TRANSCRIPT

Bond investing beyond yield: A deeper dive

Presenters: Richard Carter & Danielle Fox

RICHARD CARTER: Thank you, and welcome, everybody. We are very pleased to have you here today, and we're going to present our webinar on fixed income, or Beyond Yield, and I'm thrilled to be joined today by my colleague Danielle Fox. My name is Richard Carter, I work as the product manager lead for fixed income individual securities in our Personal Investing Division, which is responsible for largely what you see on the website, Fidelity.com, in the Fixed Income area, bonds and CDs, our offering and the trading experience. And our team works very closely with Danielle and her team on communicating this message out to our colleagues in the field, and also to clients. So, Danielle, why don't you say a few words?

DANIELLE FOX: Great, well, thanks so much, everyone, for making the time today, whether it's morning or afternoon, we appreciate it. As Richard mentioned, my name is Danielle Fox, I'm coming to you from Boston, Massachusetts, where I have the privilege of supporting the 10 local investor centers in Massachusetts, coaching clients on fixed income strategy and demonstrating how our fixed income platform works, and I've been fortunate enough to work at Fidelity for 23 years come next month. So, Richard, I'll turn it back to you and get started.

RICHARD CARTER: Terrific, okay, I'll try and keep up with that. So, let's move on, you know, you've seen the last slide, we're now thinking about the purpose of these webinars. We hope to educate folks and to enlighten you about the bond market as well as the resources we have available at Fidelity to help you day-to-day, week-to-week, you know, in managing your bond portfolio. Next slide, please, Danielle. You know, what we look at here today is trying to answer some of the questions we get from our clients. You know, bond market is fairly complex to many people. It's not a homogenous single market, as we'll hear today, there's many different types of bonds and bond markets within the market itself. We've got complications from the rate cycle, credit risk, all of these actions, actions of politicians, actions of the individual securities themselves, that come to bear on the yield, on the return that you might get, and so what we're trying to do is to give you an update on that today. Very interesting times we're living in. As well as towards the end here, talking about some of the strategies you can deploy hopefully to see you through all kinds of weather, if you like, in terms of the economy. So, specifically for today, we'll start off on the top there with some of the macroeconomic trends. Again, as I said, it's been a very interesting year, year and a half, and you know, we'll just recap that and see what those implications are for the bond market. Then we'll move on to this section, that Danielle will lead us through, which is what we call the three dimensions of bond investing, so I'll leave that as it is, but to think of it, we're going to be trying to sort of thinking about three key areas to look at as you invest in bonds, and again, that'll be a nice all-weather approach to take. Then we'll do a deeper dive into the corporate and muni markets, always of interest. These are two areas in particular where research can do you in good stead, and the differences between each type of bond can be quite marked, so it's worth taking an approach there that does dive deeper than, say, if you were investing in treasury bonds and so on.

And finally, as I said, what we'll look at somewhat are the tools and strategies to equip you to manage your bond portfolio. So, let's start now with these macro trends. We'll start off with some of the key drivers we've seen in the last year, as I said, a quick recap. Then we'll take a look at some of the key variables that we pay attention to, and looking at it since '07, where we saw sort of the peak of the last cycle, and that declined with the Great Financial Crisis, I'm sure many of you remember, and see the parallels between then and now. We'll look specifically at treasury yields and how they're performed, and where we might see them going next, and then study some of the different total return analysis on different markets in reaction to this wave motion of easing and tightening of policy and of monetary positions. So, let's start now. You know, key market drivers, in a summary fashion here, of the last year. So, we're saying here number one, we are now in the process of a global economic rebound, right? Coming out of that recession, that lockdown period. We see here that GDP contracted 3.5% last year, but really that masks how volatile it was. You know, if you recall in Q2 last year, the economy contracted by 31% only to rebound in Q3 last year by an equally staggering 33%. So, amidst all that volatility, some really big numbers actually, you know, we come out this year, things looking fairly positive. I mean, it's all relative of course, right, but I think, you know, the world, as you can see here, 6% GDP growth in Q1, and we think that the year is on track, all being well and not seeing another return to those lockdown conditions, growth has come through. Now, some of that growth has been led by manufacturing. You can see here the statistics in the latest showing purchasing managers index saw very strong, at 61 reading.

