of what is happening in the swap markets today in terms of structures and economics. With that I will turn it over to our first speaker, Nik Mathews from Orrick Herrington who will be speaking on Dodd-Frank.

Slide 6 – Swaps Overview (06:38)

Nik Matthews: Thank you Eric and good morning everyone. As Eric mentioned, my name is Nik Mathews and I'm a structure finance partner in the New York office of Orrick Herrington focusing on derivatives.

Slide 7 – Background (06:48)

The place to start here when we talk about Dodd-Frank is to start the discussion in 2008 before the Dodd-Frank swap reform was effectively planned during the financial crisis. Among other things regulators found that over-the-counter derivatives, in other words swaps traded outside of the exchanges, presented enormous potential systemic risk, risk to the financial system in general. The lack of central clearing houses really meant that significant bilateral credit risk existed between parties, bilaterally again, typically between a dealer and an end-user. Moreover as concerns over Lehman's financial health became very acute, regulators became more and more concerned about the knock on effect of its potential failure as well as that of AIG, but realized they did not have access to adequate information to predict or quantify the effects of a Lehman's demise or AIG bankruptcy. In short, despite its enormous size, approximately $6 trillion in no show amounts traded, the swaps market operated largely in the dark without supervision or regulatory oversight.

Title VII of the Dodd-Frank Act was intended to reduce systemic risks presented by these over the counter swaps and provide regulators with necessary tools to monitor the market. Most fundamentally the legislature intended through Title VII to do the following: First, to reduce systemic risk by requiring standard swaps to trade on exchanges and be centrally cleared. Second, impose margin and capital requirements on swaps market participants. Third, require that basic trade data be reported to repository's to which the regulators have access as well as the identities of the swap counterparties themselves. Fourth, ensure that market participants maintained adequate records recording the swaps activities. And fifth, really to enhance the protections of reported to end users especially governmental entities and others who became known as special entities under the act. They would do this by requiring swap dealers to comply with certain business conduct standards towards their customers.

Slide 8 – Background- cont. (08:38)

In this portion of today's presentations we will provide an overview of the implementation of Title VII of the Dodd-Frank Act with a specific focus on its implications for special entities. First, we will go through some key definitions under the act, and then we will discuss requirements for central clearing of swaps including the availability of exceptions and exemptions, including the end-user exception. Then we will discuss reporting and record-keeping requirements of the act, as well as proposed margin requirements. Finally, we will provide a brief overview of external business conduct standards applicable for swap dealers, which of course, ultimately affect end-users.

Slide 9 – Definitions (09:14)

The basic starting point is to understand when the requirements of the Act apply to a person's trading activities. In short, what's a swap? The term swap is defined in the Act in the regulatory items to include a long list of enumerated products including interest rates swaps, caps and floors, credit default swaps, energy swaps, equity swaps, agricultural swaps and others. However, the definition of swap also includes language that would cover "permutations" of the enumerated products as well as transactions types in the future that become known as swaps. Of course this can be interpreted as being quite broad. One brief note here, it is important to remember that when we talk about swaps, swaps under the Dodd-Frank Act are regulated by the CFTC. Some of you may have heard of security based swaps which are swaps based on the single security loan among others. The security-based swaps have similar requirements to swaps that are regulated by the FTC not the CFTC. However, they are far less relevant to most of you participating today, so for the sake of simplicity we won't be discussing them.

Slide 10 – Definitions- cont. (10:20)

Once we determine whether a particular trait type is subject to the Act, we then need to recognize or know the party roles to understand whether and to what extent the Acts requirements apply to you. Almost always, at least one party to swap is a registered "Swap Dealer". A swap dealer is defined as a person who either holds itself out as a dealer in swaps, makes a market in swaps, regularly engages in the purchase in the sale of swaps in the ordinary course of business or engages in any activity causing the person to be commonly known in the trade as a dealer or market maker in swaps. The CFTC stated at the time that it expected approximately one hundred and twenty-five entities to register as swap dealers. So far at last count I believe there were ninety-four. The bulk of the Acts requirements fall on the shoulders of the swaps dealers, however to comply the swaps dealers engage in certain acts and some require certain representations from their end users.

Slide 11 – Definitions – cont. (11:17)

Swap dealers generally enter into swaps either with other swap dealers or with end-users. However, the Act recognizes that not all end-users are equal in experience and sophistication. For example, you can have a fund known as an active fund that can trade hundreds of exotic credit, foreign exchange and equity swaps each month. Whereas a state agency, which is a type of special entity, may only enter into a single vanilla interest rate swap related to a variable rate bond issuance every few years. Special entities are really a protected class of end- users under the Act.

So who exactly qualifies as a special entity? Essentially four types of persons: First, federal agencies; Second, states, state agencies, cities and municipalities or other political subdivisions of the state; Third, employee benefit plans and governmental plans under ERISA, and finally endowments, including 501(c)(3)s. The Act afforded certain enhanced protections for special entities. It also attempting to restrict, at least to some extent, the ability of certain governmental entities to qualify as what are known as "eligible contract participants" under the commodities exchange act, which are entities that are permitted to enter into swaps outside of exchanges. They did this by increasing the discretionary investment threshold that was required for certain governmental entities to qualify under this definition from $25 million dollars to $50 million dollars.

Slide 12 – Central Clearing (12:40)

As we noted at the start, one of the real fundamental pillars of the Act was to require standardized trades to be centrally cleared by market participants. What really does this mean? In a typical scenario two parties would negotiate terms, enter into a swap, and then face each other until maturity, taking each other's credit risk for that period. In contrast, under a clear trade, a swap entered into between two parties, whether on an exchange or over the counter, is effectively given up to the clearinghouses so the parties no longer face each other, rather they both face the clearinghouse as their counterparty. Of course, the clearinghouse itself must be robust and ensure that requiring these swaps to be cleared hasn't just consolidated a risk instead of diffusing it. There are several regulations that deal with the structure and capitalization and oversight of clearinghouses.

To date, the CFTC has made a single determination requiring the type of swap to be cleared. In December 2012, just over a year ago, they required a vanilla industries swap an index credit default swaps to be cleared by market participants. This implementation was over nine months and was accomplished in three 3 month phases. Each party fell into one of three compliance phases essentially depending on their level of sophistication. They were known as Categories: Category I, Category II and Category III.

Slide 13 – Central Clearing - cont. (13:52)

The clearing determination that was made and the ones that are expected in the future are generally applicable to all market participants. Simply put, if you enter into a swap that is covered by the determination and you are subject to CFTC jurisdiction, if there is a clearinghouse, a DCO or central clearing counterparty that accepts that type of trade, then you must centrally clear that swap. That is unless you are able to rely on exception or exemption. The primary exception that was made available to end-users is known as the end-user exception. This exception intended to ensure that the swap market is not closed for non-financial market participants that use swaps to hedge. The exception is generally available to a person that satisfies a three-part test. First, and your most importantly probably, that it is a nonfinancial entity; second, it uses a swap to hedge or mitigate commercial risk; and third that it notified the CFTC how it generally meets its financial obligations associated with uncleared swaps.

A few notes on these requirements: First the test really pivots on determining whether a person is a financial entity. The definition of financial entity includes swap dealers, commodity pools and similar entities. That is something obviously that we would expect. Harvard also includes persons who are "predominantly engaged" in activities. They are in the business of banking or activities that are financial in nature as defined under the Banks Holding Company Act. This broadens the test significantly, and so there are some concerns by special entities as to whether they would qualify or not under the definition.

