New Fixed Income Tools for a New Fixed Income Market

Webinar Transcription

RICHARD CARTER: Well, hi. And welcome, everyone, to our webinar today from fixed income. It's a spotlight on new bond tools. My name is Richard Carter. I'm the vice president of fixed income responsible for our bond offering, our bond and CD offering that you see on fidelity.com that we offer to our retail customers.

I'm delighted to be joined here today by two of my colleagues, firstly, Shamit Mathur, and secondly, Steven Traugott. And together, we're going to be reviewing two new tools that we've recently been working on and installed into the live pages of our new fixed income charting package and secondly, our fixed income dashboard.

How to think of these two new capabilities is to see I think in the macro and the micro, in the big picture, our investors really want to understand the bond market better. They want to see what's happening today. They want to see how bonds have performed in a historical context and how they've performed relative to each other.

Now, going to the other side of the spectrum, as a bond investor, you really want to understand your own specific portfolio of bonds, how they've performed over time, how you're currently positioned, how your cash flow is currently stacked, all kinds of information, maybe even considering adding some bonds into your portfolio. What would that do to the all round statistics of the portfolio? So it's with those two thoughts in mind that we've been working over the last few months on these two capabilities. And so with that in mind, we'll start with the first one comprehending the bond market. It's a big field, but some of the questions that people might ask are things like the following. Let's look at the two-year note. How has it been trending?

We've seen yields fall recently, haven't we? But maybe we'd like to look at specifically today or go Zoom out and look at the last couple of years. From there, one could look at the performance. So not just the current yield of an instrument, but how have certain benchmarks performed over the last 1, 2, 3, 4, et cetera years?

I think, again, we've all been through quite a lively set of markets over the last few years where bonds fell in 2022 as yields rose and now they've recovered and have had quite a good year so far this year. And then finally, for the more expert investor, if you like, thinking in terms of spreads, the spread of a bond versus another bond, very effective way of looking at relative risk.

And here's an example of this. What's the yield spread of corporate bonds today? So with this in mind, we aim to help our investors see the bond market better. I'll turn it now to Shamit, who will take us

through this new charting package. And maybe Shamit you could just say a few words about yourself. Introduce yourself to begin with.

SHAMIT MATHUR: Yeah, thanks, Richard. Let me start by sharing my screen. All right. Good morning and good afternoon to our viewers. I'm Shamit Mathur, director of product development with retail bond and Citigroup here at Fidelity Brokerage.

As part of continuous effort to enhance and improve our current fixed income trading and research experience, we have rolled out changes to our fixed income research page with new, modernized, and market-leading charting solution. A new solution is interactive, accessible, and provide broader view to both our domestic and some international market.

So with that, let's navigate to the charting solution. The way we go about is on the fidelity.com you would see a couple of menu items up top. The third one you then research. Just click on that, hover over it, down there you will see fixed income bond and CDs.

We click on this, it will take you to our fixed income landing page where you will see the highest and the median annualized yield based on the inventory that we have. And if you click on it, you can see the inventory for that specific maturity and the product.

On this page tab you will see next to the find bond series, which is where we are, a research and market tab. Click on this one. This is the page we have enhanced to show a new charting solution. Then today we are going to look at four chart as part of the solution, the two new.

The first one is the price and the yield chart-- price yield and the spread chart. The second would be a replacement market and benchmark chart. The third will be replacement yield and curve. And the last would be a new addition, second new variation of the yield curve video, what we are going to see. So with that, I'm going to end. One thing, if you see a padlock icon here, which means that you are not logged in. And if you try to interact with the chart, it will direct you to the login and redirect you back to this page after successful login. With that, let's get into the details of the charts.

So the first chart, which is the price yield and the spread chart on top of the page is the two of the newest ad, other than the historical yield video, which we will shortly get into. We have expanded our yield chart coverage in domestic market from single yield to multiple tenure as short as three-month duration to 30-year duration.

If I click on this, you will see that US Treasury is now three months, six months, one year, all the way up to 30 years. We have also included muni investment grade corporate high-yield, BBD, then the CCC, and foreign treasuries, which include the European, South American, Asian, Canadian, and Australian Treasury. So if it keep scrolling down, you would see those instruments down here.

One thing, originally, we see that is these charts are updated real-time. So unlike earlier, which was end of the day prior day, this one is getting real-time update. So this is as of, global six, the estate. The first two charts shows the yield of the selected instrument. And by default, it would be showing you the 10-year and the two-year instrument. And the spread would be showing you the difference between the yield of the first and the two. Actually the difference in the selected two instrument, the spread is measured basically by the percentage point, for example. And as I'm demoing it, if you hover over it, you can see that these mini chart can also be expanded to fill the page and can be seen in a much bigger view.

