

TRANSCRIPT

New resources for bond investors

Richard Carter: Good afternoon everybody. Thank you for joining. And as you can see here from this first slide our topic today is: New resources for bond investors. We're going to be looking at a number of tools that we've recently developed in the Fixed Income squad of ours to help investors with their bond portfolios as part of the broader strategy that they have with Fidelity. So, our agenda this afternoon is to look at four errors specifically -- and we'll do this through the demo in a few minutes. We're going to be looking at bond charting -- a recently added feature of our website. Also, one that has been there for a while but we thought it would be a useful refresh for some clients and also maybe introducing it to others, called depth of book. And then we'll go into two areas that are more specific for the muni area -- the bid wanted, and I'll look at municipal bond research.

So, again, I guess today's conversation will be -- as you can probably infer -- predominantly focusing on corporate bonds and municipal bonds. With that in mind, I just wanted to provide a little bit of context before we dive into the demonstrations as to maybe thinking of why we think these tools will add value. And for that we're just putting this slide up here where we compare the stock market with the bond market. And there's a lot of similarities and I think

we've tried to -- in these tools -- in a way kind of bridge some of the divide. It is worth thinking about how these two markets operate, particularly the fact that the bond market, obviously -- as many of our listeners will be aware of -- is more than just corporations. I mentioned a second ago the municipal area. Of course, the bond market is very diverse across different sub-products, sub-bond categories. Municipal bonds, government bonds, agencies, etc.

The size is quite different. The size of each product is varied by the corporation in the stock market case -- market cap -- whereas in the bond market you're confronted with a lot of different bonds from many thousands of issuers. Perhaps a key one here why the provision of tools has been a challenge in the past is that the equity markets through the centralization of their marketplaces -- in the NASDAQ, NYSE -- provide, as a byproduct, a lot of useful information that's already codified and readily accessible -- certainly to institutions. But in the bond world -- largely based upon its historical over-the-counter trading nature -- a lot of this information is only really just coming about and is something that we can absorb and create tools and analytics out of.

And finally, we'll touch on pricing transparency. The ability to see pricing varies a lot on the bond market -- treasury market, very liquid; the muni

market, less liquid. And that makes pricing a challenge there. And finally looking at some of the numbers -- so stock and bond. Now bond market is -- this is the US -- you can see a fair bit bigger than the stock market -- although the stock market has risen a lot recently of course, but so has the bond market through its recent issuance of corporate bonds and treasury bonds in particular, in the last 10 years. Daily trading revenue, again, reflective of so much volume going through in the treasury market in particular -- 852 billion a day, daily trade volume.

And here again the number of securities -- think of this -- versus around 5,000 for the stock market. Over a million in the bond market. And that again is a challenge when one comes to look at analytics that use pricing and some type of a frequency of pricing data in order to provide a rich source for which to drive an analytic device off of. One example here we took was Ford. You can see that the bond outstanding, with the debt outstanding -- roughly 80 billion, a couple of times bigger than the stock evaluation. And in terms of complexity the number of issues at Ford are several hundred versus one stock.

So now let's jump into the demo. And we're going to start with this topic -- bond charting. And let's begin -- Steve, I'll bring you in -- looking at the corporate bond space. Let's start from the beginning. Imagine a customer is

thinking about buying a corporate bond but they may be familiar with buying a stock. Why do you think sort of the mental bridge between buying a stock versus buying a bond is quite a divide for many people?

Steven Traugott: Well, Richard, I think a lot of that ties back into what you were just talking about. So, you look at the different types of markets that you have in the bond market and the equity market where with Ford, the example that we provided earlier, you might have hundreds. You could have certain banks, like Goldman Sachs, that are going to have thousands of different offerings within their name. As opposed to the equity where you're really just going to have the one ticker symbol for each of those. In addition, I think the bond market can be a little bit more fragmented because the bonds are traded over-the-counter as opposed to on a centralized exchange. So, although we try and bring you a number of different aggregators and things and create something closer to what you might see in exchange, it still is not quite the same as what you're going to find in the stock market where everything's very regulated.

And then, lastly, it comes down to transparency and liquidity. Once again, the stock market you have transparency -- you can see where it's trading on the stock market any given day. Same thing as far as liquidity. It's very easy to get a quote on Ford, Goldman Sachs, whoever it happens to be. But when we

look at the bond market you can have bonds that don't trade on certain days. The pricing is a little bit more difficult to understand on different bonds and we'll kind of jump into some things here that are going to help you, as an investor, understand some of the tools available to help you understand those two topics specifically.