And now the service sector [inaudible] has come through as well. Unemployment, another key measure of success, right? Still by historical standards, not too good, 5.8%, there's still work to do, of course. But think about where we were last year, you know, our postwar high, post-World War II high of 14.7% unemployment, we've certainly improved a lot since then. And again, the US leading the way as the world generally is sort of catching up a few months behind. Now, how we managed to do that was largely thanks to the intervention by monetary policy, and more interestingly, perhaps, seeing fiscal policy coming as well, uniquely this time around. So, I think we've seen, everyone's probably familiar with the fed cutting the fed funds rate, and yet is still purchasing over $120 billion target of treasury and mortgage-backed securities each month, so giving the low rate support and the quantitative easing balance sheet support of the federal reserve.

At the same time, we're seeing the fed talk about their willingness to let the economy run hotter than perhaps otherwise they might have been in the past, and seeing the 2% inflation rate now as an average target rather than an upper limit, and at the same time also, particularly with Secretary Yellen's appointment, allowing room and prompting the room for fiscal policy, for spending by government to come in and also add to demand and not just be reliant on monetary policy, which as many of you know, I'm sure, with the rates being so low, is almost running out of room to aid that type of support. So, fiscal policy in the form of either, you know, tax benefits, tax cuts, or more interestingly, perhaps, spending, in infrastructure spending as well as the unemployment spending we've seen in the past year. Now, of course I know inflation has been the key topic of the day, it seems, and this notion of will it be transitory. So, we've seen a lot of impulse to inflation from oil prices now, we've seen a huge swing there, if you remember again about a year ago, oil prices went negative in crude oil for a few weeks, and now they're really strongly in an uptrend, West Texas Intermediate over $70 a barrel. And in other areas, too, we've seen supply chain constraints and even a tightness in the labor market despite the still fairly high unemployment rate. We saw in Q1 that reflected in the treasury market with ten-year yield spiking to 1.75%, but interestingly since then, we've been on a slow decline, and now we're at 1.5%, and thereabouts.