So I was talking about the spread, the spread would be the difference in the yield of the two selected instrument. In this case, the Treasury 10-year is current as of today at 3.751. And the Treasury two-year is at that 3.756. The spread between the two will show up on the spread chart as the difference between the two-yield was somewhere around negative 005%.

RICHARD CARTER: So, Shamit, I have to say that the fact that this has now reached the zero line is purely coincidental with today's webinar. We didn't plan this ahead of time. But we've been waiting for this moment for a few years in fixed income.

SHAMIT MATHUR: That is true. This tells us on how the yield has moved in the past year, how the spread have been inverse, and now where we are heading to. As the user, you can change the instrument as I was showing you from the dropdown.

So I'll keep the instrument one as 10-year. And if I want to see the spread between the 10-year, I'll scroll down and want to pick up a foreign government bond, say Germany government 10-year. So you can see that the real-time data is updated and the spread between-- the Germany 10-year as showing up here.

The chart is for the predefined period of one year, but it can be as granular as one day and as long as max, which some of them goes back to 20 years. But majority of them we have a good depth of at least 10 years.

So again, as I was saying that these are real-time. That means the underlying data is getting refreshed as you play around with the chart or make any change to the setting, it update the data, which is latest. RICHARD CARTER: So Shamit, let me ask you if I could, just when would people want to think about using the price chart versus a yield chart? How do you see you have both option?

SHAMIT MATHUR: Right. Thanks, Richard, for that question. And the price in the yield-- so the way we have is we can toggle between the price and the yield for the selected instrument. So you're looking at the yield. But say if you want to look at, what were the current price-- the trending price for the US Treasury on the 10-year government or Germany? So you can toggle between the price and the yield. So the chart would change from the percentage yield to the private bar. So if you expand that could see that right up here. It is showing in the price value. However, the spread will still show you between the-- will show you the yield only because the spread is the difference in the yield, as I said earlier. RICHARD CARTER: Right, very interesting.

SHAMIT MATHUR: Yeah. And in some of the cases, you probably would see that there's only a yield available. There is no toggle between the price and the yield. And the reason for that is it happens with some of the corporate in the muni and the short treasury where the data are just quoted in the yield and not in the price. So in those cases, we have only toggle-- we have disabled the toggle to keep it at the yield.

RICHARD CARTER: Right. So for example, what about a three-month bill? Do you have that--

SHAMIT MATHUR: Yeah, look at a three-month bill. And as I was saying, you can see that price and the yield toggle are disabled. It's only defaulting to yield because the Treasury three-month is quoted only in terms of yield and not the price. That's why we are showing it that way.

The expansion of the chart is a good feature to view it in a broader view. It can change the instrument from here as well if you want to see say the corporate three years. And it will show you the-- and as I was saying, that some of them doesn't have the price code and it will default to the yield. So you can change it here.

RICHARD CARTER: Well, this looks really great, Shamit. Yeah, I think this would be a really nice value add. I think we've never shown anything like this before and we're really proud to introduce it. Maybe we could just move on now to a refresh of what we did have before. And I think where we've improved it, but it is maybe some familiar sights to people and some new things as well. SHAMIT MATHUR: Certainly. And the second chart that we are going to look at is the market benchmark, this-- we earlier had a market benchmark as well. The underlying data earlier was provided by Berkeley. But now we are looking at FITSI as a new data provider for what our market benchmarks.

The benchmark pricing are constructed using the yield of the underlying security with maturity from three-month to 30 years. This data, as I mentioned, is provided by FITSI where we track the performance of US dollar denominated investment grade credit regency corporate and muni tax-exempt bond.

Benchmark display the aggregated price and performance of the selected. In this case, there are five. And all five are defaulted for the time period of one year. You can remove the one that you don't want to see. And if you click on the box, you can add them back as well.

In the new one, you have flexibility to select the time frame. There are predefined time frame from three months, six months, one-year, two-year, five-year max, and 10-years to date. And it can also bethe time period can also be chosen from the date selector here.

The construction, in this case one year, shows based on the daily, weekly, and monthly basis. But as you shorten the window, for example, if I take a three-month, it goes from daily and weekly. And from the date selector, if I shorten it further, for example, if I just take it and say, I want to see it from August to September, you can see that much granule level on the basis of 15 minutes, 60 minutes, and the daily.