The CFTC and its guidance refuse to provide a blanket exception or guidance that all special entities were not "financial entities". It did however provide some really strong and helpful guidance regarding special entities and the financial entity task. Specifically, the CFTC stated, "that even assuming that many state and local government entities may engage in some limited activities during the business of banking or a financial nature, such activities are likely to be incidental not primary activities of those entities." The CFTC went on to say that most state and local government entities are "predominately engaged" in other non-banking and non-financial activities related to their core public purpose and functions and so would not constitute financial entities.

This guidance goes a long way, although it's not a blanket exception in creating a presumption that the vast majority of special entities are not financial entities. Therefore, most special entities should satisfy the first part of the test. Second the CFTC clarified what it meant by hedging or mitigating commercial risks. This guidance notes that to qualify, a swap could be related to a portfolio of variable rate bonds and it also provided that if a swap qualifies for hedging under GASB 53 then it would be treated as "hedging commercial risk" for purposes of the exception. Finally, this final prong of the test can be satisfied very simply, either by the end-user itself making a brief online filing annually on the CFTC website or by having a swaps dealer counterparty report use of the exception on a swap by swap basis. As well as the fact that the counterparty intends to use whether it's a credit support arrangement, segregated funds or its available financial resources to satisfy its uncleared swap obligations.

Slide 14 – Reporting (17:12)

So in addition to clearing another fundamental component of the Act is reporting requirements. Information regarding the identities of parties to swap and basic economic data regarding a swap generally must be reported to an entity called a "swap data repository." These are new entities for these purposes. This requirement applies to swap trades on exchanges as well as over the counter and also applies to new swaps and as well as certain historical swaps, as they call them. Significantly, to facilitate the reporting of an identity of a person, each person is required to have a unique "legal entity identifier" (LEI). A global system for some use LEI's as being established, but in the meantime, the CFTC is requiring that all market participants obtain what is known as a "CC" or CFTC interim compliant identifier. The deadline for obtaining these CC's for all market participants is passed, but the requirement applies to all of those who had a swap in place by April 25, 2011, even if that swap terminated or matured.

For swaps traded on exchanges, the exchange is the party that is really required to report the swap. For swaps traded bilaterally over-the-counter, generally all recording must be done by the Swap Dealer. It is not the responsibility of the end-user. One note caution, if a swap is between a non-U.S. dealer who is not registered as a Swap Dealer under the Act with the CFTC and an U.S. end-user then the reporting burden falls to that U.S. end-user. Of course that may be very expensive and operationally burdensome without the adequate technology and infrastructure which most end-users lack.

Eric Chu: Nik, this is Eric, can I interrupt you for one second? For the legal entity identifiers, will there be another requirement then for issuers to process even if they have their CC number today?

Nik Matthews: The expectation Eric is that it is unknown what the expectation is. They do not want to create that burden, so therefore whatever your CC is it should roll into being your LEI. This is because global regulators have not gotten around, and other regulators outside of the U.S. have not gotten around to creating the system. And certainly there is no globally operational system, so the CFTC wanted to get the ball rolling since it was mandating reporting and having its clearing determinations made a bit ahead of the others.

Eric Chu: Thank you.

Peter Shapiro: Nik, its Peter. One related thing. You said that the deadline has passed on CC's, but for those who are entering into new swaps today you can still get a CC?

Nik Matthews: Yes, that is absolutely right. If you didn't have any swaps in place as of April 25, 2011, and you are entering into a new one, then you didn't need to have a CC. We see this with special purpose entities all the time and new counterparties who haven't been engaged in the swap market beforehand.

Peter Shapiro: And it takes about 10 minutes to get one.

Nik Matthews: That's right. It is very easy and I think its $200, and then to maintain it, it's $100 to maintain it annually. And I believe you get reminders from the system, so it's not burdensome. It is one of the few active requirements on end-users, so if you do nothing else and you're not

going to enter into any new swaps then really what applies to you is recordkeeping and CC requirement. But it is one of these active requirements that are not just passive for end-users.

Eric Chu: Right

Slide 15 – Recordkeeping (20:38)

Now moving on to record keeping, in addition to the reporting requirements, swap dealers and end-users are both required to maintain records relating to their swaps. The level of recordkeeping depends on when the swap was entered into. Swaps entered into after April 10, 2013 all end-users must maintain "comprehensive records" in paper or electronic form. These records have to be maintained for the duration of the swap and five years after its termination. All that information has to be retrievable within five business days and is open to inspection by the CFTC.

Slide 16– Margin (21:17)

Now, centrally cleared trades must be collateralized by both parties by posting initial margins as well as least daily variation margins to cover moves in the market marketable swap. So that could be very onerous for folks. The day you enter into swap you post this initial margin, both sides. The clearinghouse holds that in case bad things happen to either end of the swap, and in addition to that on at least a daily basis, you have to post variation margins covering market marketable moves.

What about these uncleared swaps? The CFTC and prudential regulators, who are the prudential regulators body such as the OCC (The Office of the Comptroller of the Currency), they both propose margin rules for the uncleared swaps in April 2011. However, largely due to the concerns raised about significant potential liquidity impact that this would have on end-users, these proposed rules have not yet been finalized. For example, there are potential widget makers, true end-users, who use swaps to hedge. And to require them to start posting it, and who happened to be very highly rated, to start to impose initial margin requirements and at least daily variation margin requirements similar to what the clearinghouses were going to impose would be extremely burdensome and would have a severe impact on liquidity for end users. And that has been qualified into billions and billions of dollars by industry groups.

However, it's important to note that the proposed marginal rules essentially split end-users into two categories. They haven't been finalized yet, but what was contemplated by both sets of regulators was there would be "financial end-users" which are further broken down at" high risk" or "low risk" entities, which are less relevant for our purposes today, as well as nonfinancial end-users. With respect to this latter class of nonfinancial end-users, the two sets of regulations suggest different approaches with the CFTC merely requiring that some credit support arrangement as it was calling it, exists between the parties, and the prudential regulators

proposing a delivery of initial margin in weekly variation margin, however, above certain credit-based thresholds that the dealers would be able to set. So whatever rules ultimately get finalized for the collateralization of uncleared swaps, if they get finalized, because we are almost at the three year point now, those rules are not expected to apply retroactively to existing swaps, which is very comforting.

Eric Chu: So Nik, so Nik, what you're describing, that sort of sounds like your typical credit support annex. Would that be generally correct? I mean a credit rating based threshold system applying to nonfinancial end-users, which I think most of our audience would fall into that category. That is what this is sketching out to a true collateral posting requirement for folks under this based on what the prudential regulators have proposed.

Nik Matthews: Right, really it is the unknown and how it gets flushed out. If you take the CFTC requirement they are just requiring that a credit support arrangement exist, but the devils in the details. What does that really mean? The CFTC by the way, reserves the rights to impose additional requirements on what that meant or thresholds or a framework of thresholds or the like. I don't think they articulate exactly like that, but to be able to impose more requirements than that. But if we do have a disparity, especially in this day and age, between the swap dealers and the ratings, and I think Peter is going to get into that a little bit and certain very highly rated and strong credits where one way arrangements for collateralization had traditionally existed in many cases, where only the dealer would post collateral, where here that would invert the situation to a certain extent. And by the way under the prudential regulators requirements, the dealers would be able to set these thresholds, and clear where those thresholds would be and under what type of framework and delivery of initial margin would be mandated. Whereas right now, certain end-users, especially many of those on the phone, aren't in a position where they don't post initial margin, weekly variation margin or any kind of variation margin, and so this could be a significant departure.