Richard Carter: All right Steve that sounds great. Okay so let's maybe just dive into that theme of yours there -- transparency. How would you sort of visualize either the presence or the lack of liquidity through some of these tools? I think here we're looking at our charting capabilities, right?

Steven Traugott: Correct. So, when it comes to transparency that really can take on a number of different forms. It could be are we looking to just get a price on the bond -- get a quote -- whether we're trying to buy or sell. Could it be seeing if we have a competitive quote -- how good is the price that we're seeing currently the live price on the market. And then it could be how much am I being charged for that specific trade. So when we're looking at transparency it could be a number of different things we're looking for so the tools like the charting are going to make it a little bit easier to understand where the prices are coming from and if that price that you're seeing in an active market or a live market is a competitive price.

So, let's say we wanted to take -- think of any example. So, we're now looking at the screen fidelity.com and if we wanted to get to our Fixed Income homepage we would just go to the top here -- we have News and Research. And then we would scroll down to the Fixed Income Bonds and & CDs. And that'll bring us to our Fixed Income homepage, which many of you are probably familiar with, where you can search. We have our Yield table at the bottom to see the different yields currently in the market. But let's say we wanted to -- like Richard you said -- find a specific offering for a corporate. So, the easiest way to do that is to -- let's say we had a name in mind that we wanted to look at -- we would go through our tool here that allows you to search by name. We want to click Corporate. And then, for this example, let's say we want to choose have Apple bonds and see what they have. So, we type that name into our Search Corporate Bond box and then we'll hit search. So that --

Richard Carter: So, what do we see here?

Steven Traugott: That will bring us to our look here. So, as we kind of talked about before with a corporate bond we have Apple is one company. They have one set of bonds. In this case with Apple we have 42 different offerings currently available on fidelity.com -- so different maturities, different time frames that

you can look at, different structures. So, we can go ahead and click right on the -- where it says Apple Inc. and that will bring us to our results page with all 42 of the offerings that we currently have for Apple bonds. So, let's say we have a certain time frame in mind that we want to look for. In this case let's search for something about five years out. If we look at that we can sort by our maturity date and it brings us to our screen, so everything's sorted. So, we'll just go out to 2025 and we'll find an option here for Apple that's about five years to maturity. So, in this case a January 13th of 2025 is our maturity date. And the first thing we see here is there's a lot of numbers. There's a lot of numbers and that's one of the other differences between looking at bond and maybe the equity market. We have a lot of different things you're going to want to consider prior to making that purchase.

So, if we look across the screen, we have our description, coupon, maturity date. Here in the hyperlink we have our call date, ratings, and then we start to get into some of the numbers that we want to look at. So, on the left in our shaded box here we have the price and yield on the bid side of the market. And the bid side of the market focuses on where you as a customer -- if you were looking to sell the bond -- where you'd be able to currently sell it. So right now, that price 104.397 and that corresponds to a yield of 1.778. To the right of that we have our offering price, which is going to show us the price --

once again, as a customer -- where you were looking to purchase the bonds this is the price that you would pay currently in the market. So, 104.438. So immediately something that jumps out and me as an investor -- as somebody who knows bonds -- you can look at it and say, "Well the spread on those bonds -- the difference between the price that you would pay to sell and the price that you would pay to buy the bonds, very, very low. So very condensed spread right now on the market for (overlapping dialogue) --

Richard Carter: Sorry – indicating quite a bit of liquidity there.

Steven Traugott: Correct. Exactly.

Richard Carter: I think now as a stock investor, though, at this point I would say, "Well that's great. That's the current price, but -- help me now with this context issue. How do I know whether this price is high versus recent history?"

Steven Traugott: Exactly. So, what we're going to do we make our way, we have our yields here -- 1.769 is the current yield to worst, which would be including the call date. Then we have our yield to maturity -- meaning, if we held the bond to maturity and it did not get called. And then we scroll over and we see our third-party price, which the third-party price is just a price that

we use -- it's a third-party vendor that we use to price bonds in the market at the end of the day. So, once again, a little difference between the stock market and the bond market, stock has a closing price for it at the end of the day -- it closes at a particular price -- that's what you're going to see on your statements. That's what you're going to see on your positions page. Bonds it's a little bit more difficult to come up with that price so we use a third-party vendor that has a proprietary algorithm that they use to take into account the yield curve, recent trades, other different options as well. And they'll put that all together and come up with a price to use at the end of the day.