This way you can see how the price movement has happened in this selected time period at the interval of 15 minutes. As you hover over, you would see the tooltip that tells the price at that point and for all the selected benchmarks.

You don't like to see that the tooltip, you can uncheck, and it won't show you the data element there. Well, so we kept the market benchmark feature for different provider, but some new additional date selections as well.

RICHARD CARTER: Very nice.

SHAMIT MATHUR: Yeah, with that, I'll like to move on to our third chart, the yield curve chart. This also is a replacement of the one that was before similar feature. But as we said earlier, we included an enhanced it to include additional terms like US tips, corporate high yield, and foreign Treasury, which includes some European, South American, Asian, Canadian, and Australian Treasury yields. By default, it would be US Treasury in corporate A selected. And you can select up to five curves in this chart. Now, I'm going to select the Germany and UK. And I can go back and select Japan. So you can see how the yield, which is as of today, which is current day, is trending, but different maturities. If you want to see it, how it was a year, or two-year, three years, five-year, and 10-year, back there are predefined selection. And by clicking on this, the data, the date would change to one year back. And what the yield was trending for different maturity, for the selected curves, it will show up here. You have flexibility to change between the chart and the table. And if you want-- if you click on the table, it will show the same data in the tabular form. So the data will be-- whichever is available will be populated back here.

And if you click on the data, it will show you the week and the month change. So let's say like this. For months, the week change was by 0.035% and month change was 0.039%

RICHARD CARTER: Sorry. Yes, so just to recap then, so were the top set of charts looked at the spread of two instruments against each other? This gives you the chance to see the whole curve spread against another curve, right?

SHAMIT MATHUR: Exactly. You select here two instruments and the spread between the two. This is a comparison of whatever curves you select and how they have performed, for different maturity, how they have performed on that specific date. Yeah.

Now, this view looks at one specific date and comparison as we move to the yield curve video, which is our second new ad. And this view shows you the historical movement of the selected curves. How the curve construction have moved on the selected time frame. That's what it shows.

By default it is, again, US Treasury in corporate A. And we can select up to five. Just like how the yield curve was, we can select up to five to see a comparison. This historical moment, yield curve movements is for 10 years by default. You can select and change the time frame as you wish.

And I'm going to just-- and this is interactive. As I'm saying, this is the video playback. I'm just going to play this. You can see it moves month over month historically. And based on the event that has happened, it would show the yield curve movement for different maturities during that time frame. RICHARD CARTER: You can stop it, can you, at any point, Shamit?

SHAMIT MATHUR: Yeah, you can stop it at any point in time. And you can move it forward. Say, if I want to just bring it to let's say five-year up to April of '23, I can drag it here and April of 2023. OK, seeing how the event has happened and the curves transitioning into the inverse is what the historical view really is. It's a good way to look at on a comparison of multiple different curves.

Now, the yield curve, it says move month by month because it's a very long duration for 10 years. For anything, which is more than five years, it goes month to a month. But for anything, which is one year

to five-year-- say in this case I'll take 2020-- the chart will be re-established and this will move week over week.

So that way you could see how the change in the yield has happened over the weekend. And if you go much shorter, OK, I want to say for the last month in this case--

RICHARD CARTER: Yeah, the last month was pretty dramatic in the bond market. Maybe we could do the last two months or something, Shamit. Just shows the--

SHAMIT MATHUR: Yeah.

RICHARD CARTER: Yeah.

SHAMIT MATHUR: Last two months, if I take it from July to date, you will see how inverse it is and how it has changed because-- by the day how the yield have shaped up in those two months.

RICHARD CARTER: There we go. Falling down in August.

SHAMIT MATHUR: And this is a really powerful new thing that we have added for users to look at. And we have also a toggle between the dark and the light mode. We feel like looking at the darker mode. You can toggle that. One thing to bear in mind that as you toggle between the dark and the light mode or add a curve, the chart is recreated and start from the beginning for that time period. Well, that's the demo of your chart, the price yield of the spread, market benchmark, the yield curve, and the curve video. And with that, Richard. I'll pass it back to you.

RICHARD CARTER: Thank you, Shamit. That was very interesting. And just a reminder for everyone, what we covered today or in terms of navigation Shamit was showing us, one second, remember, news and research, fixed income.