Eric Chu: Right. Yeah maybe I was just naively thinking we were done with all of the change in that regard, but there will be more to come.

Nik Matthews: They've hesitated for many reasons over the last almost 3 years now to finalize those due to the outcry. And you can easily look up industry groups and the way that they have quantified. I believe one of those quantifications was $23 billion and the loss of liquidity to day one or whatever the expectation was. Obviously I'm not sure what assumptions went into those numbers, but that has really been a concern of the end-users community.

Peter Shapiro: And remember on this, that the whole idea of the regulatory framework is to deal with systemic risk. It is to deal with something that could bring the financial system crashing down. That's something that is much more likely obvious to be with the huge swap books that the dealers and major financial institutions have. The idea that an end user, like a state or local government entity, because it was not posting collateral back to the dealer, when any measure of pose systemic risk its almost laughable. So we have to keep up the pressure on this, on lobbying fronts, something we've been very active in with both the feds and other prudential regulators as well as the CFTC. CFTC and at SEC seem to get this, but we still have to keep repeating it. Because most of what these guys think about is this is just a market of banks. They forget that

they are real people, like the people who are participating in this call. That participate in this market, hence the real risks they face here in linear businesses.

Nik Mathews: Peter is absolutely right there. We see the SEC and the CFTC really giving advice, at least proposing the two categories of the financial end-users and nonfinancial end-users, and when it came to the non-financial end-users having very much of a lighter touch than they did with the high risk and low risk financial end-users themselves. However, there was no exemption; there was no high threshold set in the end. The way that the prudential regulators came out really created something that could potentially be onerous and really result in an unnecessary lock up of the markets and loss of liquidity for end-users.

Slide 17 – Extraterritoriality (27:36)

Just moving on quickly folks for the sake of our timing here on extraterritoriality. Just a very quick note here, although it doesn't directly affect the swaps markets for special entities it's been the focus of a great deal of news over the past few months as global regulators tried to coordinate to prevent applicative supervision and requirements. In short, Title VII is not intended to apply to foreign activities unless those activities either have a direct and significant connection with activities in, or effect on commerce of the United States; or contravene rules and regulations of the CFTC. In short only if a foreign activity presents systemic risk to the U.S. or structure to invade regulations or Dodd-Frank is it supposed to be regulated. That gets a little bit more complicated when you talk about foreign branches of U.S. banks or non-U.S. broker-dealers who are operating the swaps market. That is supposed to be the backdrop the applicability of extraterritoriality or the impact of extraterritoriality.

Slide 18 – External Business Conduct Requirements (28:33)

Now finally here, swap dealers are subject to new external business conduct standards when they deal with their customers. We mentioned that earlier. Among other things, these standards require swap dealers to make certain disclosures to their customers and also provide them with daily marks. For special entities dealers also have to do a variety of things including having a reasonable basis to believe that the special entity has as "independent representative", essentially a swap advisor, that has specified qualifications, and also before the initiation of any transaction, to disclose to the special entity in writing, the capacity in which the swap dealer is acting for example, as an arm's-length counterparty as opposed to as an advisor.

At this point, I'd like to hand things over to Dan Deaton of Nixon Peabody to address the things that are important and the steps that are relevant for special entities in connection with these external business product requirements, including adherence to the provisions to the background protocol that many of you have had to grapple with, and the requirements for swap advisors of special entities known as QIRS. Dan.

Slide 19 – New Swap Regulations (29:33)

Dan Deaton: Thank you Nik. The real question out of all of these different swap regulations is what are people really supposed to be doing with all of these? This morning we are really focused on a category under the regulation of interest rate swaps participants that are called special entities, which Nik described, which is basically to say that all of our state and local governments that serve as counterparties to interest rate swaps transactions are special entities. And the reason for that is, is that special entities have different categories of things that need to be done than other end-users of interest rate swaps.

Slide 20 – If You Are a Special Entity, What Do You Need to Do? (30:18)

And um, moving to page 19, there we go, there is a little bit of delay. So if you are a special entity, just in the very big picture, the question is what is it that you really need to do? Right now, the three main categories of things that need to be done is that if you anticipate doing anything with your swaps transaction in the near future you will need to do three things: First you need to work with the swap counterparties with respect to your existing swap transaction to amend the swap transactions in order to enable the swap dealer to comply with the business contact standards and the mandatory clearing requirements that Nik described. You'll need to take the steps necessary to have a qualified independent representative in place, and you will be to determine if third-party consent is required for any of those amendments to be effective. If you are entering into a new swap transaction that is in fact even simpler, because documentation you enter into would take all of those into place.

Eric Chu: Dan would you mind giving an example of third-party consent that you mentioned?

Dan Deaton: Yes. A lot of instances that we have run into with older swaps is they were insured by some bond insurers. And that basically said that there were no amendments to the swap that could be effective without the consent of the bond insurer. Sometimes that can be complicated because there may not be all that many people back at home at the bond insurer, and so those consents need to be sought through and considered because it could have an impact.

Eric Chu: Right. Thank you.

Slide 21 – Amending Your Swap Transactions (32:00)

Dan Deaton: If you have an existing swap transaction, and you need to amend that in order to enter into and allow the swap dealer to comply with the business conduct standards, and for both to comply with the mandatory clearing requirements, there are two ways that the market has really developed to deal with that: One is that ISDA has published a set of protocol documents to try to make it easier for people to affect those amendments. Another way is counterparties and

swap dealers can use their own documents, and both methods have become common in the marketplace. In essence, the larger portfolio that a municipality or state has in terms of its swap and number of swap counterparties that a person is on the other side of tends to be the determining factor of that because with the protocol documents what it allows is for the municipality to in essence make the filings that people talk about and come up with a form of questionnaire and a series of other forms and effect those amendments in a very efficient way. However, if all of that there is one swap transaction it can be easier to just do it outside of the protocol process.

Eric Chu: Right, so Dan, it is an electronic platform that you have to get the learning curve on, but once you do it can be affected to a lot of counterparties simultaneously, whereas the bilateral documents have to be done by one.

Slide 22 – If You Are Going to Use the Protocol Documents (33:35)

Dan Deaton: That is right. In order to use the protocol process, the state or local government would have to execute and adherence letter by going onto ISDA's website, you would have to pay $500 that if you went outside of the protocol process you wouldn't have to do. There are a complicated set of documents that are on there. However, what it allows to be done is for questionnaires to be executed by the municipalities or by the state, and it allows them to in essence, blast those out to a number of different swap dealers so that it allows the special entities to be able to affect that very efficiently with a large number of swap counterparties. However, if there is one counterparty then it cost more money than it needs to, and it's also, as you described Eric, it tends to be more complicated because you can get one document that you can read through and understand what is there, rather than having to figure out all of the different protocol documents. So it just depends on what the specific needs of the special entity are.