So, we have all these prices to look at. And if you said, "Richard, well let's see. How do we tell how well that looks based on other recent trades that have gone, right?" So right here under our third-party price we have the ability to click the button that says "View." So, I'll click on that and that will bring us to our new -- this is more of a redesigned portion of the page here. So, this is our recent trades. We've added some nice, new features to this page, redesigned it a little bit, updated the look and feel of it. We also now allow customers to toggle between seeing just customer buys, customer sells, or dealer-to-dealer trades. So, let's say I only want to see customer buys and sells, I can just unclick the dealer-to-dealer trades and the information on the bottom will update.

Now our --

Richard Carter: And just to clarify -- sorry -- these historical trades here, they're not just Fidelity customers, are they? These are the market. Is that --

Steven Traugott: Correct. So, these are going to be all trades that are done in the market -- not just Fidelity customers, not just trades done with Fidelity in some form or another. This is any customer who has purchased or sold this particular Apple bond in the market on the dates and times put here.

So, we want to do a little bit more research -- kind of what we were alluding to here earlier is our new chart function. So, if we go up here to the top left you can see we currently have a table. We've added this chart function, which I will click on, which is going to bring up our new chart. And so, there's a lot of different elements here so we'll kind of tackle them one by one.

Richard Carter: And it's going up?

Steven Traugott: Yup. So, we have a number of different things. So, once again, we show you the bond that you're looking at up top. We still have the ability, once again, to look at customer buys or just customer sells, dealer-to-dealer

trades -- whichever you happen to be interested in. We also will allow you to look here -- we can look at either price or yield, depending on what's easier for you as an investor to look at. And as we can see here there's -- in this particular bond -- liquidity is not too bad. There's been a number of trades over the last month, just about, that we see here on the chart.

So, we kind of color-coded each of the different trades here so if we go, let's pick this particular trade here at the end -- a recent one from today, about an hour ago. And this is a customer buy. It would give you all the same details that you would see on the table form. So, we have the date and time, the customer buy, the price, the corresponding yield, and the quantity. So, you can see all that information there. Same thing with the sells. If you were to pick a sell order -- let's say we just try to look at a couple of recent sells. Everything will adjust. Same thing. We have the information about that sell order. Gives you all of it right there -- very easy to see.

Now the nice thing about chart -- let's say we go back and look at our customer buys and sells. Getting back into the idea of a couple of different things. So, number one, we can see the spread -- which we talked about earlier. So, you see there's a number of trades here at the top of the -- kind of top of our chart - - that are showing that those customers pay a little bit more than what other

customers recently had paid for their purchase. And then you can see maybe the difference between where the sells are and the buys are in the chart, which once again gives you an indication of the spread you might see on the bond.

It also gives us a nice idea to look as far as trends on the price -- so where the price has been going recently. You'll see here we've been trending up in price just slightly as the bond market and yields have come down. Correspondingly prices are going to go up -- that inverse relationship that you have there. So, when we see all that we track it so some of this is mostly market driven. Apple -- this company and stock has done very well over the last few months, which you can see in any equity chart. So, this, you know, you'll see a lot of bond charts can perhaps follow suit on those as you see... (overlapping dialogue)

Richard Carter: It's a good reminder on how the corporate bond market often does follow the equity.

Steven Traugott: Correct.

Richard Carter: I was just curious...is it possible -- if I wanted to focus in on today's trading, how would I do that here? Because if I'm thinking of making a purchase I might be very interested in this morning's activity.

Steven Traugott: Correct. Good. So, we gave you the function and the ability to do that as well. So, we have this nice slider on the bottom. And you'll see it covers about a month. And as we just bring that in to closer for today the chart will adjust. And let's say we just look at the last -- you know, we're here -- the last couple of days here. You can kind of focus in on whatever time frame it is that you're looking to focus in on. So, this gives you a better picture of where it's been trading since the beginning of this week.

Richard Carter: So again, what seems to jump out to me here is that this an Apple bond -- so big, big company, big security, big equity. Yet, how many trades -- you can almost count them on a couple of hands, right, over the last few days. This is amazing.

Steven Traugott: Correct. Yeah so because, once again, when we looked earlier at Apple and there was 42 different offerings. So even if you're interested in the company and you're interested in their bonds you could have customers buying any one of those -- looking at different time frames, looking at different maturities. So, the individual trades on each of those options can still be fairly low.

Richard Carter: Gets diluted...

Steven Traugott: Exactly. Exactly.

Richard Carter: Excellent.

Steven Traugott: So, we can also go back. We provide you the ability to get more history. So, if we click the buttons here on the end, we can see additional trades and I'll show you a wider timeframe. So, for a bond like this, once again, and that's pretty active -- fairly active trading -- we can see the trending in a little bit longer term period as well. So, it'll keep going back for trades there.

Richard Carter: Excellent. Anything else people should think about? Is this available for all the corporate bonds we offer Steve?

