California Debt and Investment Advisory Commission
Webinar Transcript
Arbitrage Risks and Opportunities in the Current Market
March 21, 2024

This webinar will discuss arbitrage opportunities in the context of the current market environment and the implications of the presence of positive arbitrage on debt and investment management strategies for public agencies. Speakers will comment on considerations for applying positive arbitrage as a potential cost-saving strategy when issuing or refinancing debt while mindfully complying with the Internal Revenue Service (IRS) requirements for arbitrage rebate and yield restriction. Speakers will also explore different debt structures that utilize positive arbitrage in the context of the rebate process, options to manage arbitrage allowances, the private use of government funds, and IRS audits.

[Editor's Note: This transcript has been prepared by the California Debt and Investment Advisory Commission (CDIAC) and it believes it to be a fair and accurate reproduction of the comments of the speakers. Any errors are those of CDIAC and not the speakers.]

Slide 1 – ARBITRAGE RISKS AND OPPORTUNITIES IN THE CURRENT MARKET 00:00

ROBERT BERRY: Morning everyone. Welcome to Arbitrage Risk and Opportunities in the Current Market. This is a webinar produced by the California Debt and Investment Advisory Commission. We're glad that you could join us this morning. I'm Robert Berry, the Executive Director here at CDIAC. Arbitrage management is a critical element of post-bond issuance administration. The investment of bond proceeds and staying on the right side of the IRS requirements for maintaining the tax-exempt status of your bonds is and has always been a standard element of CDIAC's educational curriculum. Among other resources, there's a chapter on it and our debt financing guide, and has always been a featured topic in our educational programs, but never really has the topic been hotter in the public finance world than right now. Short-term interest rates, the shape of the yield curve, current, and expected economic conditions, and the potential of FED action or inaction have combined to create an environment for earning substantial positive arbitrage on your bond proceeds. These are market conditions that I expect most of you that are participating this morning have not lived through, let alone experienced in your careers as public finance professionals. Remember, it was less than four years ago that the public finance community in California successfully advocated for a change in the investment statutes that allowed for the investment in US government securities that could result in a zero or negative interest accrual if held to maturity. So, what is CDIAC trying to achieve in bringing in this webinar today? After all, there's been a great deal of discussion about this topic in other venues. Well, first, our first objective is to help you all sharpen up your understanding of arbitrage and rebate and help you to recognize the risks and responsibilities that come with managing this phenomenon presented by this market. But second, and just as important as staying vigilant about your responsibilities, is to help you recognize that the market conditions present real opportunities to use positive arbitrage as a strategic element of your various plans of finance, both with recently issued debt and future borrowing structures. CDIAC's education team has assembled a great faculty panel this morning, ready to tackle both these objectives. But before I introduce our faculty team and we get started, just allow me to run down some of the standard webinar housekeeping items.

Slide 2- HOUSEKEEPING 02:27

ROBERT BERRY: First, the slides. People ask where the slides are. They're available in the link in the handouts section of your GoToWebinar control panel. So that's in the handouts section. We also will have them posted to our event page on our website. That's the same page that you used to register for the webinar available off the front page of CDIAC's website in the left column under educational opportunities. Then questions. Use your questions box in the control panel to submit a question any time during the program. Sometimes it's better to jot it down when you think of them. I'll interject at different points in the program to ask the panelists questions. And then we've also planned some time at the end of the program for some additional questions that come through. We have a captioning service that's accessible through the linked address in the chat section of the control panel. If you participate in 70 percent of the webinar, we'll send you a certificate of attendance just in a couple of weeks. And then also in a couple of weeks, we'll make a full replay of the program available in CDIAC's Education Portal. We'll send you a notification when it's ready, and then a link when it's plugged into the portal and ready for viewing. So, if you have technical problems GoToWebinar can help you to an extent on the number or link on the screen. Having said that, and after hosting a few of these webinars, I think often the best solution for audio problems or connection issues is simply to exit the webinar and then rejoin. So, with that, now I'd like to welcome and introduce our three distinguished presenters.

Slide 3 – SPEAKER INTRODUCTIONS 04:05

ROBERT BERRY: First, we have Craig Hill, Managing Principal of NHA Advisors. Craig has been in public finance since 1989 as a founding partner of NHA Advisors. He advises cities, counties, special districts, and K12 school districts throughout the state. His financial advisory practice also includes financial policies, financial planning, and capital project funding strategies. Craig has been a frequent presenter with CDIAC's programs over the years. Then joining Craig this morning is John Stanley, Partner with Orrick, Herrington, and Sutcliffe. John focuses his practice on the tax aspects of municipal finance. In his practice, John has served as bond counsel, special tax counsel, and underwriters counsel for a variety of municipal financings. John has represented issuers and borrowers before the Internal Revenue Service and worked with issuers to establish post issuance compliance programs tailored to their specific financings. Then rounding out our panel and to get us started by framing up the current market conditions is Simon Wirecki. Simon is Head of the Western Region for Municipal Finance and Managing Director for Jefferies. Simon has over 15 years of public finance experience and previously served as a senior banker at Bank of America and Goldman Sachs. Over his career, Simon has lead managed over $5 billion in financings for issuers across California and the West. So, we'll kick it off with Simon.

SIMON WIRECKI: All right. Thank you, Robert. Appreciate the introduction and nice to be with everyone today. If we could go to the next slide.

Slide 4 - HISTORICAL AND CURRENT MARKET CONDITIONS 05:39

SIMON WIRECKI: What we thought we would do is frame some of what Robert just hit on in terms of sort of the current market conditions that make arbitrage, both its risks and opportunities, such a relevant topic for our municipal issuers. And at the most fundamental level, I think it's important to understand what is arbitrage. And that's really the ability to profit from buying something in one market and selling it in another. And throughout the history of finance, there are all kinds of interesting arbitrage opportunities that investors and issuers have capitalized on. But for the vast majority of our audience today, municipal issuers, arbitrage really comes up as a result of your ability to issue tax exempt bonds. And the value that tax exemption affords to investors allows you to sell bonds at yields that generally, or in a normal market condition, are well below where that same equivalent bond would price if it didn't have the tax-exempt component to it, i.e. if it were taxable, and an investor who bought it had a tax liability associated with the interest that bond paid. And really, it's as a result of this dynamic that arbitrage creates lots of risks, but also plenty of opportunities for municipal issuers. Absent the rules and regulations that John's going to discuss momentarily, there really is a very interesting opportunity in the current market to issue tax exempt bonds at relatively low rates and reinvest the proceeds in what our fundamentally taxable bonds at higher rates and create an arbitrage profit, which can potentially be retained by municipal issuers, or which may need to be rebated back. So, that's the market dynamic we want to discuss today. This is most relevant for you because where you have borrowed historically or where you can as a tax-exempt borrower is very different than where you can reinvest those proceeds now. This applies to bonds that have been issued in the past or prospectively bonds that you're thinking about issuing today, whether for new projects or even for refunding purposes. Fundamentally, it's this dynamic between where tax exempt borrowing rates have been and are today and where taxable reinvestment rates are. That creates this very unique arbitrage dynamic that as Craig will discuss, we really haven't seen in 15 or 20 years, and probably for many people on the call, these topics are new dynamics to consider. So, on the next slide.

