



WEBINAR TRANSCRIPT

A Double-Edged Sword: The Economics of Pension Obligation Bond Financing for Local Governments

October 24, 2012

Slide 1- A Double-Edged Sword: The Economics of Pension Obligation Bond Financing for Local Governments (00:35)

>>Welcome everyone to the CDIAC seminar double-edged sword, the economics of pension obligation bond financing for local governments. This is Mark Campbell, Executive Director of CDIAC, and this is our second webinar this educational season. So, thank you for participating. We've got a panel of excellent speakers to consider an important topic. The title of which reflects the questions that pension obligations arise. Specifically, the tool has benefits and advantages, but by fixing the liability through securitization of those payments there are some risks inherent in that. We hope to address that, both in talking about the instrument as well as the financial merits of it. I'm going to transition very quickly into our panel and cover a couple of quick housekeeping items and we'll launch this.

First we've got couple of polling questions that we'll cover. I want to let the audience know that you have the opportunity to submit questions throughout the webinar. We will most likely handle them at the end of the program. To the degree that that helps to direct any of the speakers and they have the opportunity to view them, we will try and integrate them, but expect they will be addressed at the end. We've also incorporated a live captioning service into this webinar. You can access that through the web at www.streamtext.net/player?Event=CDIAC. And lastly, to request a certificate of attendance, please let us know by email at cdiac_education@treasurer.ca.gov. So let's start with the polling questions.

Polling Question 1 (02:44)

First, has your agency ever issued a pension obligation bond? Okay, so if you will respond we will try and summarize those results quickly. It looks like 30% have issued POBs. 70%, or a little over have not. So, a 70, 30 mix. Let's go to the next.

Polling Question 2 (03:32)

Is your agency planning on issuing a pension obligation bond in the future? Hoping the mix is going to be a little different. There're a number of people auditing it just for information sake. All right we've got about 23% indicating yes that they expect to issue a POB, 78% no. Numbers do not tally to 100 as we see.

Polling Question 3 (04:10)

And the third question do you feel well informed about the issues surrounding POBs? Our speakers are contributing. Again, about the same ratio, 22%-23% yes, 73% no.

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And the final question, again these questions will help direct. Oh, I'm sorry, that's it. We do have a final polling question at the end.

Slide 3- Speaker Introductions**(04:47)**

So I'm going to quickly transition into our panelists. Facilitating is Thad Calabrese, a professor at New York University, joined NYU Wagner School as assistant professor for public and nonprofit financial management, research and teaching focus on not-for-profit and government accounting and finance. Prior to entering academia, he worked as a financial consultant with nonprofit organizations as well as in the revenue forecasting unit of the New York City Office of Management Budgets. He's published a number of original research products in public finance, public administration, not-for-profit and accounting journals. With him is Rob Larkins, managing director Raymond James, Morgan Keegan. He is the managing director in the western region office in San Francisco. With over twenty-seven years of experience in California public finance market, some of his clients include the cities of Anaheim, Fresno, Richmond, San Bernardino, San Diego, specialized in pension and retirement benefits funding solutions since the 1990s. Gina, make it, Jenna Magan, I'm sorry, is a partner with Orrick Herrington and Sutcliffe, chair of the public finance departments higher education and health care practice group. With over 20 years of experience, she's acted as bond counsel, underwriters, issuers and direct purchasers counsel on many public finance transactions for state, locally and nonprofit entities. And last Brian Whitworth, senior vice president for Southwest, located in Santa Monica, where he specializes in other post-employment benefits, pension analysis and related disclosures for many states, counties, cities, utilities, authorities, school districts and organizations. He works frequently with actuaries and legal counsel and has built extensive simulation models for pensions, OPEB costs and general fund revenues. With that I will turn it over to Thad.

>>Thanks, Mark. I will try to keep it brief so we can get immediately to our presenters. Just to reiterate the point if you have questions feel free to ask them along the way. If there are questions to clarify a concept we will try to handle it immediately. If it is something that's going to be covered later on, we will obviously defer the question until later in the presentation. The attendees should also be aware that on the CDIAC website under the recommended reading there is a research brief that I co-authored a couple years ago on the topic of pension obligation bonds with the Center for Retirement Research that is available on the CDIAC website, so you are encouraged to go and download that piece if you have not already.

Slide 4-Webinar Objectives**(08:02)**

With that, we'll start our presentation. The objectives of the webinar, excuse me, are basically just to give you a background on the governments usage of pension obligation bonds and to lay out some factors to consider before issuing the bonds and factors to also consider after you've made the decision to issue in structuring the bonds. And then how to assess performance of the pension obligation bonds after the issuance. So it is very much a before, during and after objective with this webinar.

Slide 5-Public Pension Costs Are Increasing

(08:39)

Why this topic? Well the topic has been around for a couple decades, but the reason why pension costs are increasing and continue to rise despite some increases in market return lately. Some pension systems have lowered their expected earnings assumptions, which increases the long-term liabilities. Also some other demographic assumptions have also been adopted by pension systems, longer retirements for employees, for example. Investment returns have been volatile and at the same time revenues, although they have started to creep back up for many state and local governments, revenues have generally been down or flat. Needs have increased, whether it is unemployment or other spending needs, they have increased which has led the increase in pension cost to be felt throughout the entire budgetary process.

Slide 6-Managing the Stress

(09:42)

So in this context of stress, governments have basically three options on how they are going to deal with their pension costs. They can either pay the required cost, which has been increasing and reduce other services, which is always not an attractive feature, or they can increase taxes which is a less attractive feature to many public officials. They can pay all or part, they cannot pay all or part of the required pension cost. This option obviously does not exist for all governments depending on the pension system they participate in. The third option is the reason that we are here. They can fund the pension cost, and/or the accumulated pension liability with pension obligation bonds. This shouldn't diminish the other options that some governments have turned to, which are the changing of benefits for current retirees for example, not providing current retirees with ad hoc cost-of-living increases, or also passing on the pension cost to the employees through increased contributions.

Slide 7-Who Has Used POBs?