Peter Shapiro: Dan, its Peter. Just thinking about it from what we have seen with our clients. The issue with the protocol is it had to be written as one size fits all. So it is the same document that would apply for a hedge fund, a pension fund, an endowment, or a state and local government entity. So it includes a lot of extraneous verbiage, so that is the downside. The negative is it tends to be pretty damn efficient to do. You do not have to re-draft anything. Although you incur the $500 cost, you don't generally incur much in the way of legal fees. So initially we saw a lot of skepticism about the protocols. Increasingly we are seeing that most of our clients are just going through the protocol process and doing that, which we find takes about half an hour one day with a pause to get feedback and then half an hour another day, just to people a sense on that.

Slide 23 – If You Are Not Going To Use the Protocol Documents (35:45)

Dan Deaton: And going outside the protocol documents, it ends up being a very similar process as well. In my experience all the swap dealers have created their own form of documents that have been remarkably similar to the protocol documents and involve completing a questionnaire like the protocol questionnaire. However, as Peter and Eric are describing what it does end up becoming is very inefficient if it needs to be replicated in multiple instances. I've had some of our clients have one swap and going outside of the protocol questionnaire becomes a much easier thing to do and it tends to be quicker and faster. And as Peter also described, allows us to tailor that arrangement to more complicated situations. Whereas, our clients that have ten different counterparties, we would not want to do anything other than the protocol process because it would really grind to a halt.

Peter Shapiro: Let's say you want to do a competitive deal. You're going out there and you want to compete it out among 5 to 10 different dealers. The protocol process simply works better on that.

Dan Deaton: Yeah. And nobody wants to pay more legal fees than they have too.

Slide 24 – What Are Some of the Important Provisions of the Questionnaires? (37:10)

Now what are some of the important provisions of the questionnaires? The point of the questionnaire, the protocol questionnaire and even the ones that are outside, is to allow the counterparty to make the elections and identify itself appropriately. So, the first and most important one of those elections is that a party is an eligible contract participant. This is not a big issue for special entities because one of the elements of being an eligible contract participant is if they are a governmental entity, if the counterparty or governmental entity, that's all that is needed for an eligible contract participant. However, in other instances, particularly with larger organizations that have subsidiaries and a number of other types of things, this actually can get a little bit complicated because they'll actually be transacting with someone that technically is not an eligible contract participant and something that needs to be dealt with in order to make sure that they are.

In addition, if the counterparty is a special entity, the questionnaire requires for the counterparty to identify that they are special entity and importantly, you need to designate your qualified independent representative. As Nik mentioned, if there is under the business conduct standards, one of the requirements of the business conduct standard is that if a swap dealer will be dealing with a special entity, the special entities needs to have an independent representative that meets specified qualifications, and I want to get into that. And part of the purpose of the questionnaire is to make sure that that process is being followed.

In addition to those two, if you are a special entity, the special entity will also need to make mandatory clearing requirement elections. And those track with the regulations. In essence, the special entities are going to seek to qualify for the end-user exception. And so what that requires is for the questionnaire to elicit from the special entity that it qualifies for the end-user exception. And what that requires in essence is for the special entity to say three things: Number one, it's

not a financial entity, which is not a hard burden to meet, because sort of by definition if you're a governmental entity you're not a financial entity; That you're using the swap to hedge or mitigate commercial risk; And then, also importantly, that you have to say either that the special entity is going to do the reporting of the mandatory clearing requirement or it authorizes the swap dealer to do so on its behalf. And not complicated, but those elections need to be made to make sure that the end-user exception is accomplished.

Slide 25 – Qualified Independent Representative (40:14)

Now I want to pull back to the requirements for special entities with respect to qualified independent representatives. This is one of the most important provisions that the business conduct standards added in and in essence, they are there to protect local government that had been in many instances, entered into swap transactions that people considered to be not favorable transactions for the local government. One of the most important requirements is that if the swap dealer is dealing with a special entity, the swap dealer needs to have taken the steps in order to validate that the special entity has engaged a qualified independent representative.

The qualified independent representative, is to really boil it down to its essential elements, knows what it is doing, has not been disqualified, is working for the best interest of the special entity, and is probably the meat of the rule, is it also has to be independent of the swap dealer.

Slide 26– Qualified Independent Representative (Continued) (41:30)

Now when the CFTC regulations go on to defines independent, it defines it with a lot of detail. It cannot be an associated person of the swap dealer, which means that it cannot be an affiliate or subsidiary or control it or things of that nature. But importantly, at the bottom of this slide, the swap dealer cannot have referred, recommended or introduced the representative of the special entity within one year of representative's representation of the special entity in connection with the swap. This is a, there is a lot of meat to what constitutes independent. A lot of instances, people are not necessarily going to qualify for independent even if they have a separate organization from the swap dealer. So some attention needs to be brought there to make sure that the qualified independent representative is in fact is independent and otherwise qualified.

Slide 27 – Qualified Independent Representative (Continued)-cont. (42:30)

What does it mean that the special entity needs to do in order to ensure that it has a qualified independent representative, knowing that it is going to have to populate those elections on the questionnaire?

The first thing is that the special entity needs to make sure that it has a swap advisor. And it needs to make sure that swap advisor meets the requirements of the rules. Does the swap advisor in fact have the knowledge, understanding and relationship, and independence that are necessary to serve as the qualified independent representative for the purposes of the swap? Number two, the special entity needs to enter into a QIR agreement with a swap advisor, so that the swap advisor providing the necessary representations concerning its qualifications and other requirements. This is a very simple agreement that we have done with a number of our different clients, and what it does in substance, is assures that they are independent, and they are knowledgeable of what they need to be doing, and the other necessary steps in the qualifications in order for them to serve as a qualified independent representative.

Finally, the special entity needs to adopt policies and procedures that govern the relationship of the QIR and the special entity. These are very, very, simple policies and procedures, and most of the ones that I've been involved with have been just about one page. And what the policies and procedures in essence say, is that they are going to select a swap advisor, and the swap advisor is going to meet the requirements of the qualified independent representative, and enter into a legal contract with the qualified independent representative, and that the special entity will review the internal policies and procedures with a qualified independent representative before doing so. We have also gone on to add into the policies and procedures the record keeping and retention requirements that Nik referenced, that all swap contract participants are required to maintain.

Peter Shapiro: Dan, just one quick thing on the QIR thing which is interesting. And that is, remember Dodd Frank was supposed to begin with systemic risk. This clearly doesn't go to systemic risk. This one went to a whole other issue that came up from the discussion of the Dodd Frank Act where some members of Congress felt that there had been abusive practices and those abusive practices should be dealt with, as well as dealing with the overall issue of financial risk to a whole market. It is particularly the case because the ranking member on the House financial services committee represented Jefferson County, Alabama, and the results of some discussion closer to home in California of Oakland. So this is where this requirement comes from- congress trying its wisdom to do what it sees to be doing as doing good. Um, one interesting little secret, on this provision on the QIR, and this is something that is not in my financial interest or Eric's financial interest, to state, but technically you do not have to hire an outside swap advisor. You could designate someone internally that has sufficient expertise to be the QIR. Certain very sophisticated entities have done that. It's probably not advisable because there are so many technical requirements, that that person would have to meet. For example, the Harvard Endowment, which is the largest university endowment in the world, has said that we are not going to have an outside QIR, we are going to designate somebody internal. Just so you know that.