Slide 5 – CURRENT MARKET CONTEXT 08:32

SIMON WIRECKI: Here we give a snapshot of tax-exempt borrowing costs and we use 20-year MMD, which is sort of the triple A, risk-free municipal index as a proxy for where long-term average borrowing costs have been for tax exempt issuers. And as you can see, and as everyone knows, rates have certainly risen materially since COVID, but there are really two dynamics that are worth pointing out. Rates currently really aren't that much higher than they were five years ago as you see sort of where the chart starts and where it ends. And two, there's this period in the middle where rates were extremely low and there are a significant number of issuers out there, presumably many on this call, who have bond proceeds that were issued at yields that are way below where current market rates are. So, it creates this interesting opportunity. On the next slide, we get into the –

Slide 6 – CURRENT VS. HISTORICAL MARKET RATES 09:41

SIMON WIRECKI: -- what I think are the more important dynamics for this discussion, and it's the relative rates between where you can or did borrow tax exempt on the top and where you can reinvest those proceeds. And we use treasuries as a proxy on the bottom for that discussion. So, when we look at the top, this is the yield curve the triple A and MD yield curve, both its current level in light blue, and then the 10- and 20-year averages in dark blue and gold respectively. And those are the points along the curve. Again, we use the 20-year as an average proxy, but this shows that all points on the yield curve, sort of where relative borrowing costs are. And I think when we start on the top and we look at tax exempt borrowing costs, a few things stand out. One, the current yield curve is inverted on the very front end. So, when we look at the light blue line, you see sort of one through nine rates are actually declining, and that is abnormal from a historical perspective. But once we get out past eight, nine, 10 years, the curve de-inverts and we have a normal upward sloping yield curve. So, I think that's relevant. Two, when you look at where rates are, well, they are certainly higher than they'd been over the past few years, we're really at or below our 20-year average in MMD borrowing costs. So, from a historical perspective, rates are, one could say average. Higher than their 10-year average, but really at their 20-year average in aggregate as a tax-exempt borrower. But when we look at the bottom, we see a very different dynamic in the taxable market. So again, colors representing the same time periods, the light blue line, current snapshot of US treasury yield, so a proxy for sort of risk-free, taxable reinvestment. We see that same inversion on the front end of the curve, right where the one year and even the shorter treasury rates are materially higher than as you move out longer. But two, we see a significant divergence from the historical averages. So, current treasury rates are very elevated from where they have been historically, whether you look out 10 years or 20 years. And what that means is, from a municipal borrowing perspective, we're sort of at our 20-year average. But from a taxable borrowing perspective, or more importantly from a taxable reinvestment perspective, we are well above our current tax-exempt rates and our 10 and 20-year averages. What this chart doesn't capture, but I think is also really important is what the Fed has done. One-year treasury rates are a relatively good proxy for where you could reinvest proceeds, but it's really the Fed funds rate that drives a lot of very short-term reinvestment, particularly in money market funds and others. For those who have tracked the Fed, Fed funds is the most important indicator the Fed uses to drive overall rates. And what you remember is from 2008 to 2016, the Fed funds rate was virtually zero. So, we were in a point where very short-term rates were almost zero for almost 10 years. And what that meant was the ability to reinvest proceeds that you needed immediate access to meant you were earning almost zero for a really long period of time. And that trend has obviously reversed itself very dramatically. And so, I think when you look at the bottom of this chart and you look at where treasury rates are, most issuers are not looking at borrowing taxable long term. They're thinking about investing their tax-exempt proceeds on the short end of the taxable curve. And that blue line between, whether you look at zero or one, two, or three, is why this dynamic exists. Where there is the potential for such significant positive arbitrage. Because whether it's a current fed funds rate North of five or treasury rates even a little farther out on the curve, still well above four percent, all of those taxable reinvestment rates are well above where most tax-exempt borrowers are borrowing in the tax-exempt markets. So, that's why we are in this dynamic, that arbitrage is so relevant and needs to be considered as a key component of managing your bond programs both historically and prospectively. Next slide.

Slide 7 – CURRENT MARKET RATES **14:30**

SIMON WIRECKI: So, the last slide sort of captures some element of the dynamic between these two markets. And what we've charted here is the difference between a one-year treasury, again, using one-year treasury as a proxy for where bond proceeds could be reinvested taxable, and 20-year MMD or a proxy for where long-term tax-exempt bond issues, yields are. We show this from 2019 to present. If you ran this back even further, what you would see is that difference historically for a long period had been at or below zero, meaning arbitrage wasn't particularly relevant because even if you wanted to, there were not short-term taxable investment opportunities at yields that were above where your bond yield would've been. But what you see is that trend really has reversed itself. And when we remember on the first slide, it was really in 2022, that rates started going up materially. And we saw that in tax exempt rates, but we certainly saw that with treasury rates as well. And as a result, this delta, or this difference between where your overall bond yield is and where you can reinvest funds has continued to grow. And even as the Fed has talked about lowering rates, and even as longer rates have come down, tax exempt bonds have continued to price at relatively better yields. And so, this delta or this difference has continued to grow. And you see here, this is well north of a hundred basis points of just sort of natural reinvestment gain that is very relevant to the discussion that we're going to have today. So, I will end there on the current market dynamic and turn it over to John to talk about why this dynamic is so important to issuers from managing your tax and rebate liability perspective.

JOHN STANLEY: Thanks, Simon. Next slide please.

Slide 8 – CRASH COURSE IN ARBITRAGE REBATE 16:44

JOHN STANLEY: So, I'm going to cover sort of the technical tax rules that relate to arbitrage and rebate. And we refer to them as arbitrage rebate. Sometimes it's just arbitrage, sometimes people just say rebate, but there's actually two different sets of rules that apply. And we're going to cover why it's important to understand both of those sets of rules. From a big picture perspective, these rules are coming about or came about because issuers were doing things that Congress felt was inappropriate. For example, as Simon said, you can borrow at a federally subsidized tax-exempt rate and then invest the money at a taxable rate and earn money. Going back to the '60s, issuers did that and issued more bonds than they needed and just invested the proceeds and kept the excess. And Congress said, "you can't do that". And so, the arbitrage rules kind of came about in waves as particular entities were engaging in, what I'll call, abusive transactions. A lot of these rules are kind of written to tamp down on particular situations, as we'll cover in the next slide. So next slide please.

Slide 9 – OVERVIEW OF ARBITRAGE AND REBATE 18:11

JOHN STANLEY: So, as a general rule, you're not allowed to invest your proceeds of tax-exempt bonds in investments with a yield that is materially higher than the yield on the bonds. And materially higher for this purpose is like an eighth of a percent. So, it's pretty small and the materially higher is even smaller in certain situations. While there is that general rule, there are significant important exceptions that apply that do allow you to invest at a higher yield for at least certain periods of time. But the intent of all of these rules is to avoid or restrict situations where an issuer might issue more bonds than they need to, issue bonds earlier than they need to, or keep them outstanding longer than necessary for the project. So, I want to differentiate between some of the arbitrage and rebate rules we're going to talk about and the hedge bond restrictions. The hedge bonds is a separate tax restriction that generally requires an issuer to expect to spend at least 85 percent of your proceeds within three years, or 85 percent in five years if certain requirements are met. While some of that 85 percent ties into some of the arbitrage issues, it's technically a separate issue for purposes of tax-exempt bonds. So, next slide.