(10:58)

Most Pension Obligation Bonds have been issued by small local government. You can find some of this in that CRR report on the website. School districts have been a fairly extensive issuer of pension obligation bonds. The issuers because they are small the bonds tend to be small, most pension obligation bond dollar value measured through the bond issuance is through the state level. The State of Illinois has issued several, Connecticut, Wisconsin, Oregon. The governments that have issued pension obligation bonds tend to be financially stressed. By that I simply mean they tend to have outstanding debt that is in excess of peer governments and governments that probably should not be issuing because of stress are the ones that actually have in many cases. Again, most of this can be found in the CRR report.

Slide 8-Questions To Consider As A Government

(12:03)

Lastly some questions to consider as a government prior to deciding to issue a pension obligation bond. If markets do not improve over the next few years or decline and no savings are realized, how will we finance both pension obligation bond and/or ongoing pension costs? What if we lose significant money? Another important question is how taxpayers might feel if we lose money? Are taxpayers going to have certain opinions about us losing public dollars that we've been entrusted to? And the final question, this is more of a rhetorical question, but why are we considering bonding out a routine operating cost? Pension costs are a cost of doing business. Is it symptomatic

of deeper fiscal problems and can we or should we be addressing these instead to avoid taking on the additional risks that we just mentioned above?

Slide 9-Panelist-Jenna Magan

(13:06)

With that I believe we are going to move into our first panelist, Jenna, from Orrick. Thank you, Jenna.

Slide 10-What Are POBs And How Are They Used By Local Agencies In California? (13:17)

>> Good morning to all of you interested in pension benefits and how to fund them. As the first speaker, I've been asked to start by defining pension obligation bonds. So we can move to the next slide, thank you, often referred to as POBs. That's very easy. POBs are bonds issued by a state or local government, the proceeds of which are paid to a pension fund to which employees of the issuer belong. In California that's probably going to be CalPERS, a 37 act county pension fund or a charter city pension fund. Interest on POBs is not exempt from federal income tax because the bond proceeds are not considered to have been spent when paid to the pension fund. Instead they are deemed to be invested by the pension fund for the benefit of the issuer. So they would be arbitrage bonds in IRS parlance. POBs are used to pay a portion of the issuer's unfunded accrued actuarial liability, called UAAL. This is the amount which if paid in today assuming investment income at the assumed rate, which we will come back to, would cover pension benefits already earned by retired and current employees based on the various assumptions of retirement age, longevity and the like. Pension bonds can also be used to pay the normal annual contribution to the pension fund with respect to benefits earned by current employees covered by the fund. Or POBs can be used for both. Next slide.

Slide 11-What Options Are Available For Structuring POBs?

(14:54)

As I am the lawyer on the panel, I have been asked to explain the alternative legal structures that may be used for POBs. I'm going to focus on California, first because I understand almost all of you are in California, and second because California accounts for the largest number, or larger number of POBs than any other state, some hundred issues during the past decade alone. As we turn to the legal structure, let's divide the role into two categories by type of issuer. On one side we have cities and counties because they are subject to Article 16, Section 18 of the California Constitution that prohibits these entities from incurring a debt or liability without a vote of the electorate. Second is everyone else, for example special districts such as fire districts or transit districts because they are not subject to this constitutional debt limit.

Looking first at cities and counties, if they cannot incur a debt or liability without a vote, then how do they incur the pension obligation in the first place? Well, there are several exceptions to the constitutional debt limit. The one in the Constitution itself is for debt payable from revenues attributable to the fiscal year in which the debt is incurred. In other words TRANs or tax and revenue anticipation notes. Many cities and counties do use TRANs directly or indirectly to fund their annual pension contribution as part of cash flow management, but these TRANs are not considered POBs. Other exceptions to the constitutional voter requirement for debt have been created by the courts. One of those is for revenue bonds. They are considered a debt of the revenue enterprise, for example, a water or sewer system, and not of the city's general fund.

Leases are another example. Those are not considered debt because the rent abates in the event the leased property is destroyed, meaning that rent is contingent on the ability to use or occupy the leased property.

And the one relevant in the case of POBs is called obligation imposed by law. That type of obligation is not considered to be the type of discretionary debt that the constitutional debt limit provision was aimed at controlling. So the obligation of the issuer to the pension fund is an obligation imposed by law. And the POBs are typically issued as refunding bonds under the local agency refunding law to refund a part of the existing pension obligation. Because the obligation imposed by law exception to the constitutional debt limit is less developed in the case law than other judicially created exceptions, like the ones for revenue bonds and abatement leases, and because we need to treat the refunding bonds as standing in the shoes, meaning that the refunding bonds have the same obligation imposed by law characteristics as the refunded pension obligation, a validation action is undertaken to validate POBs for cities and counties because they're subject to the debt limit issue. A validation action is not required for local governments in California other than cities and counties, but the structure is usually the same, namely issuing POBs as refunding bonds to partially refund the underlying pension obligation.

There are also a couple of alternative legal structures that have been used for POBs that do not require a validation action, even if they are issued by cities and counties. One example is an appropriation contingent bonds, those are not considered debt for constitutional debt limit purposes because there's no legal obligation to pay the POBs, as payment is contingent on the annual appropriation by the city or county to pay them. Another example is lease leaseback bonds. Remember that I mentioned that leases are not considered debt for constitutional debt limit purposes. So a city or county can lease property to JPA or other entity, lease it back, and then that entity sells bonds backed by or certificates of participation or cops in the leaseback and the proceeds can be used to fund a pension fund. We will move to the next slide.

Slide 12-Why Issue Taxable POBs?

(19:29)

So why issue POBs? Historically the main reason has been interest-rate savings. The pension fund is charging you an implicit interest rate usually equal to the assumed rate of the investment return. If the pension fund actually had your money, that is the rate they would expect to earn on it, and since they don't have it, the theory is that is the rate they should charge you for maintaining an unpaid balance. Since the assumed rate is generally between 7 1/2 and 8 1/2% if you could issue POBs at say 5 or 6% you could theoretically save a lot of interest cost. Some pension funds offer discounts for early payment of the annual contribution. Typically the city, county or district makes quarterly or other periodic payments to the pension fund throughout the year. If they were to pay all of it at the start of the year, the pension fund has a whole year to invest it and some offer discounts to induce such early payments. A very common reason issuers have turned to POBs in the last several years has been budget relief. The amortization schedule of the POB need not bear resemblance to the amortization schedule of the underlying pension obligation. So the POBs may be longer in term and may push out debt service to future years resulting in some budget relief in the early years.