Eric Chu: Yeah, and to be sure, really the burden here is it seems to be on the issuers side, but the consequence of these things not being followed is that the swap dealer will choose not to transact with you because they won't have the protections they need. Isn't that right? That really, if they did transact with somebody without these things in place, the implication would be that they would be acting as a fiduciary, or that would be the assertion?

Dan Deaton: Well, that they would not be in compliance with the CFTC regulations, I think more broadly. Yeah there is a, further to what Peter was saying, one of the things that we have battled with through this process in some instances is getting the minority of situations we have dealt with, we have dealt with some situations with some counterparties who do not want to really read through what they're doing here and what they're actually representing in the protocol document. And they want to populate this information very quickly and just get whatever is necessary and turn it over to the swap dealer and move on with life. And we really discourage that.

These things did in fact come out as a result of some abusive practices. And we have one notable situation that I was involved with where we really had to slow our client down and say you really have to read this, you really have to think about what you have here because it matters. And we ended up walking him through the situation and he was actually through the process, was able to slow down to be more careful, and this was not a special entity so we did not need to have a qualified independent representative. And in the end the pricing by the swap dealer was not a fair pricing arrangement. By virtue of slowing him down on what he is doing, he was able to work that out and was able to correct the problems with the pricing by the swap dealer. We really encourage people to slow down and understand that whether the policies good, bad or indifferent it was there because of abusive practices and to take it seriously because it really cannot hurt to be taken seriously. It could actually help quite a bit.

Eric Chu: Good advice.

Slide 28 – Things You May Need to Be Doing Because of These Rules (48:48)

Let me wrap this up. Things you may be doing because of these rules? How will these rules apply to? Do you plan on entering into new swaps or amending, novating or terminating existing swaps? If you are then the question is do you need a qualified independent representative? Do you have authority to amend your swap documents or do you need your board approval? This has been a big issue in some places where they literally cannot amend the swaps because they need board approval, and they need to move quickly on a swaps transaction, and the swap dealer says I cannot do that because I need you to have these in place and they do not have the authority to do it. Third, do you have the authority to modify your internal policies and procedures or do you need board approval? We've dealt with this in some instances by having the policies and procedures to be finance department policies and procedures, rather than board level policies and procedures. And our view is that there is nothing in the regulations that prevents that. But still it's an important question of what level of policy and do you have authority do that, and then do you need a third party consent for any amendments?

With that I am going to turn it over to Eric Chu and he will talk to you about GASB 53.

Slide 29 – GASB 53 (50:00)

Great, thank you Dan. So we are going to switch gears a little bit and focus on GASB 53 or the accounting side of swaps. GASB 53 has been around for a few years now, so I think, my guess is that many of you are familiar with GASB 53 and have been in fact living with it for a couple of years. But I wanted to in particular, focus on certain circumstances that result in terminations of hedge accounting. So, to go onto the next slide here…

Slide 30 – Refresher (50:37)

Just as a refresher, GASB 53, the GASB 53 statement, the objective of it is to enhance the usefulness and comparability of the derivative instrument information reported by state and local governments. Derivative instruments, including interest rate swaps, which by and large are going to be most common thing that you have, but also commodity hedges are subject to statement, but not investments such as guaranteed investment contracts. Under GASB fifty-three, the requirements include that you to test each swap that you have for what they call "hedge effectiveness", and hedge effectiveness, as a practical matter, is really just a measure of how well or not well your swap has performed for you since executing that swap. So, whether it has performed sufficiently as a hedge as you intended. In any event, you do need to record in your financials, the change in fair value of that swap transaction. And within the statement of net assets and depending on whether it's deemed to be an effective hedge or an ineffective hedge, will dictate whether you record that change in value within or as a deferral amount which is only on the statement of assets, net assets statement, or whether it's within the investment revenue section of your financial statements. That would be what they call an investment derivative treatment.

Finally, the last requirement is that GASB 53 requires that you provide a summary of the activities of your swaps and the various terms and risks within your financial statement notes. As mentioned, GASB has been around for a few years, so probably something that you have encountered is that you have a swap outstanding.

Slide 31 – Focus: Terminations of Hedge Accounting (52:53)

So as mentioned earlier the thing, the topic that I will really focus on today though and the reason why I want to focus on this is because in our experience it's been a very common occurrence and there sometimes there is confusion about exactly what happens when you have a termination of hedge accounting, and when that situation occurs.

So, firstly, just as examples of when you have a swap that is currently an effective swap, and there is a termination of its effective treatment, that can include when your bonds are refunded or when your swap is modified or restructured. And it also can occur if you assign or novate the

swap, and there is an exception to that point with GASB 64. GASB 64 came out sometime later after 53, but basically said that to the extent you have a swap that you are novating or assigning, and by that I mean changing counterparties so you have an existing counterparty and you essentially replace that counterparty with a new counterparty, and you undertake that because of certain circumstances under your ISDA documentation, i.e. an ISDA termination event or most likely a counterparty downgrade or performance issue so if you have assigned or novated a swap for those reasons, then you can treat the novation as kind of a non-event. You can continue on with existing hedge accounting treatment and you do not need to make any adjustments for that.

Outside of that one set of special circumstances, if you assign or novate a swap, or restructure or refund, then you have this event called the termination of hedge accounting. I will mainly focus on what happens when bonds get refunded because I think that is the most common one that people have encountered. And just as aside, when you have refunding recalled, when your swap is effective you are recording the change in fair value every fiscal year and your recording that as a deferral amount or what we call the amount in the deferral account.

The deferral account at any point in time for an effective swap will essentially reflect the market value of that swap as of that time. And when bonds get refunded, what GASB tells us is that the balance in that deferral account must go to zero and you are going to offset that adjustment by similar amount, specifically in the case of refunding, with an increase to the carrying costs of your old debt of the refunded bonds. And that is very similar, I think, to how GASB 23 treat certain costs in connection with refunding's. You can then establish a new hedging relationship with the swap to the refunding bonds.

Slide 32 – Termination of Hedge Accounting Example (56:38)

On this next page, I will frame an example for you so we can talk about the mechanics of what happens when this occurs.

In my example here, we have Variable Rate Bonds that were issued on some date and they also entered into a fixed-rate swap for a fixed rate of 5%. And they received some floating percentage libor. There were no upfront payments in the swap transaction which basically means that the mark to market of the swap on the trade date was zero, or put another way, it was entered into as an on market swap. Let's assume that the swap is also effective, and has been effective for a couple of years. But then over time at some date in the future, you go ahead and refund these bonds. At the time that you refund these bonds, interest rates have since dropped and your swap is out of the money, which I think everybody can relate to who has an interest rate swap outstanding, and let us further suppose that the VRDO bonds that you had outstanding you have refunded with a libor direct purchase bonds. And as a result you are not planning to change or modify your swap because the swap is still useful in that it will go ahead and hedge those libor bonds on a practical matter.

But nevertheless, as mentioned on the previous slide, this does constitute what we call a termination event. And this somewhat tracks tax law, but not exactly of course, but there are parallels between this and on the tax law side.