Steven Traugott: So pretty much everything we can have... I mean, obviously, some of the charts are going to look a little bit different depending on the amount of trading that the individual bond has. But this is available on corporate bonds and you're going to have it there for all of them. And I encourage everyone to check it and understand where it is. So, to kind of tie it back into what we were looking at earlier. If we close this and go back to our price, we can see that trades recently. We've seen a buy as high as 105.77. Kind of low is 104.50. If

we go back to our offering page, we see the current offering is 104.438 -- so a little bit better than even the last trade that we saw. So, the pricing there -- as an investor I know that if I'm going to go make purchase here my trade is pretty close to our IPC price. It's small spread, good liquidity. From the chart we can see that. And the pricing fits right into where the bonds have been trading. And in this case the price is even a little bit better than where the last trade we're showing on the chart is.

Richard Carter: Well that's fantastic and I think that leads us into our next area to cover, which is this idea of depth of book. So maybe we can explain again how at Fidelity we believe in not just showing the bonds that Fidelity's traders owned, but actually we reach out into the marketplace and aggregate odds from many different dealers. And this depth of book view is very important in illustrating that, I think. Right, Steven? It's sort of we believe that it's a great way to show, again, another angle on liquidity.

Steven Traugott: Correct. So, once again, we're here on our results page. If we go to column here where we're looking at our depth of book -- it's a little blue kind of book icon. If we click on that it brings up our depth of book. So, when we show you on the original page, we're going to show the best price both to buy and sell at.

Richard Carter: Which is the green.

Steven Traugott: Which is the green highlighted price here that we're showing right now. So, what Fidelity does and, I think, why we can see such a good inventory that we show here, is we aggregate inventory from a number of different electronic dealers. So, we have three main electronic platforms that Fidelity uses to aggregate inventory. And each of those platforms include hundreds of different dealers across the country. So, you have large dealers that most people would be familiar with -- your bigger firms. And then you have smaller regional dealers that would also help provide liquidity -- especially in the muni market and things like that. And we'll talk a little bit about that later. In addition, we can see here that it allows us to show -- in the depth of book -- the entire market through those aggregation platforms that we're able to see.

So once again as an investor I see here that we have close to 10 different ask prices that are currently available. There's about 10 to 12 different bid prices that are available. So, I can gather from that a little bit of confidence -- as an investor -- to know that there's liquidity in this purchase. So, if I'm buying now and I think, "Well, maybe I won't hold this to maturity. I might need to sell it at some point." Well this looks like something that hopefully I should be able to

get a price on if I do need to sell it because it looks like there's pretty good -- there's a number of different dealers that would be looking to buy it from me.

Same thing for an investor, you can look at a buy-side to say, "Well, I have pretty good confidence that the price that I'm getting is good because I can see all these other dealers are offering prices that are not quite as good as the best price that we're showing online.

Richard Carter: This looks pretty static. Is it updated?

Steven Traugott: So, this is updated all the time as new dealers post offering or pull-down offerings this will update. The prices will adjust all the time based on market. So, you will see that.

Richard Carter: Maybe you could just explain this quantity column here, Steve. Just elaborate a little more the minimum in brackets there.

Steven Traugott: Sure. So, in each deal -- so there's two different items that you have there. So, each dealer when they post their offering, they post the number of bonds that they have available -- so the total that you'd be able to purchase -- which is the number outside the parenthesis. And then they have

a minimum that they're looking to do. So that minimum could be based on a couple of different things -- different types of bonds and different issuers. So that minimum might be part of why their choosing two or five or whatever it happens to be. Or the dealer may just have a preference for not doing something less than say, you know, we see 10 here, for example. They may not want to do a trade for less than 10. Therefore, they set their minimum by that dealer as 10. And then, as an investor, you would need to buy at least 10 from those particular dealers in order to enter a trade.

Richard Carter: All right. So, if I only wanted to buy five, what would I then do?

Steven Traugott: In this case, because five is higher than the two minimum for the best price you'd be able to go and purchase at best price. So, in this case the best price has a lower minimum, so it encompasses a large amount of trading. In some cases, it can be a little bit different. For example, you see at the bottom there's one that's a 20 buy minimum. And so, if you were looking to buy five you wouldn't be able to purchase that particular offering.

Richard Carter: Excellent. Well great Steve. Thank you. Well that's very interesting. And again, this is the context of this corporate bond. But I think we'll maybe get a chance to show later that this is also a functionality available for munis.