Other reasons why POBs have been issued include to take advantage of the much broader investment powers that a pension fund has compared to the powers that a city, county or district has. And the pension fund also has a very diversified portfolio, which together enables the pension fund to achieve higher investment returns than the city, county or district could do, and they hope much higher than the interest rate on the POBs. We refer to this as risk arbitrage and we will come back to it on the next slide. A second reason that POBs have been issued is to comfort employees that their pensions are not dangerously underfunded. There is a flipside to this as well and I will touch on that on the next slide. A third reason to issue POBs is to achieve a level of funding which experts consider prudent financial management, something around 80%. All right, let's move to the next slide.

Slide 13-What are the risks?

(22:02)

If those are the benefits or reasons to issue POBs, what are the risks? I mentioned before this concept of risk arbitrage. If you borrow at 5 to 6% expecting to save money because the pension fund is only charging you 8% on the assumption that that is what they're going to earn on any monies in the fund. So you expect to earn 8% or so, but at least more than the 5 or 6% you are paying on debt service on the bond. CalPERS and many other pension funds averaged double-digit returns through most of the 90s, but took high losses in the financial crisis and earned only 1% or so last year. Returns are not guaranteed. You will not know whether you have won or lost this arbitrage bet until the end of the term of the POBs when you can look back and compare pension fund earnings with debt service over the full term of the POBs. For example POBs issued in 1999 just ahead of the dot com meltdown were in the red for number of years, but most had returned to positive territory by 2005 or 2006. I haven't seen any studies of where they are now, but it won't be for another 7 to 17 years depending on whether the 99 bonds had 20 or 30 year terms that you can total up the scores. This is a major risk; actual investment results. To some extent, the risk is exacerbated by making a huge lump sum investment at a single point in time. To address this risk, some have tried to spread the investment of the POB proceeds over a period of months. You may have some flexibility in your pension obligations to change applicable assumptions or take a holiday or partial holiday from making annual contributions to the pension fund, but you can't do that with a pension obligation bond. So you are trading one obligation that may have some flexibility with another that does not. Another risk is that most POBs are non-callable so they cannot be easily refunded if rates drop or you decide you want to pay them off for some other reason. It's been a few years but there was a time that payment of POB proceeds to pension funds and the high return on investment of the proceeds led to over funding of pension obligations which in turn created an opportunity for labor to ask for more benefits. No one today issues POBs to fund 100% or even 90% of the UAAL. So I'm going to turn it over to Rob Larkins now to continue our discussion.

Slide 14-Panelist-Robert Larkins

(24:47)

>>Thanks Jenna, and thanks to all of you for dialing in and thank you to CDIAC for putting together this very topical webinar. In my module I've been asked to address the following issues related to the economic conditions that make POB issuance more or less adventitious, market factors and sizing considerations for structuring POBs and the question of fixed versus floating and callability. Some of what I'm going to discuss Jenna has touched on, but in we go.

Slide 15-Economic Conditions That Make POBs More (Or Less) Advantageous (25:19)

So in the first slide in terms of the economic conditions that make POB's more or less advantageous, there are multiple reasons why issuers might consider POBs. Among them would be budget relief, enhancing the funded ratio, or a transition to a defined contribution which I think that is a topic that we will be hearing more about over the next few years with pension reforms seeming to be in the air nationally and certainly in California. Generally, as Jenna noted, it's advantageous to issue POBs when the cost of funds is less than your actual earnings assumption, which is the embedded interest cost borne by the employer for carrying the unfunded liability. But as we have heard, and I think you will hear throughout this webinar from all the speakers, the ultimate benefits will only be known over the longer term depending on the actual earnings as opposed to the actuarial earnings assumption. There is a category of UAALs which are different, and those of you who are on the phone PERS side fund members may know of this, and those are different I would argue because of the legacy UAAL that was put into the side fund when PERS created the risk pool is amortized as a fixed rate obligation, and the investment gains and losses are born by the rest of the risk pool.

So earnings below the assumed rate if you do a POB and give the money to PERS and they under earn the 7 1/2%, it will not create a new UAAL for the side fund obligor, though if you had a larger plan that was in the broader risk pool you certainly could realize a new UAAL for other plans. However, as is often the case in muni(?) land, circumstances are evolving and it does appear there's a new wrinkle in side fund payments due to the implementation of pension reform under AB 340. As we understand it, the legacy UAAL will not change, but because payroll will be ring fenced or would be ring fenced by new tiers of benefits there's likely to be some disparity between an employer's actual payroll and the payroll that PERS uses to compute your employer contributions. So there is a new variation if you will in the linkage between a payroll and what you actually have. So we would encourage folks who are thinking about side fund POBs to work with their independent actuarial consultant to try to get their arms around that.

Slide 16-Lagging Valuations And Smoothing Methodologies Muddle Nexus Between Market Performance And Issuer Contribution Rates (28:04)

Another important issue that impacts plan sponsors whether they are thinking of POBs or not is the lagging valuation and smoothing methodologies that tend to muddle the nexus between market performance and issuer contribution rates. And again, using CalPERS as an example, but I think the same is true of the 37 acts and the stand alone city funds. Here we show in the graphic that the last market valuation that PERS has done was based on result at end of fiscal year June 30, 2011. They would use those valuation results to generate the actuarial evaluations that are sent to employers. Currently I believe they are in the process of getting those out this month, and those will tell employers what their contribution rates will be for next fiscal year i.e. fiscal 13-14. So there's a two-year lag between market performance and your contribution rates and the budget impact of those. Further, PERS uses a 15 year smoothing of its normal investment performance which is intended to dampen contribution rate volatility. Many of you, if any of you, were at your current employer during the dot com boom, there were several years where there was a complete holiday for making contributions to PERS and then many of you experienced employer contribution rates that shot up into the high 20% level, and obviously the budget pain of that was very acute. Additionally, PERS uses corridors to reduce rate shock. And corridors address the relationship

between market and actuarial values, but those corridors can be widened or narrowed pretty much at PERS discretion. So the take away on this slide is in evaluating the merits and risks of POBs, it's important to consider a longer horizon than last year's stock market performance.