SLIDE 10 – WHAT DO THE ARBITRAGE RULES APPLY TO? 19:45

JOHN STANLEY: So, when we're talking about these limits on how you can invest proceeds and whether or not your investments are going to be subject to yield restriction or rebate, we need to ask the question of what money are we focused on. And the tax rules distinguished between proceeds of the bonds, which are the sale proceeds that you receive when you issue the bonds, as well as investment proceeds being the earnings on those sale proceeds and earnings on the earnings as well as transferred proceeds. So, transferred proceeds come about when you issue refunding bonds to refund prior bonds that still have unspent money or bond anticipation notes that still have unspent money or other things like that. Those are all treated as proceeds of the bonds. In addition, the arbitrage rules reply to replacement proceeds or gross proceeds, and these include amounts that are not necessarily derived directly from the bonds, but that are other funds that have sufficient nexus to the bonds to be treated as replacement proceeds. So, as you set aside debt service money to pay debt service on your tax-exempt bonds, those debt service funds become replacement proceeds. In a situation where there is a reserve fund, if the reserve fund is funded from bond proceeds, then it's proceeds if you had a cash funded reserve fund, that cash would be treated as replacement proceeds of the tax-exempt bonds because it's there to serve as a reserve. We've also seen situations with pledged funds or internal sinking funds where sometimes an issuer may decide that it has some surplus cash and it may have debt service due over the next five years and decides to set aside some of that money in its own internal account where it's invested and going to be used to pay debt service. That money, if it is sufficiently set aside and designated and exclusively available for that debt service, that effectively becomes replacement proceeds that may also be amounts that are subject to arbitrage and rebate. In general, these restrictions will apply until the proceeds are spent and there's some particular rules that get into when do you treat proceeds as spent. Generally, that's when they're actually paid to an outside contractor or paid to employees. Preliminary bookmarking or setting aside money for a project fund where the money hasn't actually been spent yet is generally not sufficient to treat the proceeds as actually spent. Next slide.

Slide 11 – YIELD RESTRICTION VS. REBATE 22:56

JOHN STANLEY: So, as mentioned earlier, there are two sets of arbitrage restrictions. One is yield restriction and the other is rebate. The general idea of yield restriction is are you allowed to invest your proceeds at a yield higher than the yield on the bonds? As mentioned earlier, the general rule is no, but there are significant exceptions. When we're talking about a new money bond that is going to be issued to fund a project, generally that will qualify for a three-year temporary period. During those three years, you are allowed to invest the bond proceeds at a yield higher than the yield on the bonds. We're going to focus on that three-year temporary period more in some later slides because it becomes particularly relevant in the current market conditions. If you do a refunding transaction, you're generally allowed to invest your refunding escrow for up to 90 days at an unrestricted yield. Reserve funds are generally allowed to be invested in an unrestricted yield, meaning you sort of can earn as much as you want. You may not be able to keep it, we're going to get to that, but you are allowed to invest it however you would like to. And for other funds, there is generally a 30-day period for during which such proceeds or such amounts can be invested at a yield higher than the yield on the bonds. The second set of rules is rebate. If you were allowed to invest at a higher yield, do you get to keep the excess and you get to keep the excess only if you meet an exception. There are some spending exceptions that we will talk about in a few slides, which allow you to keep the excess if you have spent the money quickly enough. There's a small issuer exception generally for issuers that don't issue more than $5 million in a year. That is expanded to $15 million for certain public-school facilities. And then there is a debt service fund exception. So, amounts that are in a debt service fund, as long as they are sort of put in and drawn out within a sufficiently short period of time to pay debt service, those qualify for an exception for rebate. Next slide.

Slide 12 - MOST COMMON YIELD RESTRICTION EXCEPTIONS 25:25

JOHN STANLEY: So, as mentioned, these are the most common yield restriction exceptions. These are situations where you are allowed to invest your bond proceeds above the bond yield. For the three-year temporary period, which I think is where we'll spend most of our time, you must expect to spend 85 percent of the proceeds within three years. There needs to be a binding obligation to spend at least 5 percent of the proceeds within six months after the issuance. That doesn't necessarily mean you need to have spent five percent within six months after the issuance, but it means that you need to have a construction contract or other thing in place to have that obligation to spend the money. And you need to proceed with due diligence in spending your proceeds timely. If you do qualify for this three-year temporary period, you are allowed to invest your bond proceeds above the bond yield. But after three years, you're technically no longer allowed to invest above the bond yield. However, there's also a rule that says if you do actually invest above the bond yield and you qualified for that three-year temporary period, you can make yield reduction payments, which sort of pay down the yield, you pay the excess back to the federal government, and that treats you as having complied with yield restriction. We will talk about that a little bit more in some later slides. Current refunding bonds mentioned this, the 90-day temporary period reserve funds, you're also allowed to invest above the bond yield up to as long as the reserve fund has been sized based on the lesser of three test, no more than 10 percent of your bond proceeds, no more than 125 percent of average annual debt service, or your maximum annual debt service. And lastly, bonafide debt service funds qualify for an exception from yield restriction if they are depleted annually and the money's held in there and held no longer than 13 months. Next slide.

Slide 13 – SPENDING EXCEPTIONS FROM REBATE 27:38

JOHN STANLEY: Here, we're going to cover some of the spending exceptions from rebate. And I want to say that we put a lot of words on all of these slides because we wanted you all to have something that you could take away with you and use as a reference. As much as you can understand this as we're talking through it is great, but we do have some case studies as well at the end where we're going to drill down on some of these issues and provide a little more context. So, if you spend all of your proceeds within six months, you don't owe rebate. So, that allows you to keep anything you earn during that six-month period as long as everything is spent within six months. Outside of refunding transactions, it's fairly unusual in my experience to meet that six-month exception. Then there are two exceptions that are more likely to be applicable. One is the 18-month exception. So, no rebate is owed if all of your proceeds are spent within 18 months, but you also have to meet these 15 percent spent within six months and 60 percent spent within 12 months [requirements]. Lastly, there is the 24-month exception. This only applies to construction issues and for this purpose, it has to be construction, not acquisition. And there's some detailed rules that get into if you're acquiring property to be included in other property, is that a construction or is that an acquisition? And those rules are beyond the scope of this presentation. The 24-month exception also only applies to governmental or 501C3 bonds and doesn't apply to private activity bonds or other types of exempt facility bonds where you may have private ownership. If you meet these spend down requirements, 10 percent within six months, 45 percent within 12 months, 75 percent within 18 months, and 100 percent within 24 months, then you can keep any of the excess money that you earn during that period. Both the 18-month and the 24-month have what I will call de minimus exceptions. So, if you end up with a small amount of money left over, a few hundred thousand dollars or amounts that are necessary to ensure that contractors complete their punch list items, there can be some ability to give you a little bit of wiggle room there. But generally, these do require spending of proceeds, I'll say, more quickly than I've seen in the market over the last 15 years. I think it's not uncommon for issuers to size their bonds based on the amount of money that they will need over the next three years in compliance with the 85 percent within three-year hedge bond requirement. But if you really are spending your money over three years, you're not going to qualify for any of these rebate exceptions. And anything you do earn above the bond yield is going to need to be paid as rebate. Next slide please.