Slide 33 – Bifurcation of the Swap: Off-market and On-market Components (58:29)

So, just to drill down a little bit more on the mechanics of what happens on the refunding date is, as I mentioned interest rates have dropped. And let's say that interest rates have dropped such that when you look at the value of the swap on that date it is out of money by let's just say, $15 million, and the mark to market value of that $15 million, what that actually is it's the present value of what we call the off market portion of the fixed rate coupon. So you have a 5% fixed rate on the swap and on the refunding date you look at, the first step is to look at the rate that you would pay on a swap if you entered into it on that day that had the same terms as a swap you have outstanding. And as you know if the interest rate would drop, we would suggest that the rate that you would pay is less. In my example its 3.50%, so it's dropped from 5 to 3.50. So the remaining 1.50, the 1.5%, that essentially is the value of the swap on that day, if you present value the stream of cash flows that you get by taking 1.5% of the outstanding, just like with a fixed-rate bond you can project out the cash flow schedules.

So what GASB 53 says is on the refunding date, you have to take a snapshot of the profile, the 3.50 and the 1.50, and as I mentioned on the prior slide, you record the value of the swap on that day, the mark to market amount, as an increase to the carrying amount on your old debt. This amount is amortized over the life of the swap or the refunding bonds, whichever is shorter. So I think many of you are probably familiar with that treatment, again, when you look at advanced refunding's and amortizing things, like call premium and what not on the refunded bonds, in the case of your vanilla fixed rate bonds issue. At the same time, as mentioned, the balance in that deferral account becomes zero.

Whoops, jumping ahead… The swap is bifurcated into these two components: what I will call the on-market and the off-market pieces and a new hedging relationship can be established with the 3.50 or on market portion of the swap. You can still have a hedging relationship and have an effective hedge but you need to kind of start over and reanalyze the swap as if it were a new swap with a coupon of 3.50. So there is a hypothetical population that goes on here.

Slide 34 –Swap Component Values: 1+1 ≠ 2? (1:01:37)

The details of this calculation and some of this I have mentioned but just want to kind of reiterate, you have a swap as a whole, which I will call "Part A" or the entire swap, and now as a result of this termination of hedge accounting, you have two pieces. You have an on-market component which consists of a pay 3.50 received floating rate, and so that is a swap. And that just like the original swap, GASB tells us to measure that at fair value at the end of each fiscal

year. The off-market component however, consists of a pay fixed rate of 1.50, but there is no floating-rate. So it's just a fixed and a terminal stream of cash flows that can be quantified on the refunding date. GASB 53 tells us to record that at its historical cost measurement or its present value over time.

So at the end of each fiscal year now you have two things: You have your on-market component and your off-market component. The off-market component is often referred to as the borrowing or the loan. And the confusion that arises in this scenario is that I think you often get valuation statements from counterparty at the end of each month, for example, and one of those will coincide with the end of your fiscal year. And so I think that your intuition is that, well if your counterparty sends me a valuation statement and tells me the fair value of the swap is $15 million, then what I record on my financials necessarily, whether it is one thing or multiple things, they will add up to $15 million. That I think is your intuition and certainly it would be mine. But that in fact is not the case and this I will try to explain in this chart as to why that is.

Slide 35 – Swap Component Values: 1+1 ≠ 2? (chart 2) (1:03:50)

In this chart, the left bar on each of the five years is the value of the swap as a whole. Let's suppose that that is the value that your counterparty is reporting to you at the end of each of these years. The right bar consists of two stacked pieces: one being the value of that off-market component and the other being the value of the on-market component. And so when you look at your zero, which in this case is to reflect the refunding date of the bonds, the mark to market of the swap as a whole that does in fact equal the off-market amount of the swap. As we said, the off-market is the mark to market of the swap on that day. And that also is consistent with the notion that the on-market swap has a value of zero. So you can see that those two things are nice and neat and equal each other on day one.

But in subsequent years, and this is where sometimes confusion arises, is that in subsequent years for GASB purposes, the values that you report in your financials may not add up to equal the amount provided in your counterparty valuation statement. You can see here that these two items do not equal the mark to market value of the swap. And the reason why that occurs again is because we have this present value basis versus fair value basis in measurement. And I think for good reason a lot of people think that is not intuitive or they don't think it's the appropriate treatment and I can definitely understand that. And so the question is: Which one is correct and why? Certainly, the stacked bar of values as explained is the correct treatment for accounting purposes, but on the other hand the single bar is really more closely approximate to cost to terminate the swap at the time. You may ask yourself, why wouldn't I record the single bar value if that's really what a cost is going to cost me to terminate my swap?

Well, I believe the rationale by GASB is that once you have this bifurcation of the swap, that the off-market component, it really is a fixed-rate liability. In other words, it's a fixed-rate loan, and as we know for accounting purposes when you record fixed-rate liabilities, fixed-rate bonds, etc., on your financials at the end of each fiscal year, you are doing it on a present value or on a par basis, so it's a constant yield. In other words, what you are not doing is you are not finding the

fair value of bonds and recording that at the end of your fiscal year. This is not necessarily true outside of governmentals. Under FASB, the rules are a little different, but currently under GASB that is how it is treated. So, I think both are in fact correct if you will, depending on the circumstances and again this is been an area where we have received a lot of questions each year about why don't these numbers add up to the statement numbers received from my counterparty and please explains that. I wanted to try and relay this to folks because if you do have an outstanding swap, this refunding situation is more than likely going to occur or come up at some point if it hasn't already.

Peter since we are draining on time already, I'll go ahead and hand it over to you, unless we have any questions about the GASB side.

Peter Shapiro: Eric, why don't I take over because I assume we are running short on time, and we will leave questions to the end if that is alright by you.

Eric Chu: Yeah, absolutely.

Slide 36 – Swaps and Floating Rate Debt in a Post-Crisis World (1:08:30)

Peter Shapiro: Okay great, and given that we are running over I am going to try to go through this quickly and run through on the slides. It looks like we've held onto almost the entire audience, which I commend you for. In this event, we've gone through legal and accounting and now we'll go into markets and try to get a little sense of where markets are.

My presentation is really going to try to touch on three things: What is the market like right now? What did we learn from the financial crisis and how should you deal with it? And third, what you should consider now? What makes sense?

Slide 37– Interest Rate Outlook (1:09:02)

Let's look at the first slide if you will. I will try to see if I can get to my next slide here. Excuse me while this takes effect. There is a little bit of a lag time I notice. Maybe if someone at CDIAC can do it…there we go. Okay, first starting with a little bit on interest rate outlook. We have been in an era of the lowest rates in modern history. They are astoundingly low rates. Many of us have gotten used to it now after being in these low rates for so many years. But the truth is this is just an extraordinary period that we will all look back on I'm sure twenty years from now and say, "Boy, I cannot believe how low rates were." Now that being said, fixed rates have already risen by more than 100 basis points (bps), depending on which barometer you use. If you look at the 10 year treasury, we hit a low in the 160's, and we are close to 3% in terms of what happened. This is happening because the Fed is reducing a piece of its stimulus, what they call "quantitative easing", which is the program by which they purchase bonds to try to lower fixed-rates. As they

withdraw that stimulus, as they purchase fewer bonds, fixed rates should continue to rise. This is not rocket science that predicts that, in terms of where rates are likely to go.