Slide 17-Ideally, Borrow When Rates Are Low And Equities Are On Verge Of Sustained Rally!
(30:17)

On the topic of when is it advantageous, ideally you want to borrow when rates are low and before the stock market is on the verge of a sustained rally, and of course if all of us knew when that was, we would be doing something else. But what we try to do on this slide was to show that relationship over a long period of time. With the bars being PERS actual earning rates, those are not smooth. The red line on this graphic is the actuarial earnings assumption which has been lowered to 7 1/2% from 7.75, and the blue line is the 30 year treasury. So if you look at the blue versus the red, that spread is a proxy, and it's important that that is just an indication of the potential interest-rate savings from a POB relative to the 7 1/2% earnings cost or earnings assumption that PERS charges issuers. And of course, the vertical bars give you a sense of the investment risks and opportunities. So as Jenna mentioned, if you had issued POBs in 1993 or 4 it looked very good for several years. If you issued in 99 or 2000 not so much and that is really the central risk on the product.

Slide 18-However, Treasury Rates Are Only Part Of The Equation—Credit Spreads Are Equally Important
(31:43)

As I mentioned treasury rates are only a proxy and that is just part of the equation and if you are issuing POBs you will be borrowing at a spread over treasuries. So what we try to illustrate on this slide is looking back over a longer period of time, when different issuers access the market, what their cost of funds was relative to treasury to try to show how different markets cycles, though spreads will widen or narrow. So for example going from 93 of Sonoma's first California taxable pension bond to the most recent large issued by the city of Oakland in the 5 year range, so the light gray, when Sonoma issued their first POBs in 93 and in 5 years they had to pay investors 53 basis points over the five-year treasury. When Pasadena came a few years later, that was plus 99. Riverside which is probably the frothiest part of the market before the meltdown, when interest rates were very strong, only had to pay 43 basis points over. And Oakland recently had to pay 175 basis points over, and that is both a function of where taxable investors are looking at municipal risk compared to corporate risk generally and specifically in California and certainly coming in the wake of Stockton's filing. I think there are a lot of concerns about what is the nature of the security. And if you look at the longer rates, it's remarkable to see Riverside borrowed at 84 over treasuries at 20 years. So those in considering POBs it's not just where are treasuries, but where do bond investors view these credits relative to the risk-free treasury benchmark and certainly in the last couple years, certainly in the last several months, investors have been demanding a much wider spread.

Slide 19-Understanding UAAL Amortization Methodologies: Triangles, Rectangles, And Hockey Sticks
(33:48)

Another point, and you will hear a common theme whether you are considering bonding or not, it is important to understand what goes into determining your costs as an employer since most of

what municipal budgets are spent on are salaries and benefits. So this slide discusses the issue of the different UAAL amortization methodologies and what I refer to as triangles, rectangles and hockey sticks. The actuaries will back into an employer contribution rate that you, the city, or county or plan sponsor will be required to pay expressed as a percentage of payroll, which is intended to be sufficient to retire the unfunded liability over a finite period of time. If, and there's a reason if is capitalized, if all the actuarial assumptions are met, but the idea is to figure out what percentage of a growing payroll if you paid that each and every year would be sufficient to retire the UAAL over the defined amortization horizon. Important to understand is that methodology, and there's obviously lots of assumptions that go into it, but there's an assumption that payroll is growing at a constant rate. In the case of PERS they are currently using 3%. Your actual experience in your city may be more or less than that, certainly in the last few years of budget cuts we've seen many California local agencies where payroll was growing at a much slower rate or in fact shrinking. So again this is one of the noise distortions that is important to understand between your budget and the PERS schedules. PERS is trying to do their best for 18 or 1900 separate plans so they really cannot customize it.

The most common amortization methodology outside of PERS is what's referred to as a level percentage of pay, which as it sounds if we pay a constant percentage of a growing payroll over time we will pay it off. And the resulting cash flow from that is shown below is a right triangle. That if you have a growing wedge of payroll costs and you are taking a constant percentage of that you would get a cash flow shaped like the blue triangle on the left. Whereas a level payment, as the name would imply, gives you a payment shaped similar to the rectangle in the middle. And the hockey stick is what results from the PERS 30 year rolling amortization, where in fact the payments that are charged to the local agency are less than the embedded interest cost resulting in perpetual negative amortization. So you are paying a very thin slice which from a budget standpoint you probably like, but from a financial management standpoint you're not actually addressing the balance of the unfunded liability.

One thing that is important and we certainly see this sometimes in city councils and county boards where folks who are less informed will get upset about seeing negative amortization if they actually look at the numbers. And it's important to understand that for a typical level percentage of payroll methodology that is not amoral or illegal or evil. It is just the math that if you have a constant percentage of payroll that is growing at three, payroll needs to catch up and get bigger to where the resulting cash flow is more than the interest cost. So it is somewhere typically in the 15 to 20 year range that you go positive on amortization and actually start to pay that down and we try to show that on the next slide.

Slide 20-Comparison of Approaches: \$50 Million UAAL

(37:44)

On the left is a \$50 million UAAL assuming a 30 year closed amortization period. On the left side we show the payments that the employer would be obligated to pay to amortize that over 30 years and the level percentage of pay is the blue line you can see starts around 3 million gross to 7 1/2. Level of payment is roughly 4.2 million and it's constant. And the PERS 30 year rolling starts at 3 and grows very slowly. So you might say gee, we like that one. It is better from a budget perspective, but as we see on the right side in terms of the balance of the UAAL starting at 50 million, level percentage of pay in the blue, though it is hard to see on the graph, but it actually grows a little bit. So the balance swells a little bit until you get out to around 20, 27 when you start

to chip away at the balance and close it out by 30 years. Level payments you are making progress each and every year along the way whereas with the current 30 year rolling PERS after 30 years, if you've paid everything they asked you to pay and all assumptions are met spot on, the UAAL would actually have grown by about 56%. From a financial management standpoint you are kicking the can if you just make the payments as are asked.