And then when you come to the fixed income page, go to the second tab here, research and markets, and then you'll see the charts Shamit was illustrating. So thank you, Shamit. That was fantastic. Very exciting to see that launched not long ago now. It's just recently gone live. So well done there. So let's move over now to the other aspect of the presentation and go from the broad the market level to the specific. And again, we've tried in this next presentation from Steve to show you a tool we've developed to answer these types of questions that our investors often have, things like having built a portfolio of bonds, how does this look at the aggregate level, understanding that some of our clients have dozens or if not hundreds of different individual bonds?

And from that, what would the income stream look like from this collective bond portfolio? Again, can we visualize that? Can we make adjustments to it? How can we help that activity. And then other analytical type of information like, well, what amount of the portfolio is rated a certain rating level or what percentage is tax exempt?

These types of questions we hope to answer with the new fixed income dashboard. And with that in mind, I'll turn it over to Steve Traugott. Steve, maybe you'd just like to say a few words about yourself and the good work you've been leading here.

STEVE TRAUGOTT: Thanks, Richard. So let me share my screen. OK, so yeah, as Richard mentioned, I work on our fixed income product team. And I was integral in the development of the fixed income dashboard, which we're going to take you through today.

You can get to the dashboard similar to the definitive charts that Shamit shown just by looking at our fixed income bonds and CDs page, clicking on the bond tools tab. And then you can see the fixed income dashboard is the first icon available. So once we click on that, the dashboard will open and bring you directly to your summary page.

So the dashboard is our new way of showing what used to be the fixed income analysis tool. We've added some new functionality, as well as some new screens that we hope help you as a customer get a better idea of your portfolio. Some new analytics that we added and some new cash flow options that can help you. Take a look at the income streams as part of your fixed income portfolio. So the summary page is a good place to start. It's going to give you a broad look at your entire fixed income portfolio that's held here in your Fidelity account. So this page in itself is only going to include your Fidelity positions. And we'll talk a little bit more about some of the other hypothetical positions that you can add on some of the other pages.

At the top here, you'll see the total market value of the portfolio. This includes both your individual bond and CD positions, as well as your bond mutual fund positions if you do have any. Below that, we've added some summary calculations and portfolio averages similar to the fixed income analysis tool that we had before, but we tried to add some additional functionality to these.

We added an average duration for the portfolio in the new dashboard. We had both your average yield to worst and average yield to maturity of the portfolio. We added next 12 months interest to give you a real nice snapshot of the amount of interest you should expect or hypothetical interest over the next 12 months.

And lastly, we have your par value. Now, this number is now going to include standard par value numbers. And then it will also include-- if you have a position say like a Treasury inflation protected security, that has a factor, this will include that factored par amount of the portfolio.

Below that, we have our market value and then we come into our snapshot cards of your portfolio here on the summary page. On the top left, we show your top six next maturing positions in the portfolio, give you a little snapshot of that. So if you're looking to get a quick idea of what's upcoming in the portfolio as far as maturities, you can see that via this card.

On the top right, we have our cash flow, which includes, once again, just a brief snapshot of the cash flow produced by the portfolio. Below that, we can see we have just one of our analytics charts, a breakdown of the portfolio from a product view. So what percentage of your portfolio is in CDs, corporate, treasuries, and so on?

We have a link out to our bond ladder pages. So you have the ability to see those. Below that, we added here a link to our bid request page. So if you own a security and you're looking to sell that security and there's no price or active bid price available on fidelity.com and you had to request a bid, you can come into here.

Get access by clicking the See More button to see the dashboard to get information about bid responses, the price, collection windows, the bid status all available on that dashboard. Lastly, at the

bottom of the page, some brief information similar to the top. But this case, we're looking at your bond mutual fund positions.

So we have a snapshot of some of the positions in the account, some information, also cash flow and analytics links so you can see information on that quickly. So to begin, we're going to look at our positions page.

So we can click right on the See More button. It will bring us directly to that page. Top of the page here we have the averages that are persisted over from the summary page. Initially, the default view will only include your Fidelity account positions.

We're going through our test account here. So you can see we have four different accounts listed here that have fixed income positions. You can access your positions by clicking on the dropdown, see all your individual positions.

Once again, we default to only accounts that have individual bonds or CDs in them. So in this case, the second account here is listed with zero items. So you can always include that. If you'd like you can uncheck the box. When doing so, all the information on the page will update not just the averages up top or portfolio calculations, but the position listing down below, which we'll take a look at in a minute.

If you want to get back to the default and look at all your accounts, just hit the reset button. That will once again load up all your Fidelity accounts. In the previous fixed income analysis tool, we did have the ability to add hypothetical lists, which we have also included in the new dashboard.