Slide 14 – TIMING CONSIDERATIONS – REBATE LIABILITY 31:00

JOHN STANLEY: So, here are some timing considerations. Rebate is looked at over the entire term of the bonds. So, if you earn zero percent for the first year and then five percent for the second year, assuming you have the same amount of money during both years, you blended over time to come up with what your average rebate potential liability was, what your average earnings were on your bond proceeds. And so, you can have situations where you have a negative liability in certain years and a positive liability in later years. And those can blend out to avoid any need to make a payment. But bonds may be outstanding for 30 years. The treasury regulations require that payments be made no later than five years after issuance. So, what you effectively have to do is by that fifth year, determine what your situation is to-date. Have you had a net positive or a net negative? And if you have a net positive, you have to make a payment. It doesn't have to be a hundred percent of liability, only has to be 90 percent of the liability by that fifth year. Then you get to year 10 and you calculate where you are at that point in time. Then again year 15, year 20, until the bonds are no longer outstanding. So, it is possible if you have a reserve fund, for example, to have a positive liability for the first five-year period and then maybe interest rates drop back down and you have a negative liability in that second five-year period. It is possible to file a refund claim with the IRS and get that difference back. We haven't seen that that leads to any more likely audit of your bonds, but the IRS sometimes will scrutinize that refund claim and disagree with some of the calculations. They certainly pay more attention to your refund claim than they do if you were making a payment. While these payments are due at least every five years, I always recommend for issuers to be monitoring this on an annual basis. You don't want to get to the fifth bond year and find out that you owe a million dollars and not have money set aside in any budget available for that. And so, by doing an annual monitoring, that puts you in a position where you can identify potential issues coming up and as we'll get to in some of the case studies that can also provide you with the insight and opportunity to make some changes in how you may be investing your bond proceeds in order to try to avoid a liability or minimize it in some way. Next slide.

Slide 15 – YIELD RESTRICTION 34:06

JOHN STANLEY: So, yield restriction is that separate set of rules that governs whether or not you are allowed to invest your bond proceeds above the bond yield. It is also blended over time, but there's a particular rule that says you only blend over time when you did not qualify for a temporary period. And this gets a little technical, but we really wanted to hit this point. So, if you issue new money bonds, you get that initial three-year period where you are allowed to invest above the bond yield after that period, you're not allowed to, but if you do, you make yield reduction payments. However, when we're blending your investment yield for yield restriction purposes, we don't get to take into account that three-year period. That three-year period is kind of off to the side. So, instead, after the end of three years, we look at, okay, starting fresh now, how have your bond proceeds been invested and on a blended basis have they been invested above the bond yield? So, we have a case study that gets into this in a little bit. But if you're coming up on the end of that three-year period, you may have a lot of negative arbitrage on your bond proceeds during those prior three years. But once you get after that three-year period, you don't get the benefit of that for yield restriction calculation purposes. You do for rebate but not for yield restriction. And so you may end up with a surprise liability. To the extent you have to make yield reduction payments, those are made on the same five-year schedule as rebate payments. So, the fifth bond year and then each five years thereafter. Next slide.

Slide 16 – OTHER ARBITRAGE RULES AND DEFINITIONS 36:01

JOHN STANLEY: There are a few other points we wanted to hit. For when you issue fixed rate bonds, you generally know what your bond yield is on the issue date or on the pricing date. Usually for variable rate bonds, when you are calculating yield restriction and rebate, you recalculate your bond yield as of each five-year period based on what your actual bond rates have been up to that point. I mentioned earlier that a lot of these rules come out of sort of abusive behavior by particular entities, and there's a general requirement that you need to buy investments at fair market value. There are treasury regulations that provide some detailed methods of how you establish fair market value. And in some cases, the IRS can dispute that. The situation has come about that we sometimes refer to as yield burning. And that's the idea of, if you as an issuer of bonds are not allowed to invest your bond proceeds above say a three percent bond yield and you could go out and buy some investments and someone who knows that you are limited to a three percent investment return, that you'll have to pay rebate on anything more than that might say, hey I'll give you a three percent investment when fair market value would be 3.5 or four or something higher. Effectively they're selling you an investment at a below market cost, and they get to benefit from the difference. This is referred to as yield burning. Lately we've seen this come up when tax exempt bonds are issued, and the proceeds are going to be held perhaps a private placement with a bank and the bond proceeds are also going to be held by that bank. Well, let's say the yield on the tax-exempt bonds is four percent, or let's go lower, let's say three percent. And the bank says, well, I know you're not going to be able to keep anything above three percent, so we will just give you a three percent return on the bank account that is holding your bond proceeds. If that's not the fair market value rate currently, then effectively, the bank is getting the benefit of that differential. And that's something where the IRS would come in and say, no, no, no, like you did not acquire those investments in that bank account at fair market value and therefore there is some imputed investment earnings that are going to the bank. Lastly, and this is something we're going to cover more as well, if you invest your proceeds in other tax-exempt bonds, those are not subject to yield restriction or rebate. Sort of the theory there is tax exempt bonds are out in the market. If you as a non-tax paying entity are investing your proceeds in other tax-exempt bonds, you are sort of taking them out of the taxpayer market and so, therefore they're not subject to yield restriction or rebate. And there's a particular type of SLGS, or state and local government securities, issued by the US Treasury that are treated as tax-exempt bonds for this purpose. Now, you may be familiar with SLGs when acquiring investments for refunding escrow, and those are usually time deposit SLGs where you identify the amount that you want to buy, the rate that you want to buy them at, and when they are going to mature relative to when you need your escrow to pay out. Demand deposit SLGs are different. The interest rate changes daily. They generally can be redeemed on three-days' notice. For this purpose, they are also treated as tax-exempt bonds. And so, they provide a particular investment opportunity that is worth knowing about. It may end up being a situation that makes it easier to deal with some of the arbitrage and rebate limits, particularly for bonds that have been outstanding for more than three years. And so, we're going to come back to that in some of the case studies. Next slide, please.

Slide 17 – GENERALLY PERMITTED INVESTMENT OPTIONS FOR BOND PROCEEEDS 40:33

JOHN STANLEY: And I realize that was a lot of material and a lot of technical material. I'm hoping some of it came across. We are going to have some case studies that sort of walk-through examples of how some of these apply. But for this, I'm going to turn it over to Craig for this slide.

CRAIG HILL: Great, thanks John. And I'm going to pose a question, you don't have to answer this now, but when you were talking about yield restriction and talking about permanent investments on that last slide, what constitutes, if somebody's in that yield restriction period, whether they're making an effort to not in accidentally end up in an investment that's above their yield restriction, right? So, I'm sure many issuers just have their money with their trustee and a money market fund that's fluctuating from month to month. Is there a situation where if they're not paying attention to it, every statement that they get on a monthly basis, all of a sudden, they're above the yield restriction? Does the IRS look negatively on that, or they did just say, "you just need to clean it up by making a payment to us"?

JOHN STANLEY: Yeah, I mean, I think that would be a situation where you can't go out and buy two percent yield in securities these days because investment rates are just above that. So, you do have to acquire things at fair market value. And you're right, if you have your money and a money market fund or other variable rate fund, and you're not paying attention, and the interest rate on that fund rises above your bond yield, yes, you get to blend over time. And so that may have some benefit, but otherwise, to the extent you're earning above your bond yield, you may have to make yield restriction or rebate payments.

CRAIG HILL: Right.

JOHN STANLEY: Craig, you made the point as we were planning this of paying yield restriction or rebate is not necessarily a bad thing. Do you want to talk about that?