Slide 21-Structuring Considerations: Solve In A Silo Or Holistically

(39:18)

The next slide in terms of structuring considerations, is it beneficial or correct to look at the UAAL in a silo or look at it holistically i.e. in the context of your overall debt and or other fixed obligations of the obligor? There's no right answer. I think it's important to understand that there are different ways to solve the problem. The original vintage of POBs in the mid to late 90s were generally all structured to produce savings or expected savings versus the then existing UAAL amortizations. And your typical shape on those POBs was a shark fin reflecting their remaining terms of existing of finite level percentage of pay amortization. For example in San Diego County in 1994, they refinanced the remaining 13 years of a 30 year amortization that had begun in 1977. So the county looked up prudently and said we've got another 13 years to go. We would like to have the term of the bond matched the term of the UAAL. We are not extending anything. But as you can imagine when you have a level percentage of pay when you get to compounding as you get to the out years of a 30 year window, the payments get pretty steep. So if you were to take those bonds and layer them on top of their other municipal debt outstanding at the time, you can see there's a pretty big drop off that would occur in 2007. Again there is nothing wrong about this, it's just in terms of budget management about looking at the long-range, it is a pretty big drop which would be a good thing. It would be great to be the finance director in 2007, but from an inter-generational equity and long-range budget planning standpoint, one might look to integrate the POBs with the debt. And again there was a pretty level debt structure there to start with, but if you are an agency with a very chunky debt structure that drops off it may make sense to look at layering in the POBs on top of that. So from a total debt service perspective, as a percentage of budget, things are a little more manageable.

Slide 22-Fixed Vs. Variable?

(41:51)

CDIAC also asked me to discuss the issue of fixed versus variable. And again stepping back from the bonds and thinking about how a pension is funded and UAAL is amortized absent POBs, given what we just discussed it's typically done as a percentage of payroll. That might inform one's decision on how to structure the debt. Internally, we often see, I think it is generally the rule or the norm, is that the costs are allocated to departments and are embedded into the departmental budget so that the payroll and salary and benefits are born departmentally. For primarily counties who do more social services functions subject to a thicket of conditions, pension costs are an allowable expense for claiming reimbursements from the federal and state program. There's the famous A-87 circular that talks about some of the rules on that, but again keeping in mind other operational and financial considerations of the plan sponsor beyond just the debt question. In terms of fixed versus floating, I would have to ask with fixed rates so low what would be the upside of doing variable? Certainly variable rates are extremely low, but it's hard to imagine them going any lower or staying this low for a long period of time.

So we would ask is the goal in considering variable one of cost or preserving callability or both, but

as Jenna mentioned earlier, those who did POBs in the early 90s and 2000s which were generally non-callable when interest rates dropped in the last several years look back ruefully at the decision to have issued on a non-callable basis. My perspective is that intra-year variable-rate exposure present significant budgeting and accounting issues and it's a reimbursement claiming nightmare. You can imagine again if you did not have POBs, if the payment obligation to PERS or to your 37 act system changed during the fiscal year it would be crazy. And so I think that is the issue we think about and of course what we think about is if you do variable-rate POBs and you are trying to charge those costs back to the departments that claim, putting that into your payroll system as a percentage of payroll could be pretty tricky. Our view on this, and this is presupposed that you have gone through the methodology and decision process to decide if the POB makes sense for your agency, if you really want variable-rate exposure or short callability than doing a floating rate product that was annual and synced up to your fiscal year would be a better mousetrap than through VRDN or index notes that might reset weekly or monthly.

In terms of POB refinancing volume, it's been virtually nonexistent despite being at historically low interest rates because the vast majority of those issues were issued with make whole calls which are effectively non-callable from the issuers' perspective. I think, and anyone who has done a POB and refinanced it knows of what I speak, that the claiming rules for getting reimbursed on refunding of POBs are truly Orwellian. So be careful as you think about that. I think looking back over a longer period of time, any issuer that embedded a quote "muni call" i.e. a 10 year par call into a POB or a taxable muni looks like a hero, but that they were able to take advantage of today's rates, and I think in retrospect paying 20 25 basis points for that call option was a great bet.

Slide 23-Reinvestment Issues

(46:12)

Briefly on reinvestment issues, I think Brian Whitworth is going to get into this more deeply, but it is important to keep in mind that for most issuers, reinvestment is out of your hands, both legally and from the fiduciary standpoint. That responsibility rests and also asset allocation and investment decisions rest with the plan i.e. the pension fund, not the employer and yet that is the primary risk. So it is an interesting dynamic that you really have no control of the primary risk even if you wanted to. For those of you with closed plans, legacy plans, typically see that. We see that with cities in general that may have had their own plan prior to joining PERS. Those do really present unique challenges because you've got a close population and your typically in a runoff mode where there's nobody joining the system. So you're really trying to just fund the benefit stream. So it's very important to evaluate the asset base in terms of what do you have, excuse me, currently in the bank if you will versus the projected benefit payments and to look at the burn rate i.e. the payout projections to retirees relative to the money you currently hold. And we would ask does it make sense to reinvest in equities that would need to be sold in the near term perhaps in 3 to 5 years to pay benefits. That strikes us as doubling down, and that really when you are in a runoff mode you want to be heavily weighted toward fixed income. So we ask here, can you earn 7% when 2, 5 and 10 year treasuries are yielding .25, .65 and 1.69, and I think that is really troubling when we see closed plans with very high investment assumptions given the duration of their benefit stream, and I think perhaps the best quote that I can leave you with that I stole from an actuary is that you can't pay benefits with assumed earnings.

Side 24-Conclusion

(48:38)

So in concluding my section, I'd like to make the point that evaluating the risks and benefits of POBs is considerably more involved than simply comparing the existing actuarially assumed earnings rate versus your cost of borrowing. POBs are very situation specific. There are a host of complex underlying actuarial dynamics to be considered whether you issue POB's or not, and we strongly recommend that the finance team should include an independent actuary. Issuers need to go into POBs with their eyes wide open and understand that savings is a long-term proposition. Thank you.

Slide 25-Panelist-Brian Whitworth

(49:28)

>>Okay, so I am Brian Whitworth with first Southwest and I'm going to talk a little bit about some numbers and some disclosures and some changes in accounting rules. So if we go to the first slide here, what you will see is that the counts of pension bonds. Can we go to the next slide?

Slide 26-Summary Statistics On Pension Bonds

(49:53)

The accounts of pension bonds have varied a lot from year-to-year tending to hit peaks slightly after recessions is one of the patterns that you see. We projected forward 2012 and it looks like 2012 will actually have more pension bonds than you have seen in most recent years. In total, you can see almost a quarter of these pension bonds by volume came from California and over the years there were 560 of them since 1990 that had public OSs.