Over here on the right, we have the ability to manage those lists in a couple of different ways. If you'd like to take a look at lists that you've already created, just click on the dropdown. You can see all your lists included in the dropdown if you'd like to select one.

You can also create a new hypothetical list by clicking on the link right above there. You have to name your list. And then you can add CUSIPs and quantities to the positions that you want included in that list. And then just click Save at the end. You can add additional rows if you have more positions. Once again, click Save at the end. And then that list will then be included within your dropdown.

For the list that you've already created, if you want to take a look at them and manage them in any way, you can click on the manage hypothetical lists link at the bottom of the dropdown. This will allow you to edit or delete any of the lists you have created already. So you can click on the icon, the trash can icon if you're looking to delete a list and that would remove it.

If you'd want to edit a list, you can always click on the Edit. It will load with the list name and the current positions that are part of that list. You can change the quantities. You can add additional CUSIPs into that list. And you can also delete the list from this page as well.

RICHARD CARTER: Well, Steve, I can just interrupt you. I think for those people who may be familiar with the old fixed income analysis tool, this is a slightly different way of interacting. But hopefully, I think we tried to make it simpler, would you say? A simpler way to go around seeing accounts and then lists.

STEVE TRAUGOTT: Correct, so the idea is to make it easy to be able to differentiate between your positions and lists. So as I mentioned, if you were to click on one of these lists-- let's see if we can find one with good number of positions. So let's say we click this, you can see your market value and all the information that's included up top is now updated. And then those positions would then be included down below in the positions grid as well.

This way rather than having to add positions to an account to see how that might look, you can always have your account here and then add a couple of positions as a list and then look at them together by doing this. And then when you want to go back to your original accounts, just click on the X. Everything updates on the tool and then you're back to just looking at your Fidelity accounts. So as we look at the positions grid, I just want to highlight some of the additional information that we now have available compared to the old fixed income analysis tool. We've added some indicators. So if your position that you have in the account is part of Fidelity's Auto Roll Service, you will see that we've now added this AR indicator next to the description to alert you to the fact that this is a position as part of Auto Roll.

If your position was purchased as part of a ladder, whether that's a bond ladder or one of the model CD ladders, you would see an indicator located in this column over here that just says LDR to, once again, let that position was purchased as part of a ladder.

We added some information about accrued interest and duration in the last column here, which is something we heard from customers that they were interested in. The accrued interest would be based on the assumption that you were-- the amount of interest since the last payment until-- as of the close of last night, since all the pricing we do here is based on the close of last night.

So the third party price, which is similar to what you would see on your positions page or it's available on your search results when you look at the individual position descriptions, we provide that here. And that combined with your quantity that you own gives you the current value that we show in the account here.

If you click on the caret on the left side of the description, we have some additional information available for each of the positions. The information that's available here is product-specific. So for CDs, we have information such as the FDIC insurance number, which is available or the pay frequency or a municipal bond.

We might have information like the state of residence-- the state of issuance and a few other items. If your position is Auto Roll eligible or auto part of the Auto Roll Service, you'll see that we have the indicator that says yes. You also have the ability to hit the cancel Auto Roll by individual position directly from here. If you decide that you don't want to have your position Auto Roll prior to the next reinvestment date.

On the right here-- and this is something once again that we heard a lot from customers we're interested in-- is having easier access to the acquisition information. So this is generally your cost basis information, but it gives you an idea of date when your bond was first acquired or CD quantity. And then the big thing is having this acquisition yield.

So this is the yield based on the price where you originally purchased the bond. So when this position was purchased back in August of last month, actually in August of 24, the yield at the time was a 5.34. So what you can do is then take this-- have this acquisition yield where you purchased it, compare it to the market yield, which is using today's dollar price. And we compared to that and say, OK, where has the position gone? Where have yields moved since I first initially purchased this position? So it gives you a little bit of way to analyze that.

As we switch over to our cash flow, once again, the information and accounts will all persist between the different tabs. You can see we have information down here, graphs. You can look at some of these charts either annually or monthly. You can scroll through the chart by clicking the arrows at the bottom.

And if you hover over the chart, it's going to give you additional information here in the modal for each of the years or months if you're looking at it monthly, how much interest and principal you have each month that is expected.

Below that on the payment schedule, we can see just some information about the next 12 months. Quick snapshot to give you an idea how much principal and interest you should expect. You can see that it's dates. So this is very specific to the time frame based on today's date going out one year. We have two additional charts that we included. So the potential early redemption.