Maybe we could transition a little bit to the muni market now, Steve. And we looked at that slide earlier on as showing you how many bonds that exist -- over a million in the US and I think something like half a million exist in the municipal market. So, it is quite a different animal than the corporate market -- lots of small townships and utility-like entities such as sewage and housing and -- revenue bonds we call those -- that exist. And, obviously, there there's not quite the same liquidity as you would see just in this Apple bond.

So, given that, how are we -- again, Steve -- trying to make this market -- the muni market -- more accessible to people and showing them -- through tools and through visualization -- before they invest -- what they can look at to gain a sense of things like liquidity and the presence of good pricing.

Steven Traugott: OK, so... really, you're going to look at all the same tools and how they're going to be reflected in the muni market. And we'll see some nuances and differences that I'll point out as we go through here that we're going to see between the corporate market and the muni market. So, once again, we go back to our main page. And let's say this time we're going to look for a municipal bond so we will choose Municipal from our search. And let's say we'll go and look in New York. So, we type New York into our search bar.

Richard Carter: So that's very high-level... just the state

Steven Traugott: Yeah. Just the state. Let's say I'm a resident. I want to see what's available -- you know, what the state has. And we'll go from there. So, click on our search and here we can immediately see differences. With Apple we had just the one offering, 42 different offerings within Apple. But if I typed in New York we have 23 different terms that come up and almost 3,000 different matching offerings. So quite a difference between Apple and what we see in New York.

Richard Carter: That's just one state.

Steven Traugott: And that's just one state. And this is really just high-level issuers. Within New York you're going to have individual cities and towns as well within New York that wouldn't show up as part of this search but also could be available. So, this shows that we have a number of different issuers. So, when we look at New York you can have, say, housing bonds, you have general obligation bonds of both the state and the city. You would have different other types of revenue bonds, power bonds, whatever it happens to be. So, let's say for the sake of this demonstration let's pick our top one here. And this

happens to be a New York Convention Center Development Corporation bond.

Richard Carter: All right. Who would've known? So, this looks like the Apple table results.

Steven Traugott: Once again, our results table -- let's say to make it a little bit easier we'll search by maturity date. So, the first thing, for me, that jumps out is we notice that there's not really a lot of bid prices that are available here. So, once again, in the left side here's in our column where we have bids -- you know, left side of our shaded column where the prices are there's no bids. So, the reason for that is that in municipal market most of the time you're not going to see quite as much depth of book. You're not going to see as many active bids available because there's a lot more securities available -- individual CUSIPS -- so the identifiers used to identify bonds, you have a lot more of those. Therefore, we're not going to see as many days in this case. So that jumps out to me. As you can see, as well, in the depth of book we don't quite have as much depth of book that we might have seen in the corporate market.

Richard Carter: So those icons only display when... (overlapping dialogue)

Steven Traugott: ... only display when there is the depth

Richard Carter: If there's not depth, what does it mean again if there's no depth of book?

Steven Traugott: If there's not depth of book that means we have one dealer who's offering that bond and that would be it. (overlapping dialogue)

Richard Carter: So, each line there is a single dealer offering that single amount --

Steven: That single amount --

Richard Carter: -- quantity (overlapping dialogue)

Steven Traugott: -- for that single CUSIP. So, let's look at a similar time frame. This one goes out to November 15 of '24. So, a few months earlier --

Richard Carter: There is a depth.

Steven Traugott: -- we do have a little depth of book. So, if I clicked on that you'd see there's two offerings.

Richard Carter: Quite different.

Steven Traugott: But once again we had millions of bonds available for the Apple bond in quantity but here, we have a total of 15. And, once again, if you were looking to buy five you can buy them at this price -- the best price. If you wanted to buy all 10, you'd be looking a slightly higher price -- the 117.987.

Richard Carter: But behind the scenes, Steve -- just to interrupt you for a second -- behind the scenes we are still connecting to those dealers and trying to build the book as much as we did with the Apple bonds, right? It's no different in the approach.

Steven Traugott: Correct. So, it's the same. We're using the same aggregators. We actually have a couple of direct connections with different places that we can do that. And so even with those connections and all the dealers that we have - regional dealers -- you're still not going to see as much depth of book on the muni market, unfortunately.

So, we'll move on to the charting. So how would that look for a bond like this compared to what we would see on the corporate side? So once again I just click that view button underneath for our recent trades. Brings us to our table

view, which we discussed earlier. And then let's go right to our chart view. So, once again, here we can see a number of different things jump out right away. Obviously, there's not as many dots on the chart there. So, we're not seeing as much trading. As well, if we look at our time frame that the chart shows, because there hasn't been as much trading, we're seeing a much larger time period that the chart shows here. So, these are all the trades from pretty much the past year in this particular bond. So quite a difference -- quite a stark contrast that you'll see here between what we have showing compared to what we have for the Apple bond.