Slide 27-States Where Pension Bonds Have Been Issued

(50:33)

And on the next page you can see that they were issued in 31 states, actually 30 states and Puerto Rico. So you see that on the map on the next page. And some of these states you will find that only particular entities can issue pension bonds. In some states you have to go to the legislature, each locality to get authorizations to do it. Other states have broader authority and essentially anybody of any type, regardless of whether you were a small school district in a northeastern state, or a big city, or a big utility in some states, that you could go out and issue regardless of who you were. Now if you go somewhere like Texas there are limitations on who can issue and it has to do with size and type of entity.

Slide 28-Will The Pension Fund Have Higher Returns Than Pension Bond Borrowing Costs?

(51:32)

So echoing some of the prior presenters on the next page, it is certainly not the only issue, but you will often run into people, elected officials for example, who are asking how is our pension bond doing so far and if you've issued a fixed-rate pension bond which is most of them recently. You will have this interesting crossover pretty likely of some years. It looks like the investment returns have been better to date than the cost of borrowing, and other years not. Also echoing what a couple of prior presenters said, even if you have unlimited fundings from the IRSs standpoint, which you do not get over on the tax-exempt side, if you've got calls they are usually market or a make whole call, so they seldom give you direct relief just in the interest rates. You might get some other relief that you want to change some other term, you want to change the length, you want to change the payment stream, something like that so it could be worthwhile in some circumstances. We've also seen a few attempts to just buy some of these at market. So far the ones we've seen have not

gotten really high participation rates. But under some circumstances you might want to try; you might get lucky. For people looking at issuing any new bonds, one of the standard cautions is prepare your governing board. These numbers will move around from year-to-year and on the next page we've got an illustration of two actual deals.

Slide 29-Two Examples Of Pension Bond Borrowing Costs Vs Cumulative Investment Returns Since Bond Insurance (53:20)

The one from early 1994, the first year they would've given bad news to the board. It looks like it did not return as much as our long-term borrowing costs. From thereafter it looked good all the way out even to 2012. And that's with a bond with the TIC of almost 7%. Now if you had issued in 2005, it is kind of the opposite situation. The year after you issued it looked pretty good, and then it didn't look so good. And still, to date, the return at the retirement system is less than the borrowing cost even though the bond TIC was more like 5%. Now if that was a more recently issued bond, it probably would've had a TIC more like 4 to 4 1/2%. So the borrowing cost hurdles have gotten lower, but you still have problems. Are you going to be able to get high enough returns?

Slide 30-CalPERS (54:30)

When you go to the next page you see that CalPERS returns if you are tracking this over the years are mostly positive. On average higher than their currently assumed rate of return, but definitely volatile. The graph over on the right, I've redone their calculation. Rather than just selecting certain time periods like 5 years and 10 years, I've calculated all of the investment returns to date through 6-30 of 2012. And you can see by this chart over here on the right, that this is something that can muddy the public debate. People ask: Well CalPERS has an assumed rate of return, what are their actual rates of return? And you see how incredibly sensitive it is to the time period. Somebody says well what has the return been over the last year? About 1%. How about over the past couple years? Over 10%. How about going all the way back to the mid-80s? Well, over 9%. So you can get advocates shopping for numbers that they like by doing these types of calculations. You can also get real internal debate about what you are likely to see going forward based upon what you have seen historically. And my personal view on this is the part most likely to carry forward is the volatility, and then there's a big debate about what will the nominal rates of return be going forward partly because the inflation component has been going down over the longer term.

Slide 31-Causes Of Changes In Unfunded Liabilities And Contributions (56:24)

Now the returns at CalPERS for example, if we go to the next page, are not the only thing that would affect your future contributions whether or not you were to do a pension bond. I developed this chart because I never found any actuaries who had this chart, but what you see here is in the short term investment returns have the biggest affect on unfunded liabilities. This applies both on pension and OPEB sides, should anyone be thinking about an OPEB bonds. But in the longer term there are also big components to things like COLAs, life expectancy and the age of retirement starting to move around on you.

One of the underappreciated variables here is in difficult budget times or in low inflation times,

wages and salaries don't rise as fast as expected and it makes the unfunded liability go down, all other things being equal, it makes your contributions go down, all other things being equal. And then towards the bottom you also see the possibility that some change in federal law or accounting rules would affect your unfunded liabilities. I've been doing a series of education and seminars on this and the new accounting rules and the Moody's proposal, if we go to the next page, are often misunderstood even by people who are trying pretty hard to understand them.

Slide 32-New Pension And OPEB Timeline – Updated August 2012

(58:10)

This timeline shows 3 related things going on. Up on the top in black, you've got the GASB pension changes which have already been approved; they have already sent out the text. The implementation book is not out yet. The plain language statement is out so you can read a lot on this, but you will be reading hundreds of pages. The details of the implementation take a lot of time and effort and work among issuers, actuaries and accounts, and you will get very different disclosures than what you got now. Interestingly, just a week after GASB approved those new rules, Moody's said they were, for Moody's purposes, going to do an alternate set of calculations, which look much more like the corporate calculations than the public sector calculations. They had a deadline for comment; they ended up moving it out. They moved it to September and got over hundred comments. And then we have not yet heard back as to what Moody's final method will be. But it is something that if Moody's actually implements rather similar to what they propose, because they would say that unfunded liabilities were larger than were reported at most public entities it would affect the debate over pension bonds, though not anything in your CAFR official statement or bond validation. However, if you think you have a \$100 million unfunded liability and Moody's does a completely different calculation and says you have \$300 million liability, and your board or council starts to discuss this, it can make it a much more difficult discussion. Down at the bottom for those of you on the OPEB side, you'll find that probably GASB is going to do something similar on the OPEB side to what they are doing on the pension side now. So on the next page let's talk about what the new GASB rules will change.