So this is an interesting table that you can take a look at to show you what might happen in your portfolio if you were to have positions called or redeemed prior to their maturity date. Or if a bond is non-callable, what would happen if it's just a maturity date?

So if we're looking at the portfolio here, you can see that based on the first call date of positions in the account, or a first sinking date, or upcoming sink date, pre-refunding date, or the upcoming maturity, almost 55% of the portfolio is expected to mature within 2024. So a high number. So it can give you an idea to plan as far as each of the upcoming years.

The bottom of the page, the last table we have is your upcoming scheduled payments. So this is going to give you a snapshot of the specific payments and dates that you have coming up. So for example, in our account here, we have two different bonds or one bond and one CD that are expecting payments on September 8. I can see the CUSIPs position quantities and specifically the coupon payments that should be expected on those dates.

If you're only interested in seeing coupon payments, we can uncheck principal payments. And then we're only going to see all coupon payments expected for the next account. For this, the accounts in context for the next two years will show you the information here. So that's everything in the flow page.

On the analytics tab, last tab for bonds and CDs, once again, all the information will persist to this tab. We provide a couple new charts here. We also break up the charts by overview, municipal bonds, only and corporate bonds only. Overview will include all the positions in the accounts. In context. Municipal bonds will only be for municipal bonds. And corporate bonds will only be the corporate bonds within those accounts. Many of these charts we had on the previous version of the fixed income analysis tool, we tried to update them, make them look a little bit better. One highlight here is we now have an FDIC concentration chart. This will allow you to see the concentration based on-- if you hover over, you can see the FDIC number for the different banks within your portfolio. This can help you for certain customers to avoid going over your FDIC insurance max limits.

We have the municipal bonds only or corporate bonds only charts. So that's what we have for bond CDs. For bond mutual funds, just to quickly touch on that, all the information is very similar to what we have on the other pages for individual bonds and CDs, some slightly different averages that are a little bit more pertinent to mutual funds.

So once again, next 12 months, hypothetical interest. In this case, we have your average 30-day yield, average NAV, and once again, your average duration. All the information is here available. You can select either your individual accounts or hypotheticals on this page as well. Look at the positions information.

You can buy or sell your positions here with links to the trade tickets. Cash flow is going to be based for the mutual funds. It will be based on your 30-day yield. So just looking at that information and then extrapolating it out for additional years. As with the other chart, you can click on the arrow to see additional months or years.

Below that, we have our charts for an analytics for the mutual funds. Once again, broken up overview and include all your funds, taxable bond funds, just your taxable ones and municipal bond funds, just the municipal bond funds in your portfolio.

So some nice information there that you can look at and have that included when you're checking out your portfolio. So with that, I'll turn it back to you, Richard, to take us through our final look. RICHARD CARTER: Thank you, Steve. That was great. And yes, I have to say sorry to rush you a bit today because we are on a shortened time frame of just 45 minutes. But that was excellent, Steve. And I would say for anyone interested, we're going to get you back for an extended devoted hour to the topic in December. So everyone, if you're interested, please stay tuned for that.

In the meantime, just a quick few words. Location, again, as Steve was showing under bond tools. If you click on that tab from our landing page, you come to the dashboard here. Click on the Dashboard and you'll be launched straight into the summary page, as Steve was showing.

In general, next steps, don't forget our main page here under news and research fixed income. And for today's audience, after this presentation, you'll be receiving an email thanking you for your attendance virtually. But also if you'd like to hear more from us, you could use this capability to just click the link here and someone will reach out to you from our investment staff.

And we'd be happy to talk to you about your fixed income needs, whether it's about these tools specifically or just more generally. And finally, just to say that of course, we've been talking here about individual bonds, particularly. But as Steve mentioned, the dashboard can handle mutual funds.

And as Shamit was showing, I think some of the charting information is applicable to whether you're a bond investor, or you prefer mutual funds, or ETFs. We can offer them all, including separately managed accounts here at Fidelity.

So again, if you are interested to reach out to us, we'd be happy to help you navigate this broad world of fixed income and help you on your investment journey. So with that, thank you very much, again, on behalf of all of us. And I'll turn it back to Jonathan.

JONATHAN: Thank you, Richard. So I want to thank everybody in our great presentation today. Truly some really insights and tools. I'm really glad we're going to do is again in December. And as a reminder, we do have several other great webinars in fixed income and on a variety of topics coming up that you can find at fidelity.com/webinar. We look forward to seeing you, again, on future webinars. And everyone, enjoy your afternoon or late morning. Thank you. [MUSIC PLAYING]

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