Richard Carter: Quite a dispersion between prices on any given week or day, it looks like.

Steven Traugott: Yeah, the spreads tend to be a little bit higher on muni bonds because there's not as much liquidity that you're going to see -- which we saw from the lack of depth of book. But once again you can take a look and see recent trades. The last trade here being on February 6th as compared to... we saw something on the Apple bond from earlier today. So, we see a buy and a sell from that day. So, as an investor if you're looking to it you can do the same type of research. We had those trades recently. Price of 116.8 and then 117.3 was our buy -- which is a 1.247 yield. If we go back to our offering we're right

around the same price -- 117.110, which is a 1.27. So, we're pretty much in line with where recent trades are. So once again feeling pretty confident about the price that's showing on this bond reflecting what I would expect as an investor based on the research (overlapping dialogue).

Richard Carter: So, Steve -- and I know that this next question is a little bit... sort of not typical of many people buying muni bonds to buy and hold to maturity. But if -- and you're showing here there's no bid prices... If I wanted liquidity if I was a holder of this bond, can you just illustrate for our audience how we have tried to create liquidity for them. If there's no visible liquidity and I want to sell what do I do?

Steven Traugott: So that's a great question, Richard. So, what we have done is we give customers the ability to request a bid quote. And so, we'll kind of go through how we would do that in this case. So, if we went to our account -- you go to your portfolio, which is the main page.

Richard Carter: So now we're looking at the bonds you own.

Steven Traugott: You're going to be looking at the bonds you own so in this case let's go to our --

Richard Carter: Our test account...

Steven Traugott: -- this is our test account, so we'll go to our positions here. And let's say we were looking at this since we were talking about munis and liquidity... let's say we're looking at this. So, there's a taxable muni that we have in the account here for demonstration purposes. And let's say we were looking to sell. We own 10 of these and we need to sell them off. So, we just click on our position -- sell button is there. Click on sell. So, what happens is that it brings us to our request bid quote page. So up on the top right here in this corner we can see the current real time trading -- which, in this case, we have no active bid price. We have no active add price for this particular bond. So, in that case what we're going to do is we're going to request a bid quote.

Richard Carter: So -- sorry -- and if there were active bids it would produce a trade ticket presumably.

Steven Traugott: Correct. If there's active bids -- so, for example, on the Apple bond that we looked at earlier there were a lot of active bids. So, if you were looking to sell you can see the prices right there. It brings you right to a trade ticket. So, in this case what we do is we go out to those same dealer network that we had, and we spoke about earlier. It's the different aggregators, different

dealers. We can put in our quantity here -- which we own 10. And we hit our submit request for bid quote here. So that sends. It says, "Information has been sent." And what that does really it starts the clock. And what I mean by that is if we click our bid request page -- and this is really the new dashboard that we've created -- we get to our clock which I mentioned earlier. So, we can see that there's been a number of bids requested in the account, different statuses. The one that we just requested occupies the top line.

Richard Carter: Oh, so it's right there, immediately.

Steven Traugott: Right here immediately. So, we just sent out there it's now -- so, with the municipal bond we give those dealers 60 minutes to come back to us with what they think is the best price that they're willing to provide on this particular Babylon, New York bond. So, the nice thing is -- and this is kind of a new feature that we have on this -- is right here in our bid status it tells you as a customer exactly when the bid's going to come back. So, I know at 1:39:09 PM today that I can come back to this page and I'm going to see the best price that came back from that entire network. We have our quantity, CUSIP, all the information is here.

Now previously we had -- just for example, once again, the other day you requested a bid quote on this for five. It tells us at that point the bid now is expired because it was the other day -- bids usually are only good for a certain period of time once they come back for the current day. That one was good until about 4:45 PM Eastern Time on the 11th. And we got a bid price back for 109.53.

Richard Carter: And so again what if a couple of dealers respond. How do we sort that out for people?

Steven Traugott: So, what we show for customers here is the best price. So, Fidelity, behind the scenes, we aggregate all the numbers that we get back -- all the prices -- and then we send the customer the best of those prices that we get back. So, for corporate bonds -- sometimes they might be high yield -- you can get... there may be a handful of bids we get back. For municipal bonds -- larger issuers, say New York City GO or California State GO we could get upwards of 50 or 60 different responses back, but as a customer you're just seeing the best price that you can sell it at from those dealers.

Richard Carter: And you mentioned also Steve the time was 60 minutes for muni. What is it for corporate?