Slide 33-What Will The New GASB Rules Change

(1:00:42)

Your accounting entries in your CAFR will be different than your actuarial funding calculations. This is called the divorce, and even if you try pretty hard, you can't make your CAFR match your actuarial numbers anymore. Up until now you've been able to keep these rather close. You will have longer disclosures, lots of new terms to explain to lots of people. Remember that you will be explaining them not just to investors and rating agencies, you will also get to explain them to councils, boards, taxpayers, often employees, retirees etc. The unfunded liabilities will make their way on to the balance sheet. In talking with all three rating agencies on this, the predominant opinion is that just the GASB changes will not result in rating changes. So occasionally something will turn up that will make a rating change more appropriate, but do not expect wholesale rating changes due to implementation of the rules in a couple of years.

There's a lot of discussion about something called a blended rate and discussion about applicable discount rates. We've talked to CalPERS about this for CalPERS members, it is pretty unlikely that any of the local members will have to use a different discount rate than the assumed rate of return. Now, that's not necessarily true of all the local systems. If you are a plan which is not nearly fully funded, if you have a long amortization and you haven't typically fully funded the ARC, then

yes, you might end up using a blended rate. And the number being blended in with your assumed actuarial rate of return is probably going to be something like AA, MMD, 20 year and that number has typically been under 4% during the past couple years and often under 3%. So it can make a very big difference. You will also see that the annual required contribution no longer shows up in your notes or financial statement. It can be back in the supplementary information, but it will not be the primary disclosure. And of course, all of this will take increased staff time. For those of you who have a 37 active retirement system, local city system, district system, don't be surprised if your retirement system is asking for increased staff, more money for outside actuaries and accountants; it would not surprise me at all.

Slide 34-Will The New Standards Affect Funding?

(01:03:51)

Now on the next page another question is will the new standards affect funding? As GASB was going through the new rulemaking process at every public meeting, at every conference call they had there was something close to this disclosure that they were reminding everyone of. That the changing to the accounting rules did not mean you had to change how you are funding. And the numbers that you would be booking over on the accounting side could be very different from what you're seeing on the funding side; that the pension expense number could be very different from the annual required contribution number for example. Now, that being said, a number of retirement systems are looking at making some changes so that the two are at least more similar, like using the same actuarial method for both, using a similar amortization for both. And for people who are not currently making their full ARC payment in order to avoid blended rates are starting to make the full ARC payment. And of course just more attention on pensions has led to benefit and eligibility reforms in many places.

Slide 35-Disclosures About New Pension Accounting Rules

(01:05:22)

On the next page, disclosures about the new pension accounting rules you will no doubt see a number of people saying the new pension accounting rules, GASB 67 and 68, have been released, but they have not yet been implemented. And we've got some sample wording here that you might include in the CAFRs, official statements etc. You might want to comment if you are going into a validation proceeding on these because historically when you've gone to a validation proceeding, the numbers that you are looking at if you were to look at your CAFR and your actuarial study, it was very similar as to what was the unfunded liability. The two can now diverge under the new rules. And in talking with Orrick and other bond counsel, there's a good chance that people might seek validation for the lower of the two to have clearer authority. And I personally expect that you're going to see the exact validation proceedings change to make sure that they've incorporated these new rules so that everybody has got clear authority.

Slide 36- Will Pension Bonds Change Under The New Rules?

(01:06:46)

The last page: Will pension bonds change under the new rules? We have not found in California and we've researched and several other states, we have not found that it would change the authority for issuing pension bonds, though it could under some circumstances change the sizing. One of the biggest things that will change of course is all of the disclosures that surround pensions,

and this will change regardless of whether you have an outstanding pension bond, a new pension bond or no pension bond. You're going to see much longer, much more complex disclosures, and you will get the great fun of getting to explain why what you are booking in your CAFR is not the same as what you are being asked to fund and explaining to people why it for most issuers can't be the same. The short version of that is some of the numbers you will now be booking in your CAFR under the new GASB rules you don't know until the end of the year, and it is even possible to book a negative pension expense under some circumstances if the returns are high enough. That is the last page of my presentation.

Slide 37- A Double-Edged Sword: The Economics of Pension Obligation Bond Financing for Local Governments (01:08:11)

I think we are now open for questions.

>>Thank you, Brian. We did have some questions, and we will take them in the order that they came in.

The first question we had was: With recent problems with Stockton and San Bernardino, is the market still receptive to the issuance of pension obligation bonds? Aren't investors weary of buying pension obligation bonds?

I don't know if Brian wants to take that or Rob or anyone?

>>Yes, it's Rob, I can take the first swing at that. What I think was shown in the chart I had which showed the spreads over treasuries, and what we saw in terms of the spread that Oakland had to pay, and I think Oakland has a very robust credit structure. They have actually a pledge of voter approved property taxes, so it would seem to be a pretty strong credit structure, yet investors are just concerned about what is the nature of the obligation. We have put in transactions that we had done disclosure that, this was pre-Stockton about pension reform, making the point that pension reform wouldn't change the unfunded liability because that was for prior passy service costs that had not been funded and that the obligation to pay would not be diluted. But investors are very leery, and I think certainly with Stockton proposing to not pay its validated pension funds, but continue to pay PERS, that is probably the big issue that's going to have to be litigated.

>>Thanks, Rob. The next question and I believe Rob, you said you would take this one. Why did Pasadena do a short-term quit in 2012?

>>I think perhaps when I offered to take the question I thought the question was about, they have a put in 2014 or 15 as well which was originally structured because they have a dedicated grandfathered revenue stream that was a state law as a rifle shot bill several years ago that gave them, in fact required them to use a certain tax increment only for police and fire retirement system pension costs. And it was projected that after the scheduled debt service that those revenues, there would be a surplus that the city intended to bank and the math was calculated that in 2014 or 15 they would have built up enough funds to pay those off. I do believe they did a financing more recently that had a short put, but and I don't know the reason for that but I know on the original 99 financing that has a put in 14 or 15 that that was the rationale for that.

>>Great, thank you. Next question. This is open for all of our panelists. Is an independent actuary

recommended if just refunding an existing pension obligation bond; that is could the actuary inform the structure beyond simple uniform annual savings?

>>This is for refunding an existing bond? Okay. I think if the actuary was to inform the refunding it would be because they are predicting what the ongoing pension contributions would be. Somebody who has for example a 3% annual trend in their underlying pension contributions, they might want to look at the two together and add together the debt service and the ongoing contributions. I think that would be the primary way that an actuary would have an effect on refunding.