CRAIG HILL: Sure. But I think for everything that John just tried to scare you with around all the rules that you have on your investments, as we start now getting into the part of the webinar where we're going to go through some actual numbers and case studies. It should be noted that you have a responsibility as a financial manager within your public agency and to your taxpayers to maximize your earnings or maximize the benefit of any financing you are doing. That's just going to give you more proceeds or more earnings to build the project or pay for other items. And so, it's important to know that you actually do ideally want to try to earn a rebate liability or arbitrage, because if you effectively earn more than you're allowed, that means you've earned the maximum. I don't know anybody personally who can peg their investment strategy exactly at their bond yield and not go a dollar over or a dollar under. You're going to get close depending on what the market conditions are that Simon went through at the very beginning. So, you should be shooting for the stars following some good recommendations from John about on an annual basis, checking to make sure what your rebate liability is. Nobody wants to find out in five years that they owe a million dollars to the federal government when they don't have a million dollars' worth of bond proceeds or earnings sitting around anymore. So, you do want to be tracking that and setting that aside. But you would rather be over by a hundred thousand dollars than under by $500,000. And we speak with a lot of public agencies who kind of have this intent, well, I never want to pay taxes. I don't want to pay a rebate liability to the federal government, when in fact it actually means you're doing your job and earning a good amount off of those bond proceeds. And as this slide really indicates I'm sure for all of you who have ever issued debt, that the bond counsel and attorneys will always draft your documents with a specific section allowing you to invest in certain things. And this is a fairly standard laundry list. We just want to bring to your attention, really the bottom two, which are the demand deposit and the tax-exempt municipal securities. Because for all of the reasons that this webinar is intended, that's where your arbitrage opportunity is. That's where you get to play a little bit of a game and potentially earn more than you otherwise would be allowed and keep it. Everything else that's on this list is going to be subject to all of those rules that John just went through, whether it's a rebate liability or rebate calculations, or whether it's even subject to yield restriction. I will say that this does not mean you can go out and buy just because you've found out you've got negative arbitrage on your earnings for the last couple years that you can go out and buy stocks or corporate bonds. They do have to kind of fit within this permitted investment section. So next slide.

Slide 18 – BOND YIELD VS. INVEST YIELD 46:00

CRAIG HILL: To start putting some math to the words that you all have just heard from John and Simon, it's important to know that I think for anybody who hasn't been in this business for the last 18 years, this conversation doesn't even make any sense or was not relevant. And what we had was, as you can see kind of from the graph, is historically even when you were borrowing money at three percent rates, or three and a half percent rates, you weren't really ever in earning anything near what your cost of funds were. You were down in the sub one percent range. So, we call that negative arbitrage. And if you borrowed money and you were spending it down slowly on your project, you just were always behind the curve in terms of trying to earn more than what you were allowed to earn. You see where the investment yield has kind of skyrocketed and what that has created now is a position where it's almost impossible not to be earning positive arbitrage right now. And this is an anomaly that for those of you who have been around for 20 to 30 years, you may remember the day when it was just impossible to not earn positive arbitrage. The way the math works though, and this gets back to some of the calculation formulas that John was talking about, it's anticipated that you had the bulk of your bond proceeds earning negative for years. For the last couple years, you just couldn't earn enough. But you're also spinning that down, so mathematically today, most likely you have small balances left in potentially a project fund or in a construction fund. And while those may be earning positive rates, the actual calculation and the nominal dollars that you're earning are only going to be offsetting the negative arbitrage that you earn. You've got such a big accrued liability or negative earning opportunity in the past that you probably aren't going to go positive. One of what the case studies we'll talk about here is really what about the issuers who are going into the market today and what should they be thinking about. Because right out of the gate, they're going to skyrocket into a position where there's positive arbitrage. So, next slide.

Slide 19 – CASE STUDIES **48:30**

CRAIG HILL: We are going to go through four examples of some scenarios that may or may not be relevant for any of you that are on this webinar. The first one is really to go through an example of an issue that was done a few years ago and you still have unspent proceeds: what to do. The next one's going to be looking at, I'm going to market sometime in 2024 -should I be actually paying attention to this? Because this is something we've never talked about before. We'll get into some of the examples on your short-term accounts, capitalized interest, bond funds, we'll talk a little bit about even reserve funds. And then one of the real opportunities that kind of goes to the title of this webinar which is the arbitrage example of a current refunding that a lot of public agencies are doing now through their refundings that are really allowing them to capture and increase the total benefit of a refunding through their escrow. So, with that, I'll go to case study one –

Slide 20 – RECENTLY ISSUED BONDS **49:44**

CRAIG HILL: – and just so everybody knows, we're going to try to make this a little dynamic. Simon, John, and I are going to tag team across these things. So, you may hear different comments from different folks, but we're really putting some math together now for everything that you've hopefully learned in the last half an hour. In this example, you've got a $20 million project or financing that you've done. You did it back in 2021 at a rate of around two and half percent. At the time, with the nominal rate, you were just excited to be borrowing money at a really low interest rate. You weren't thinking at all about making money on this project, right? Other than just getting some token interest earnings off of the construction fund while you're waiting. For our purposes this project didn't have a reserve fund, so you don't really have any other big buckets. You spent your cost of issuance and you're off and running. And as John mentioned, the way the rules work, you came out of the gate assuming you were going to spend this money on a project. So, you were eligible for the three-year temporary period, which just meant right out to the gate you didn't have to lock down those bond proceeds in a yield restricted investment strategy. But as we all know, between 2020 and 2024, we've had this thing called COVID and the pandemic, and it has disrupted a lot of what public agencies have tried to do in terms of their capital projects, whether it's a supply chain issue, whether it's just getting contracts bid and let, or even if it's been a function of just not being able to get the projects implemented or going as fast as possible. So, in our example, here we are almost four years later or three years later and we've got $10 million left in the project fund because we're behind schedule. Now the good news is, you weren't paying much attention to your project fund because it was not really earning much as you can see. We've quoted some LAIF [Local Agency Investment Fund] rates, which most likely may have been where you had these proceeds. For the first year, you were only earning 0.3%. Again, your arbitrage yield is two and a half percent. So, you were a long way from earning any positive, you were in effect leaving a lot of money on the table from an interest earnings perspective. But starting in 2022, going into 2023, last year, the rates really jumped, right? We've all seen how the short-term rates have gone up and now you're at two and a quarter percent. So, you're pretty close to what your arbitrage yield is, but from a cumulative perspective, you're still negative. Second half of last year going into 2024, you can't not make money on any investments that you have. You put it into a money market fund, it's earning over four percent. LAIF is doing well. All of the short term permitted investments are doing really well. So, you now have a situation where on that $10 million that you have sitting there, you're earning four percent. So, you're actually in a positive arbitrage environment today compared to what you were for the last two years. Now, it's important to note that as John mentioned, if you were doing rebate calculations on an annual basis, you would show that you had a big negative after year one, a smaller negative in year two, but probably finishing year three, you might be getting close to break even or just have a slightly negative arbitrage rebate. What's going to happen now is you're going to end the three-year period of time and you're going to enter into a new window of how you manage this bond proceed. So, if we can go to next slide.

Slide 21 – DEMAND DEPOSIT SLG INTEREST RATES 5-YEAR HISTORY 57:17

CRAIG HILL: And John, do you want to talk just a little bit about what happens on July 1st, 2024?

JOHN STANLEY: Yeah, so we talked earlier about that three-year temporary period. So, for rebate purposes, you get to blend that 2.25% yield and that 4% yield. On a blended basis, since you originally issued for rebate purposes, maybe you're still negative, but yield restriction is the one where after the end of that three-year period, you sort of start afresh. Under this hypothetical, after July 1st, 2024, we kind of just have to look at how much are you earning now and how much do you earn as of that date through the end of the five years when a yield restriction payment may need to be made. So, you lose the benefit of that negative arbitrage from the beginning. I will say there is an ability to sort of waive that temporary period in certain cases, but you have to do that when you originally issued the bonds. If you waive that, you have no ability to earn positive arbitrage, so it's very rarely done, but it creates a surprise. You may be looking at it on a blended basis and saying, no, there's no way we've earned positive arbitrage so far, and that may be correct for rebate, but this separate yield restriction calculation is a trap for the unwary. It’s potentially going to create a liability. You want to be aware of it. And this is something where that opportunity to invest in demand deposit SLGs may be a way to manage this issue. So, you still have $10 million in your project fund, you have until July 1st, 2024, to invest it however you want and qualify for-

CRAIG HILL: I think we lost John for a second there. So, the idea is that it's until you reach the end of your three-year window, you do have the opportunity to try to earn back some of that negative arbitrage. But it is something that is a completely different rule than when we trigger the yield restriction period.