Floating rates by contrast, which is the other thing you as a state and local entity or as an issuer should take advantage of, floating rates should stay ultralow for at least another year. The Fed as it has been announcing it is reducing the bond purchase program, the quantitative easing program, has also been more loudly annunciating what it calls its "forward guidance", that is want it wants the markets to know about what it will do with the Fed funds rate, which controls floating rates in virtually all the markets that you deal with. And it has said that those will continue to remain extraordinary low for an extended period. They even went so far, at their last meeting to say, that regardless of how much unemployment drops they will continue to keep this extraordinary low for an extended period. What do we mean by that? We think that means at least another year.

When we look at tax exempt floating rates they are even lower in comparison to taxable floating rates than they normally are historically. We look at the SIFMA index, the predominant index for tax exempt floaters. Right now it's at 4 bps, just unbelievably low levels by any historical measurement.

What does this mean as we look forward? If the economy continues to heal as it seems to be doing. First, fixed rates will go higher and you'll have a steeper yield curve. Second, after a delay we expect floating rates will go higher we will get back to a normal yield curve. But in the meantime, if you are contemplating borrowing on a fixed-rate basis, you should try to speed up your borrowing plans or you should use a hedge, i.e. a swap, to lock in today's rates, for future use.

Slide 38 – Typical Swap- "Synthetic Fixed" (1:12:23)

Looking at this typical swap, and there are many type of swaps, but for simplicity I'm looking at just one. A typical swap is what they call "synthetic fixed." The issuer, in the blue box, pays the swap dealer a fixed rate in return for receiving from the swap dealer a floating rate, and that is used to offset the floating rate cost of borrowing. In other words, the issuer issues its bond in floating rate form. If this structure is used instead of simply issuing bonds in fixed-rate form, the reason being it generates savings and/or it can be used well ahead of time to lock in rate which you cannot do easily in the bond market.

The financial crisis revealed three key weak links in this structure: One was access to the floating rate bond market. We always assumed prior to the financial crisis that the floating rate bond market would be there, it would function well, and it would be relatively economic to be able to access it. That proved to be questionable. Two, swap dealer - that is how strong was the swap dealer? We always knew frankly, that that was a weak link and protected ourselves from it in a variety of ways that the documentation can do. But that proved with various things to be another issue. And finally, basis risk. A technical term, but it's a simple one. It's basically what Eric was previously talking about - about the effectiveness of the hedge. That is does that

floating index match the bond floating rate? How well do those two things line up? The design was supposed to be that those would line up. Well, in some cases they didn't.

Slide 39 – Factor 1: Floating Debt (1:14:11)

So let me flip ahead to the next page and talk about each of these factors. Floating debt - that is how well did that market work? This was the biggest Achilles heel in the market and particularly when you look at the fact that conventional floating rate, what we call VRDO's or VRDD's or VRDN's, need an LOC or liquidity facility behind it provided by a bank so that bond holders know on any put date, on any re-marketing date that they can go back and get out of these bonds if they want to. That's how you maintain pare back.

The problem was the banks themselves had so many meltdowns during this period of time, most of these stemmed originally from the sub-prime crisis. Sub-prime caused insurance companies to fail, caused the auction rate market to collapse, caused a flood of bonds to seek new LOC's, just when there not banks available. Sub-prime also caused repeated bank failures and downgrades. It meant that many investors therefore, started to put their bonds back because they did not trust the banks anymore. It wasn't because they didn't trust state and local governments. It was the banking problem.

There was little healthy bank capacity during this period of time, and as a result an issuer with floating rate bonds had what I would call "rollover terror". Every time they had to roll over their bank facilities, every three to five years, they did not know where costs would come in, what term of facility they could get in, whether it would be three to five or maybe only one year, and frankly whether or not there might be none available at all.

Today, post crisis, which thankfully I believe we are, in the LOC market there are many new players. There's a high degree of availability, there's lower cost. There's no guarantee that that will always be the case. We should always remember what we through. But today we know we've got a good functioning market. In addition, we have competition to the banks before LOC's in the form of alternative floating-rate products, which really does help out in terms of making it so that you're not stuck with only one source.

Slide 40 – Floating Rate Products Today (1:16:27)

The next page goes through this. Let me just skip quickly to show what those products are. That's under number two. Index products- they are private direct purchases by banks who will buy your bonds directly, and sometimes great prices, and then there's a public market that is developed very rapidly for floating rate notes that don't require bank liquidity or bank LOC behind them. There are new products. Barclay's last quarter debuted one called a Variable Rate Obligations, not needing any bank at all. The bottom line that we see when we look at floating-

rate products today are most borrowers, most issuers, are too heavily weighted to fixed, they do not have enough floating rate as part of what they should have on their balance sheet. It's just longer run; it makes sense to have some part of your balance sheet in floating-rate form.

Slide 41 – Factor 2: Swap Dealers (1:17:23)

Skipping to the next factor, swap dealers. As you know of course, Lehman failed, but many other swap dealers were downgraded severely, nationalized. This provoked in many cases terminations, of the swaps that is, and then swaps then had to be replaced. Mostly this was managed effectively by, in our experience, at relatively low cost. But it was often upsetting and turbulent in the midst of one of the most frightening markets in history. Today what's the status? Bank weakness continues. There are still are bank downgrades going on and some strong banks remain and there are some emerging players.

Slide 42 – Before and After (1:18:08)

Take a look at this chart here I've got on page 46. This shows what did the universe look like pre-crisis. Eight big banks dominated, they are all shown in yellow. Look at today and how weak those ratings are. There's not a single AAA bank left. The ones that are rated AA by both Moody's and S&P we're not really major players before the crisis. The only player that is left anywhere near decent in terms of a high rating is J.P. Morgan which has one AA rating and one single A rating. Goldman is the next highest which has all single A ratings, along with Barclays, Deutsche, and frankly many other banks. And then you have banks that are rated in the triple B category by at least one rating agency. Here I list Morgan Stanley along with Citi and Merrill Lynch. Citi and Merrill Lynch actually have trading entities in the single A rating as well if you trade with their banking entity. But there main swap entity historically is now rated triple B.

As you can see at the bottom Bear, Lehman, UBS are effectively gone from this market.

Slide 43 – Factor 3: Basis Risk (1:19:23)

Final factors basis risk - and that is how well did the hedge perform the floating-rate paid by you on your bonds often went high because the floating rate market broke down, because the banks broke down. It exceeded the rate that you were receiving on your swaps. Today it is different. Most bonds are trading extremely well. If it's percentage of Libor swaps is very, very, good because SIFMA's averaging less than 50% of Libor.

Slide 44– Swap Savings – Pre-Crisis Herd (1:19:58)

Now, a couple of quick words on the market today – here this chart shows where people did most of their swaps before the crisis. I call this the "herd mentality." People rushed into the market right at this point. I don't know if you can see my cursor, where there's that yellow circle on the screen. That shows what the savings were between, in this upper chart, the white line, which is where you could have borrowed conventional fixed rate bonds and the orange line where you were able to achieve a fixed rate in the swaps market. So the savings where really near their lowest point but that's where people were jumping into the market.

Now today, look at the next one. Here is where we are right now, the savings are frankly enormous. 170bps vs 30bps and that's building in, as you'll notice here in my not so fine print, a much higher assumed cost going forward maintaining the floating rate bond program. So the savings are enormous. As typical with herd behavior, people run from the market when the benefit tends to be good, and run to the market when the benefit is narrow. It's one of those great ironies of investor's psychology.