Steven Traugott: For corporate we made it a little bit -- because the market moves a little bit more -- we made it a shorter window. It's 15 minutes. And it'd be same for agency bonds and CDs are now 15 minutes as well. And the nice thing is, is once we come back here at about 1:40 in the action column it'll come back with a price and you have the ability to just click a sell button right there. Let's say the price looks good to you. Click that sell button and it brings you right to a trade ticket. We'll fill in the price for you, the quantity, and it's all set to go for you to sell it right there.

Richard Carter: Great. So, you almost like virtually created the depth of book.

Right? So, you create the depth of book. But ultimately, you're going to just show the client here the best price --

Steven Traugott: Correct.

Richard Carter: -- that meets their quantity. And then how soon do they have to react. Because I see here a number of them having expired -- you mentioned that was done, obviously, yesterday. But what about in the day itself?

Steven Traugott: So that can vary as well. The dealers that respond are allowed to set the time frame that they would like.

Richard Carter: They're going to hold the price.

Steven Traugott: That they're going to hold the price. Hopefully, obviously some of that depends on market movement in the day if there's some sort of event or something that can change but that's generally when they think that they can hold that price until. A lot of times in munis -- from what I've seen -- the window tends to be a little bit larger. You might get until the end of the day, till 2:00 o'clock, till 3:00 o'clock if you do something in the morning. For corporates it can be a little bit shorter window because the market will move a little more. You have stock price movements. You have news that comes out a lot quicker on different corporations, especially a lot of times the ones that needed to have a bid quote you don't have active markets online tend to be high yield bonds so the price fluctuations can happen on a little quicker basis. So, the windows might be a little bit smaller. But, as a customer, I can see exactly when it's going to come back, so I know when I have to be there to check my page and respond.

Richard Carter: And don't we also have another way of notifying people?

Steven Traugott: Correct. In addition to being able to check this page you can also receive an email alert which will hit your inbox right when it comes back -- once again about 1:40 you'll get the response. It'll tell you what the price is, and you can act from that email as well. It'll allow you to log in and sell it right from the alert.

Richard Carter: That was terrific, Steve. Excellent. Thank you so much. Okay so let's take a little breath here. So we've covered a lot about sort of the mechanics of the market -- inventory aggregation, as you mentioned, the ATs, alternative trading systems, that we partner with to bring in a broad inventory, show the most competitive pricing -- so we have depth of book -- provide the context through the charting. And now with this bid request in the dashboard, the ability to even try to generate liquidity where there may not currently be any, from that same dealer network.

Maybe in the last 10 minutes we can just sort of transition, Steve, to another new feature we added, which is more on the fundamental research aspect of life versus, say, pricing based. And, again, look at munis because munis is an area where there typically isn't a lot of reporting that happens, right. I mean compare this to the Apple equity research you would do there must be so

much news every day, so many analysts wishing to communicate their latest thoughts on it. But what do you do in a space like munis where there's so many issuers, so many small bonds? How do you make an informed decision separate from price?

Steven Traugott: So, Fidelity is teamed up nicely with two companies recently that provide different types of research and information for customers looking for more research on municipal bonds. So, we'll take a look at each one of them. The first was BondLink and the other is DPC DATA. So, we'll do a search again, once again in the municipal space because these are both for just municipal bonds -- the data that we have here. So, in this case let's try California -- another large issuer. We'll search for bonds in California. Once again, we get a lot of different responses here. We'll just do some state obligations. So, if we look at the first line item here you see right under the description on the left, we have a link here it says, "More issuer information from BondLink." So, if we click that, we're going to be going to a BondLink webpage, so we'll get our nice --

Richard Carter: Disclosure there.

Steven Traugott: -- disclosure there. And it brings us to a webpage. So BondLink has partnered with a number of different issuers to help make it easier for customers to have an aggregation of information on these issuers in one place. So, in this case we had the state of California -- couple of quick facts as far as the general obligation bond ratings, the economy, the population. We have a message from the state treasurer about California and things that are going on there.

And then we have a number of key links to the right that you can look at as a customer -- so, kind of information about the fiscal officers, different documents, ratings, upcoming events, MSRB EMMA links... so, it's a lot of different information that you can pull together and see, and it's an issuer provided to BondLink -- they provided information to BondLink and then BondLink puts it all together in a nice webpage for people to see. So easy way if you see that link underneath the description. Now, BondLink does not have webpages for all issuers, unfortunately. They're working to kind of build a network and they're continually adding new issuers and new pages. But for the ones that do have that link on the results page they will have the ability to see one of these pages. And the format's pretty similar on all the different pages...

Richard Carter: Across-issuers, right?