JOHN STANLEY: -for purposes of rebate.

CRAIG HILL: All right, so why don't we go ahead and go to the next case study.

SIMON WIRECKI: And Craig, is it worth just looking quickly on the next slide at the history of demand deposit SLG rates and why this has become so relevant after being largely irrelevant.

CRAIG HILL: Great point, Simon. And I'll let you chime in. I'll tee it up. So, again, one of the opportunities that we really want to share with everybody today is the long-lost cousin that nobody ever talked about for the last 20 years called the demand deposit SLG. It's probably the ugliest name I've ever heard of for an investment, but that's what they have. And as you can see, just over the last five years, and again even going back 10 years, we never thought about this as a good investment strategy because it always had a sub-market return. Well, starting in the pandemic, as you can see, it hits rock bottom, effectively goes to zero in March of 2020. Of course, everything else was close to zero as well, but we would've never looked at using a demand deposit SLG for any kind of an investment strategy. John already mentioned to you all that this gets special treatment as an investment that exempts you from any of the rules, whether it's arbitrage rebate or yield restriction. So, you get a hall pass if you can invest in this type of a security. And its liquid, so you are literally buying something like it is a money market fund - you're able to get out of it, use it for your projects, whatever, as soon as you want. So, as we get through the beginning of 2022, we're ignoring the demand deposit. But lo and behold, because it's following the treasury market, you can see how quickly between early 2022 and really June of 2023, it skyrocketed to four percent. This was the sleeper that nobody was catching onto from a municipal investment strategy. But as it has stabilized for the last nine months, you can see that it's north of four percent. We believe and are having a lot of conversations with public agencies that are holding on to bond proceeds, whether they're subject to rebate or subject now to yield restriction as John was talking about in our case study of a 2021 bond issue that will, starting the second half of this year, be subject to yield restriction, looking at a demand deposit can be a great alternative to not only take care of the yield restriction checking that box, but actually from a dollar perspective and a financial earnings perspective. You're going to be making interest that you don't have to pay back or give to anybody. So, Simon, you want to add anything else?

SIMON WIRECKI: I think that captures sort of as an arbitrage opportunity, this shows the unique nature of something like demand deposit SLGs.

JOHN STANLEY: I think I'm back if you can hear me now.

CRAIG HILL: Yeah, you're good, John.

JOHN STANLEY: Yeah, I apologize. So, I mean, you may have hit this, but the one point I like to say about demand deposit SLGs is the investment rate there may be a little bit lower than what you could get in other investments, but you get to keep whatever the differences between the demand deposit SGs rate and your bond yield. So, if your bond yield's two and a half and you're earning four in a demand deposit SLG, you get to keep the difference. Whereas maybe you could get four and a half in some other security, but you're going to have to pay down to two and a half. So, that's kind of the takeaway in my mind.

CRAIG HILL: Yeah, great point. Next slide.

Slide 22 – NEW ISSUANCE **1:01:11**

CRAIG HILL: So, we want to pivot a little bit and now have everybody think about, in this case study, we're talking about getting ready to go to market or a new issuance, and what strategies should you be thinking about as you put together the bond issue and you think about where you're going to be investing those proceeds? As we alluded to earlier, given today's current market conditions, most likely you're going to be issuing a bond and immediately putting the bond proceeds into an investment that could be higher than your arbitrage yield. So right out to the gate, you're going to be positive. And again, for all the reasons that you have a temporary period, yes, you can do it for three years and accumulate and then know that you're going to pay that rebate liability back to the federal government in year five.

But you might also think about this a little bit differently than you have in the past, which is what can I do know I'm going to make some good interest earnings on my bond proceeds to help lower the overall cost of the project financing or my debt service? And in this case, we're creating a hypothetical that you're thinking about it in 2024, you've got a project that you're going to spend $20 million over three years, you're going to basically go for the first six months to the tune of about 8 million, so you're spending at a good clip, and then you're going to spend $6 million over the next couple years. We would expect that maybe you're going to borrow; your arbitrage yield will be somewhere around three and a half percent. Again, alluding to the fact that right out of the gate you are most likely going to be earning over four percent, so you're earning half a percent higher than it cost you to borrow the money. And what strategies do you want to think about in this scenario to potentially look at doing a financing a little differently than you might have even done two years ago? So, next slide.

CRAIG HILL: And the first one is this concept of net funding your project. Most of you, if you had a public works director who said, I need $5 million for a pump station, you said, okay, I'll go borrow $5 million and I'll just give it to you because that'll cover your project and I don't think it's going to earn much interest. And if it does, that'll maybe cover some of the overage that you have on the project. Now, because we're talking about real interest earnings, there is an idea here to actually say, maybe I won't borrow the full five, maybe I'll borrow four and a half knowing that I'm going to earn a half of a million in interest earnings over the course of the project. You're borrowing less; you're going to have a smaller debt service going forward and you're effectively minimizing or optimizing how you are funding that project. John, do you want to talk through the rebate exceptions on this scenario?

JOHN STANLEY: Well, just on the net funding point: I think so many of us have lived for so long with interest rates that were so low in investment rates that I could imagine some uncertainty about willing to rely on net funding project funds out of a fear that suddenly interest rates are going to drop back to zero. But in the vast majority of history, we have not been in that situation, but it has been our recent history that we've all been dealing with. In a perfect world, you could borrow it at three and a half percent, invest it at four, and you would get to keep that difference. But you only get to keep the difference if you qualify for a rebate exception. And under the facts as we've laid out here, you wouldn't qualify because you're not spending everything within 24 months. This is a conversation that I've been having with clients that are issuing new money bonds only within the last couple of months of, do you want to issue fewer bonds now, do a couple of bond issues to fund this overall project instead of issuing your project fund that you need for three years, only do it for two years in order to create the opportunity to earn excess money during that two year period and get to keep it. In our facts here, you're issuing in July 2024 but not going to spend money until January 2025 - do you want to delay a few months in order to make it easier to fit within a potential rebate exception? Is there a way that this project could be accelerated in order to try to fit within a rebate exception and allow you to keep the money? I'll say I don't think any of these are things you have to do. As Craig mentioned earlier, if you owe rebate, that means you borrowed at three and half percent and you got keep up to three and a half percent that you earned. That's not necessarily a bad thing. It means you were sort of neutral to your cost of borrowing during that time period. But if you can fit within an exception and earn four and get to keep the excess, that is certainly better. So, I try not to let the tax issues kind of drive the business transaction, but when there are situations around the margins where maybe some changes could be made to maximize some tax and arbitrage opportunities, that may be something worth considering.