>>This is Rob Larkins. I would second that because often times the pension bonds really are the tip of the iceberg. So I think the San Diego County in their routine disclosure does a very good job of projecting out total pension related costs, both normal and UAAL amortization costs, as well as their POB debt service to give investors the whole picture of the load of the pension on their budget. I think it is very, very good. An actuary could do the non-bond part of that.

>>Excellent, thank you. Next question: What is Moody's rationale for downgrading pension obligation bonds recently?

>>It's interesting, we were at a conference on Thursday and Friday where one of the people who got the pension bonds downgraded didn't think they had a rationale. And we got an earful from them. I think a lot of it has to do with the Stockton case and being more concerned that if there are solvency problems that the commitment might not be as good as had previously thought. I've got the Moody's note on this in front of me and they are making a tie to recent high-profile bankruptcy filings which Moody says demonstrate the willingness of some cities to continue to cut cost. They say for the most part this affects debt obligations that are paid out of the city's general fund including pension bonds.

>> Yeah, this is Rob Larkins. I think my reaction to it is: Why do decisions by one agency impact the fundamentals of others? So I struggle with the decision and further the sort of preemptive downgrading of eight or nine POBs, which as Brian suggests, the implied rationale is that those agencies are somehow closer to the edge than others. It really turns the whole legal hierarchy on its head. A validated all available funds POB is somehow weaker than a lease. If one were to go back and look at older Moody's reports on these credits in fact made the point that they were effectively limited tax GOs that all available funds of the issuer were available and clearly no taxing power was pledged. And so to take an obligation that has no abatement of risk and put it below lease obligations is a real stunner and I think it's got the market on edge.

>> Thank you both. Another question from our participants: Do you think that in today's market POB structured as a lease might be more desirable than an obligation imposed by law which has been validated?

>> I will take this, this is Rob Larkins. I will take a swing. I guess Moody's would think not, or they might, but I think also what the Moody's report brings to the surface is perhaps an assumption that all leases are the same. All leases are not the same and some have a re-enter and a re-let provision and the remedy is merely the trustee to sue for rent. And if you don't have a re-enter and re-let provision, then essentiality is moot because if you can't kick them out of city hall whether it

is City Hall or the dog pound does not matter. So I think that again what the Moody's thing has done is created tremendous turmoil in the California local markets because investors really are digging into what is the promise.

>>Rob, it is Jenna. I would agree with you. I think it would also make a difference what type of asset was being leased. For instance, the parking facilities in Stockton are something someone can come-in, re-let and get revenue. If it is the sewer system or something that is more extremely difficult for someone to come in and re-let and actually get a rental stream then I think that would give investors pause as well.

>>Great, thank you. Question for Rob. What portion of the credit spread over treasury rates relates to the taxability of the POB?

>>I would say all of it in the sense that that is how taxables are, they are all taxable, taxable MUNIs are priced relative to treasuries as opposed to tax exempts which are priced relative to the tax exempt MMD index. But I think within the municipal, taxable municipal credit spread or pricing spread, it is not just credit risk but it's liquidity risk, and I think that's what we've seen in the muni market ever since the 08, 09 meltdown was the recognition that liquidity in municipals is not even close to treasuries. So you see tax exempts still at a spread over treasuries despite the tax exemption. I think it is just a reflection of investors concerned about liquidity.

>> Great, thanks, Rob. Next question: Given current very high reinvestment risk, why issue? Brian, I believe you indicated you would field that one?

>>Oh yeah. The other speakers can feel free to hop in. There has been for decades high reinvestment risk. There is more question and criticism now about whether the assumed rates of return are actually the rates, the most likely estimates of the rates that you will get going forward. And there a lot of people, especially people who do not understand all of the actuarial calculations well, who say things like oh, you'll never get 7 1/2 or 8% going forward. But one of the things going on is if you are not getting those numbers going forward, what is happening to the other assumptions? So what can very well end up happening is that the COLAs are lower and the salary trends are lower, and the unfunded liability is about what you expected. Then you end up with the question of: Okay, so now you've got lower borrowing rates then you had in 2005, 1994. What are your chances of exceeding 4 1/2%, 5%? There it is a much more interesting question because a number of people who complained and say: We don't think that the retirement system will get 8% for a local system, are not nearly as sure about 4 1/2. And if they believe the number is going to be below 4 1/2, you actually have bigger problems. It's that regardless of whether you're going to be issuing that there is a good chance that your future pension contributions would be ratcheting up because the pension system was not getting its expected rate of return. And regardless of whether you were issuing bonds, its contribution rates probably would start to rise. So anybody else feel free to hop in here.

>>This is Rob Larkins. I think one other reason, and maybe it gets back to Thad's introductory remarks about often those that are issuing are under duress, that you can get into a funding squeeze where the asset base i.e. if the funded ratio was 30 or 40% where you do not have enough investment income combined with current contributions to actually pay benefits. Or at least you can project out and see that the current burn rate the plan might be out of money in four or five

years, so there are cases where it could be necessary to maintain solvency. And whether that is from conscious underfunding, or there are cases where contribution rates are set statutorily and not actuarially. And the lines can get pretty divergent in terms of prudent funding. So, solvency could be a reason to do it.

>>Are there any other questions? This is Thad Calabrese. I would like to thank our speakers. This was a very informative and interesting presentation by all. Was Mark going to say a few words as we end?

>>Yes, I will go ahead and end it Thad. I want to thank all the participants and certainly the speakers for a very informed discussion. Thad, Jenna, Rob, and Brian, we look forward to future contributions for our programs, and I'm sure POBs will be a topic for consideration.

Final Polling Question

I just want to cover one more slide. I know we have one final slide. A polling slide, here if we could move to that. It is already up there. Do you feel more informed around the issues surrounding POBs? There you go speakers; a very positive response from your efforts.

All right, with that I'm going to remind the participants we have another couple webinars before the close of 2012. On November 14 we have a webinar focused in the school area. School Districts Continuing Disclosure Practices in Today's Market. And then on 28 November: Don't Follow That CAB, you are quite aware of the capital appreciation bonds topic, Current Practices for Structuring School Debt Obligations. And we look forward to a robust participation for both of those, and with that again thanks to the speakers and thank you for your participation today.