Steven Traugott: -- across issuers. So, it's easy to read. Once you get used to looking at them you know where you can go for the different information and you can pretty easily navigate to exactly what you're looking for.

Richard Carter: Excellent. Yeah, very user friendly and I think -- from what we understand working with BondLink -- that the issuers themselves love this opportunity to get more information out there and the question is where for them to distribute it so it can be found efficiently, right. And so, here's a good venue.

Steven Traugott: Exactly. I mean it behooves the issuers to have the customers or investors knowing about what is coming up. They're looking to raise the money and so they want to make sure they can investors. Specifically, for a lot of these places they would like retail investors to be investing in the bonds for their state or city or whatever it happens to be.

Richard Carter: Great. Well let's now transition to DPC DATA you mentioned. And this is made more for the -- if you like -- truly beating the bushes for every bit of

information we can find out there perhaps in the case where there isn't a BondLink connection.

Steven Traugott: Correct. So, in this case we'll still look at California and we'll click on the description here. And that will bring us to our bond details page. So, there's a few tabs at the top. We have our general overview which gives you the general information ratings and a number of other things -- call protections and things for the bond -- pricing performance tab, which gives you some analytics and some more complex numbers and things if you're interested in those. And then lastly there's a new tab that we've added which is our news and documents which will bring us to the information provided by DPC. So, when we partnered with DPC it was very easy to see the information that they were providing was going to be very helpful to investors. So, they provide a number of different things. It starts right at the top with information about the issuer, news about the issuer. The nice thing about this is these are headlines from news sources from all across the country. So, you can even see here we have the first article is from the *San Francisco Chronicle* and the last article is from the *Philadelphia Inquirer*. So it's a lot of different things that either mentioned California as a state, may have an impact on a decision that you have as an investor to look at California -- a lot of different things but it just kind of gives you a way to look at some recent articles that have been posted,

some news about the state, and what different people in different areas are saying about it.

Richard Carter: Yeah I think one of the nice things about this, we felt -- I mean, this is California, there's always a lot of news written about California -- but the idea that the local news can often be the news that perhaps gives you insight into something before or in addition to sometimes the bad news, right. And often the bad news makes the big headlines in the national press. But there's another level of news which is equally valuable if you're going to be investing. Might be you had to do some leg work at the local level rather than wait for the big blow ups that happen nationally.

Steven Traugott: Exactly. And as we mentioned earlier a lot of smaller issuers, they're not necessarily going to get a lot of press in big newspapers and so the local paper's going to be a great place to see some information on those. If we look down a little bit further, we have some of our documents and material events, continuing disclosures. So, this is another great place for an investor if you're interested in reading an official statement, they have access to it there. If you want the document, you would just click right on the hyperlinked date from when it came out and it will bring up a PDF of the document. If it's a statement it's extremely long, very legal. If you're into that kind of thing --

Richard Carter: Well that's a main stay.

Steven Traugott: That's available all the time for munis. But here we can look at material events or continuing disclosures which -- for material events and continuing disclosures right now Fidelity sends alerts to customers if they signed up, if you own the bond we'll send you an alert if anything comes in -- ratings changes or financial filings -- you'll be made aware of those. But, at times, the information may not be very clear in the alert. And so, you say, "Well I'm not sure exactly what are they talking about."

Richard Carter: Exactly, well it's very short, right?

Steven Traugott: We're a little limited on the space that we have, and I'll put an example in there. So, this is where you can go. Once again, you can click on the date and for this example it will bring up a PDF of the recent ratings change. Sometimes it will take a second and it will give you a full listing of what's going on, in this case, in that issuer event. So, we looked at the State of California. On October 14th they were upgraded from double A three to double A two. I can see that. It's very clear. An investor might say, "Well that's great. The bonds I own will upgrade."

Richard Carter: Just scroll down here, Steve, let's see the "Other Matters" ... so yeah that's quite a lot of... (overlapping dialogue).

Steven Traugott: (overlapping dialogue) ... just a little bit of other information about the filing and the notice and where it came from. So, it makes it very clear and it's very easy to understand specifically what's going on in that particular event.

Richard Carter: Well Steve. That's fantastic. I think we should wrap it up here. But just to recap, thank you very much. Fantastic to see all these things in action. So just for the audience we looked at -- from the vantage point of our aggregation of offerings to bring up big and accurately priced inventory to bear, our depth of book view, our charting capabilities. We showed the bid quote request functionality for when there isn't a necessarily a liquid bid. And lastly, we looked at some addition, some improvements we've made to help investors in the muni space make an informed purchase. So many choices as to where to begin this extra fundamental research from BondLink and from DPC can be of help.

END OF AUDIO FILE