SIMON WIRECKI: And John I would add from an investment banking perspective, in some sense we're often having kind of the opposite discussion, which is if you think about the case study one that we talked about, you could issue bonds at two point a half percent, love the yield, super low, but you look at the reinvestment average on that slide and it was 30 basis points for the first year. So, I was issuing bonds at two point a half percent. I love my long-term rate, but I feel like we all have been in scenarios where engineers love to tell everyone they're going to spend money faster than in practice they actually do. Bond proceeds often sit around longer than anyone expects, so, in that first scenario, I'm paying debt service on my bonds at two and a half percent and I'm earning 30 basis points. That negative arbitrage or negative carry doesn't create a rebate liability, but it creates an incremental cost to the bond issue because it's just a negative drag on the total financing. So, in those lower interest rate environments, we spend a lot of time talking to people about timing because there was a real negative carry to issuing too early. And if you look at this current case study, I know I can earn, at least today, well in excess of my bond deals. Maybe I can find a way to keep that positive arbitrage, and that's an incremental benefit, but I feel relatively confident that even if I issue for three years of spending, it's very unlikely I'm going to have any negative carry or negative arbitrage on those proceeds. So, the confidence I think people have to know they can reinvest the money at effectively their bond yield, take some of that time and consideration out of it if I'm an issuer because I don't have to worry about this negative arbitrage as an incremental cost on my bond issue. I think it does take some of the need to be really careful about timing out of the equation in a way that's constructive for issuers because the relative sort of borrowing costs aren’t going to change as much of issuing today versus waiting. It's really only going to be driven by the difference in market rates and not this incremental cost I would've had to add on to my effective financing rate. So, it comes up on both sides of the equation with regards to timing.

JOHN STANLEY: I think that's a great point and its sort of a countervailing factor in the situation.

CRAIG HILL: All right, do we want to move on to the next example?

SIMON WIRECKI: Yep.

CRAIG HILL: So, one of the sleeper funds that often gets set up when you do a bond issue is capitalized interest. You do it for the sole business purpose of we need to get the project built before it's either going to be generating revenues or we have access to it in order to start making lease payments. Often, new money project financings will include capitalized interest, which could be one, two, or even up to three years. Again, in the past, the money that went into the capitalized interest fund would just be gross funded and be potentially in there at zero, half a percent, maybe one percent. What we wanted to do was just give you a hypothetical quant calc on the difference between proactively investing that at four percent versus the potentially just a 1% that you were seeing in the past. And as you can see in red that the effective change is $425,000 worth of earnings over a three-year period of time versus a hundred if you were not proactively investing it in as high a yield as you could possibly get. So again, the math is pretty simple. There are no surprises here, but while we've been talking about percentages for the last hour, it's important to know what does it mean in real dollars. Looking at the fact that there are so many investment opportunities and securities out there that you can get into, whether it's demand deposit SLGs or even open markets securities, you can see that it can actually add to the bottom line quite a bit, even in a simple scenario like this, for your overall financial health and/or project viability. Next slide.

Slide 24 – CURRENT REFUNDING **1:12:30**

CRAIG HILL: This is our final case study, which is really talking about one of the biggest opportunities from a dollar perspective. I'll just start by saying, while we've been talking about things like your project fund, capitalized interest, reserve funds, these are small buckets relative to actually a refinancing of an entire bond issue. You're generally talking about larger dollar amounts than what's remaining in your project fund. The benefit of being very proactive in your strategy towards investing money can serve to really improve your overall present value, savings, return, or cashflow that you get out of a potential refunding. So, we've talked about new money, we've talked about an old project finance that you did back in 2021, and now we're going to talk about what the benefits are of taking out a refunding or refunding an old obligation. So, Simon, do you want to summarize this scenario?

SIMON WIRECKI: I'll summarize the scenario and again, I think to Craig's point, this is another great opportunity for allowable arbitrage that to me, if we go back to where we started, what is arbitrage investing in one market and then reinvesting in another and earning a gain, this is a pretty easy one that could apply to almost any bond issue. So, in this case study, an issuer is planning to execute a current refunding in April 2024 with bonds that are called on any date after May 1, 2024. Not driven by the rebate rules, but the overall tax rules, we all know for refunding to be tax exempt, it must be a current refunding. Meaning there must be no more than 90 days between when the refunding bonds are issued and when the previously refunded bonds are called. Otherwise, it's an advance refunding, which is no longer permissible. And as John talked earlier, refunding escrows qualify for a 90-day temporary period from yield restriction and also likely will, but may qualify from a rebate exemption as well. The net impact is that escrow, those new tax-exempt bond proceeds placed into an escrow account to pay off the old bonds, are essentially not restricted with regards to what they can earn. And this is very relevant today because even if you were to invest those proceeds simply in SLGs, so you know at the time you're issuing the bonds what your rate will be, the current 90-day slug rate is a 546, I believe. As we talked about, current tax-exempt borrowing rates maybe in the twos, maybe in the threes. So, it's a very easy way for you to issue bonds at two or three percent and invest for 90 days at almost five to five and a half percent and retain that benefit either by selling fewer refunding bonds or retaining the incremental earnings in the escrow at closing. I think it's important to note in this example, historically we would always think about timing refundings to close on the call date so we could avoid an escrow because there was a negative cost to that. But that's no longer the case and you are able to do a 90-day escrow even if that 90th day is not the first call date. So, you can have the bonds redeemed as long as the document's allowed after their first call date to create this 90-day period to earn the arbitrage on the current refunding escrow. And Craig, we'll talk very briefly about the economic benefit and then maybe Robert, we can turn it over to questions.

JOHN STANLEY: I'll just chime in and say I try not to go 90 days just out of a concern that something bad happens and someone fails to actually call the bomb. 88, 89 days always helps me sleep a little bit better.

CRAIG HILL: John, you don't like us to have the 90th day be on a Sunday?

JOHN STANLEY: I don't like that, and I have seen a situation where the bonds were not called on the day they were supposed to be called. So, having had that real world experience, I try to build in a little cushion.

SIMON WIRECKI: And it's always good to have your tax lawyers sleep well at night.

CRAIG HILL: What's an extra hundred thousand dollars in interest earnings among friends, John, just a hundred thousand? So, if we can go to the next slide, we'll just put some quick math to this and then we can close this out for questions. In a recent financing or refunding that was done, it was approximately $49 million. It had an outstanding coupon of about 3.8. To what Simon was talking about, every day that we delayed paying that old bond off the public agency was accruing $7,100 in interest on that old debt. Well, don't we want to pay that off as quick as we can? Well, the fact was that because we could get a SLG rate that was at a 553, we actually could make money on just holding on to the 90th day (or 89th day if John was involved) and earning effectively a marginally better or greater amount of earnings on that SLG. Had it been yield restricted subject to the new bond proceed rate of 3%, you would've effectively been only earning in the $4,000 a day number. So, the net benefit of letting yourself go out to the 90th day in a current refunding scenario was almost $300,000. And again, this is above and beyond just the traditional, “I'm refinancing at a lower interest rate” - my P and I [principal and interest] payments on the old deal compared to my P and I on the new deal is something we were able to actually improve the overall benefit of the refinancing through a 90-day as opposed to a 14-day refunding almost $300,000. So, again, this is something just to consider. We've all been wired over all these years to just look at only that first call date. We pegged to that first call date as though it's gospel and it may be that there's a financial advantage to actually delaying it and taking advantages as best you can just to the benefit of being able to invest in a SLG at a 553 in this example. So, I think with that, we are through our case studies and our education. Robert, we’ll turn it back over to you.