Slide 45– Give Yourself Call Flexibility (1:21:13)

What does it enable you to do as a borrower? If you look at it, you can make for a much lower risk transaction by introducing a concept into the swaps that most people never thought to use, which is call flexibility. You know with your 30 year bonds you typically have a tenure call. What we're showing in this page is that you can put even a five-year call into your swaps, give up some yield, give up some of the savings, but still have enormous savings versus conventional fixed-rate bonds. Look on the left. Again no call, 170bps savings, with a five year call 128bps of savings. What does that mean? The risk that you have of having to pay a big cost to terminate a swap early is way lower. The chance you have for refinancing every time rates get better is much greater. It's a much less risky, sounder strategy.

Slide 46– Who Should Do Swaps? (1:22:20)

Final two pages- and that is, we think it's important to recognize that swaps were never suitable for many issuers and are continuing not to be. There is risk and reward that goes together. You have to be sure you can handle these risks. You have to have financial flexibility, wiggle room in case something goes wrong. You have to be able to absorb the administrative burden. If you're a one person finance shop this is probably not a market for you. And you have to understand this stuff. Our test tends to be if the CFO of the issuer can't stand up in front of his board and explain how the transaction works, without his financial advisor constantly having to but in, then you probably shouldn't do it.

Slide 47– Key Take-Aways (1:23:10)

Final page- What are they keep takeaways? If you are going to enter this market, reduce risk and use calls. Number two, assume things could go wrong. Use a conservative carrying cost for your floating rate bonds, a higher number that is, being conservative. Look at the new products that are around, negotiate hard. They're not fixed in cement. Fourth, make sure you have active management of your rollovers of your LOC's if you're using LOC's. Fifth, be very cautious if your ratings are in a lower category; low single A or triple B, again probably not a market for you. And finally, remember what we call behavioral finance; don't be afraid to move differently from the herd, you will usually be rewarded.

So that's my presentation. If there are questions why don't we open up at this point, we have a few minutes left.

Slide 48– Questions and Answers (1:24:10)

Eric Chu: Good work on timing Peter. I'll say that.

Mark Campbell: Eric this is Mark. I am going to let you finish the question process. If you see any feel free to direct the panel to those.

Eric Chu: Sure will. No questions have come in as of yet. So, actually I did have one thing to come back to Nick and Dan about was I don't think that we have mentioned or anyone mentioned the so called "chat letter" that some issuers might have seen, so I thought it would be a good idea to explain what that was and its purpose. And by the chat letter I mean that letter that dealers are sending to certain clients not to amend the documents at that time, but really to open the doors so that they can have a conversation about an idea in lieu of, or in the interim until they actually amend documents, so as a less stressful way of being able to engage the issuer.

Dan Deaton: I have had one of those letters that have shown up that I have, I guess a couple of them. And I don't recall it very well, but obviously there is a chicken and egg problem at times with this when a swap dealer wants to talk to a special entity or any swap counterparty. And when the protocol of whatever documentation is not in place for the swap dealer can comply with the business conduct standards, and I have seen those letters and off the top of my head I cannot remember. I've worked with a couple of clients on those but I don't remember that with such specificity.

Nik Matthews: This is Nik. We have seen several of those and obviously the concern from the dealer perspective is to make sure that they are not making "representation" under the act because if they are charged with additional duties when facing a special entity. And so one of the concerns that we've had in taking a look at those, depending on how they are written, often times, or at least we've seen in the past, they include language that was taken from the protocols schedules. Including languages includes that the special entity has policies and procedures in

place that say x, y, and z. It's a little bit of a concern. If they are able to sign the letter often times they are able to adhere to the protocol.

Eric Chu: Right. Good point, thank you. I just wanted to make sure people are aware that there was yet another something out there that they might encounter. Mark, there are still no questions have come through, so should we close?

Mark Campbell: We do have one question currently. Are you able to access that Eric?

Eric Chu: Yes I am, and I believe the other panelist can as well. So the question that came in is if you entered into a swap eight years ago and don't anticipate novating or entering into a new swap, do you have to do anything now? It seems odd to now engage a qualified swap professional for a swap entered into eight years ago. So it sounds like this seems to be going towards the Dodd Frank regulations.

Peter Shapiro: And QIR in specific, it seems like its asking.

Eric Chu: Nik do you want to answer that?

Nik Matthews: Sure. It seems you have to do anything like we mentioned earlier. You do have to get the LEI number, and you do have to adhere to record keeping requirements. They aren't very onerous to the extent that it's just and a single existing old swaps. It's essentially to gather up the documents that you have. And is the confirmation, an internal approval memo to the extent that you have it and make sure that's its available. But to the extent that you're not novating, terminating, amending or entering into a new swap, then you don't necessarily need to engage a professional to help you through any of those things.

Peter Shapiro: So no QIR needed in this case?

Nik Matthews: Right.

Dan Deaton: The business conduct standard, both business conduct standards, don't apply to swaps you're doing after the effective date which they apply to and so it's not, and I can't remember that exact date, eight years is long before it.

Eric Chu: Thank you.

Mark Campbell: Eric, I think you have one more.

Eric Chu: Okay, so the question about record-keeping of the issuer. We keep our bond transcripts permanently, including the related swap agreements, docs, etc. What else needs to be retained on an ongoing basis by the issuer? That is good question that I will turn over to Nick or Dan.

Dan Deaton: Nik I don't know what your view of this is, but as long as they are keeping a record of each interest rates swap transaction, which from my perspective is the master agreement, the

schedule, the credit support annex and the different confirmations that are there, and keeping the swap transactions, those agreements in place for that period, that suffices for the record requirements. That's at least what we've put in our policies.

Nik Matthews: Yeah Dan. I think that's exactly right. The only thing I would add is, especially with some larger agencies or institutions to the extent that there is an internal memorandum or approval of a committee that might qualify as one of the "comprehensive" records that there looking towards that can be maintained. I guess the only other thing that I would add is, and you should keep that in the same place, is you should also keep in mind that the retention period is until termination plus five years, and the retrieval period, and obviously these are all open inspections by the CFTC, is five business days, But in this case were not talking about an enormous volume, so that shouldn't be difficult to comply with.

Eric Chu: So we are probably not talking about what is often referred to as "payment advice statements", which are the monthly invoices that you, if you will, that are received by the issuer outlining how much is due to and how much is due from the counterparties on a monthly or other periodic basis. It might be a good idea, just as a practical matter just to keep those in the file, if it's not too burdensome, but it does not sound like those are part of the requirements.

Nik Matthews: I think that is right. It can't hurt to retain that to have a complete track record, especially since they use the word comprehensive records regarding the swap. At the same time it does not seem through the guidance that the primary items of interest for the CFTC.

Mark Campbell: With that I think we will end the webinar and I would like to thank Eric, Nik, Peter and Dan for their participation today and Eric and thank you for facilitating the discussion. Thank you to all of the participants and if you would when you do receive an electronic evaluation, please fill that out and give us your thoughts on how we can improve our education programming. And as well if you are on this, you are probably use receiving seminar notifications, if not, please take time to go to our website and sign up to get additional information from CDIAC on seminars and publications. So with that, we are a little bit over, and I want to thank everybody again and we will close out now. We look forward to seeing you again in the future. Thank you.