Slide 25 – QUESTIONS 1:20:00

ROBERT BERRY: Yeah, we have a handful of interesting questions here that have come in. I think this one's directed at John a little bit, but feel free to chime in, Craig and Simon. This question is about some mechanics. What are the mechanisms in bond documents that make sure issuers have cash to pay the rebate amounts that are due on the applicable five-year payment date? Related to that, what if the issuer has not been setting aside cash to make the next rebate payment and ends up not having funds available to make the rebate payment when due? Can the issuer come up with a payment plan with the IRS? Are there any other approaches to resolving this issue?

JOHN STANLEY: Yeah, it's a good question and it's going to vary wildly by bond document. Usually the ones I've seen, the tax certificate will describe the process for calculating rebate and often there will be a rebate fund either established under an indenture or a resolution, or established by language in the tax certificate that provides that the issuer will, as rebate amounts become calculated as being due, will set aside money in there. But I'll admit, I think often there is an obligation on the part of the issuer to calculate any owed rebate and to step money aside for that. But I'm not sure how mechanically that often fits together in terms of some third party, like a trustee or something. I have not seen anything where the trustee is doing the calculations and setting aside money on behalf of an issuer without the issuer actually taking some action. I think this may be something where over the last 15 years, it hasn't really been a meaningful concern. And so, it may be something to think about in terms of putting procedures in place. I'll say in general, my experience is the procedures are part of post-issuance compliance are part of policies that may be incorporated by reference into the bond documents, but are not often baked into the indenture or other four documents. In terms of liability, there is the ability to make late payments with interest. The idea of a payment plan is not immediately coming to mind, I know that is something the IRS does in other cases. I'm not saying it hasn't been done for rebate, I just can't think of an example where that has come up. That may be in part because over the last 15 years, it's been pretty rare for issuers to have rebate liabilities, so I haven't seen that many situations. Craig or Simon, anything to add on that? Craig, you used to do more rebate. Are you familiar with any situations you've seen where issuers have had to scramble to come up with money and come up with any creative solutions?

CRAIG HILL: Yeah, there have been some situations that I think a lot of them get triggered by a refunding. So, all of a sudden rebate is due within, 60 days or 90 days from when the old bonds cease to exist. And that isn't necessarily on a five-year bond year period. We've had this situation where we've had to address it as part of a refinancing when there had been an accrued liability or rebate liability that's going. I used to joke that the lawyers would always put into the bond documents this rebate fund, like they'd actually define it as a fund that then the trustee would set it up but not do anything with it and didn't know what to do. Obviously the logic was you did the calculation and you instructed the trustee to move interest earnings from the project fund into it, but I'm going to go 99 out of a hundred times that fund, if it is actually set up, it's got zero in it.

ROBERT BERRY: The question relative to asking for practical tips on how to invest or how to track issue rather investment returns on proceeds invested as part of a local government or statewide pool, what do investment statements, for such pools show? Do they give you enough detail to reflect the payments and receipts with respect to the gross proceeds invested on a specific issue or can payments and receipts not be traced directly to a specific issue? Any thoughts about that?

JOHN STANLEY: I think that's going to depend on how your funds are invested. If you have a project fund that's invested in LAIF, for example, and you're getting a statement back specific to those project fund investments, then you have pretty good details. But if your money is being invested more broadly, and some of that's operating revenue, some of its other things, you're going to have to do sort of an un-commingling to figure out, and I'll say generally that would be on a proportional basis to figure out how much of those earnings relate to your bonds.

CRAIG HILL: And John, like LAIF, they have a quarterly rate, right? And so, there's no obligation of an agency to go back and imply that there's a monthly distribution of interest earnings. They're going to just actually treat it as earnings on the day they get it from the pool, not on some less than or more frequent basis.

JOHN STANLEY: Yeah, I think that's right. For entities that are required to invest their bond proceeds through a county pool or state pool, that does limit your ability to take advantage of some of these demand deposit SLG opportunities. If you can't, for state law purposes, pull your bond proceeds out and invest them separately, it'd be very difficult to take advantage of certain options. Instead, you are kind of stuck with whatever the investment return is that those pool funds are giving you, and you may owe rebate or yield restriction on that basis.

CRAIG HILL: Yeah, that's a great point. And I will say, as a case study, we have been involved with a couple public agencies who have moved their money out of LAIF just so that they can then direct the investments. Because that was a permitted investment to go into LAIF but likewise, they could pull the money back out, not spend it, but reinvest it through the trustee or the paying agent directly into something like a demand deposit SLG.

ROBERT BERRY: Okay. We have a couple of questions here. I want to see if we can hit these quickly before the bottom of the hour here. Question for clarification about the same rules for commercial paper arbitrage rules. How do they apply differently or are they the same for commercial paper?

JOHN STANLEY: It's a great question. The rules apply the same. As a practical matter, it is often more difficult to meet the rebate exception. Focusing on the 18-month exception, for example, which requires you to spend a hundred percent of your proceeds within 18 months and a certain amount by six months and a certain amount by 12 months. Well, if you have a commercial paper program where you issue a hundred thousand dollars on day one, and then you issue $5 million a year later, you're not going to qualify for that rebate exception because your proceeds didn't come about until some point later. Similar issues can come up for drawdown loans where sometimes it is difficult to meet these exceptions. The advice I usually give for both of those, and I think many drawdown loans are set up in this way, is the proceeds are spent almost immediately. You draw and you spend, or you draw specifically to spend a contractor invoice or something like that. Having commercial paper proceeds drawn and immediately spent in reimbursement of costs that have just been paid is really the best way to avoid any rebate issues and yield restriction. Otherwise, if you're pulling a bunch of money and setting it in a construction fund, it may be difficult to meet an exception and you otherwise have to continue to track.

SIMON WIRECKI: And the only thing I would add there is in our last case study about current refundings, there is an interesting corollary to issuers who use CP and then do a new money financing to take that out, a similar type of strategy, maybe a little more complex, but could be considered for earning a 90-day arbitrage period when you are using new money proceeds to redeem CP.

JOHN STANLEY: Yeah. My only quibble with that is I wouldn't call them new money proceeds because they're refunding proceeds, for tax purposes. But yeah, when you're refunding commercial paper, you may think of that as new money bonds, but potentially you have the same 90-day escrow opportunity.

ROBERT BERRY: Right. Well, we're at the bottom of the hour. We're going to close out our program before we sign off. First a huge thank you to Craig Hill, John Stanley, and Simon Wirecki for your preparations for this webinar and for sharing all your expertise in today's program. Before we sign off, I'd like to quickly draw your attention to a couple of upcoming in-person CDIAC programs. On May 22nd in Pomona, CDIAC will present current topics and practices in land-secured and development finance. This will be a full day exploring the current conditions in the land secured and housing sector, new applications for land secured financing tools, and opportunities to couple land secured and tax increment financing tools together. Then in September, in Southern California, we're still working on the location, but it will be in Southern California, we'll be presenting our three-day full immersion debt essentials program. This covers everything from pre-issuance planning through post-issuance administration. This program is really targeted at new finance staff. Those that are new to debt management staff from infrequent issuers, elected officials, but even more experienced finance professionals get a lot of value out of the program. There's always something new to learn when you assemble a faculty of 40 or so experts in a room for three days. So, the full program and details, registration information, especially for the Land-secured program is on our CDIAC website. And finally, we'd like to get your feedback about this webinar session. Please spend just a few minutes when you receive our post-program survey and tell us what you think. It's all very helpful to us, and we all appreciate it here at CDIAC. On behalf of our presenters today and all of us at CDIAC, including our education team, Angela Ayala, Trista Zepeda, and Anna Ramirez, I want to thank you all very much for joining us. Have a great day.