And so, we'll see in the next few months, I think, it'll be very interesting, how this plays out, whether yields will respond to ever-stronger inflation, or will things actually -- is the bond market giving us a hint that the economy might actually be calming down, and in fact, we may see that inflation being transitory after all, so lot of open questions there still, I have to say, but you know, again, it's very interesting to think about how the bond market reflects these economic realities as they emerge. So, next slide, Danielle, thank you. So, if we had to distill it down, you know, there's so many things to keep an eye on, of course, right, and as this data comes out, but some of the key metrics we look at are on this slide, and we take this timeframe here to compare what we've just been through in the last year with where we were after the last recession of '08, '09, and starting at the top, the green line is the unemployment rate, and you can see how what an incredible and unfortunate spike, of course, for those affected, last year was. We really peaked, as I said, about almost 15% unemployment, that's using the left axis. However, you can see it's also improved a lot more sharply than last time around, with the recession of '08, so hopefully we can keep that downward trajectory as people return to jobs. The similar line there to look at is the dark green line, that's the private payrolls. So again, it's incredible to think of the volatility that happened a year ago, where industry was basically shut down overnight, and that is something more severe than we've ever seen, and yet as authorities stepped in with support, we saw, you know, companies rehire very quickly in certain sectors. Other sectors still have hiring to go, but you can see how the payroll number did bounce back pretty rapidly. Again, though, we got to keep an eye on the light-green line. And then, looking at other metrics to see whether the unemployment rate can continue improving and what constraints might be, the dark blue line shows the inflation rate, CPI, see how that has sparked up at a lot higher rate than it was in '09 when we came out of that recession. In fact, the CPI didn't actually recover, you can see, until 2011, and even then, very stable for the rest of the expansion at around that 2% level. So, this'll be interesting, we've now, you know, kind of broken some new ground here with the 5% sprint we saw last month. And finally, the two-year treasury yield, that is also very sensitive to these inflation metrics. So -- thank you, Danielle, sorry. So, the next slide, if you will. So now as we look to the bond market, remember that there's not just one rate number to look at. There's multiple rates. And so we see here the key ones to familiarize yourself with, the light blue being the fed funds rate, that's the rate that the federal reserve guides us to, the light green being that two-year treasury again, and the 10-year yield being the long-term 10-year yield, and I think the key takeaway here is through the last four recessions and rate hiking cycles, we see how there's been this long-term trend with the longer-term yields, downward trend, and yet the shorter-term interest rates have oscillated, being cut during the recessionary times, and slowly picking back up again in yield terms when the recovery takes hold. So, what's very interesting right now is if you look to the far right of the chart is that we did see this spike up in the longer-term market rates, but notice how it's still within the trend line down. At the same time, we've really not yet seen a meaningful response in the two-year treasuries, so, you know, look for the market there I think to respond to whether it believes inflation is more enduring, and whether it believes that the recovery is also more enduring. Next slide, Danielle, please. And so finally, as I want to just wrap up this little section here, you know, a lot of data on this slide, so forgive us, but we wanted to compare how different asset classes have done, particularly with bonds in mind, in quantity easing cycles and fed rate hike cycles. So, of course, where we are now is in the left-hand side of the page still in the easing cycle of QE4. We've so nicknamed it that just for ease of comparison, but it's that far-right column on the left, and you can see the fed actually started cutting rates and easing economic conditions even before COVID. We've marked that to remember the fed cut rates first actually in the fall of '19. So, we had quite a long period now that the fed had been easy with their rates and the conditions, and you can see how treasury bonds have responded fairly comfortably. But notice to the right how even in hiking cycles, the treasury bonds have actually done fairly well, and Danielle will expand on that in a few minutes, but what we see there sometimes in easing cycles is the flight to safety, and people can move to treasuries. At the same time, in hiking cycles, too, you know, it's often sometimes the case that the treasury market moves in anticipation of the fed moving to tighten and actually push yields out as much as they can, and in fact what might happen sometimes is longer rates might actually decline as the fed increases short-term rates, so in fact, historical precedent here, the future might be different, but we've seen an ability to have a reasonable, although somewhat modest returns from treasuries, throughout these last decade plus. Looking down to some of the more eye-popping numbers you can see here, large cap stocks, here we've seen an amazing performance there, of course, both in easing cycles, that's more natural, but again, even in the hiking cycles. And then finally, looking at high-yield bonds, and Danielle will cover this a bit more, too, that we see some of the more risky areas of the bond market naturally performing well on the left when the federal reserve have been easing, struggling a little bit more in the hiking cycle, but again, still having the potential to, you know, be an area of stability, and even with hikes, can still produce return through their high returns. So, a mixed picture, I think, and don't make it so black and white, I think is the message from this slide. So, I'll send it out to Danielle to take us through this next session on the three dimensions of bond investing.

DANIELLE FOX: Great, thanks so much, Richard. And just as we take a look at the three dimensions we'll be covering, we'll first talk a little bit about the yield curve and what that means, and what the market might be trying to tell us. All bonds are not created equal, so we'll talk about the risk-return tradeoff, and then within a type of bonds, how there's no free lunch, and that yields can range around a benchmark. So, let's dive into it. So, there's three types of yield curds -- curves, excuse me, commonly experienced, there's an upward sloping, a flat, and an inverted yield curve. So, right now, we're looking at 2010, where we have a steep or upward sloping yield curve, and I think this is what most investors would expect to see when looking at the rate environment, and this tends to happen during a recession, or at the beginning of an expansion where the fed is done cutting rates, sound familiar? And we may actually start to see long-term rates rise while those short-term rates remain entrenched in place. One thing before I move to the next slide that's important to kind of think about and building upon some of the things Richard talked about is, you know, the fed's influence on interest rates is most commonly felt on shorter maturities, most notably two years and in. So right now we're seeing a scenario where things are a bit entrenched on the front end, and the longer-term part of the yield curve can start to move around a little bit. Another type of yield curve which has historically been a very good predictor of a domestic recession is an inverted yield curve where long-term interest rates are actually lower than short-term interest rates, and as you can see from the slide, this tends to happen at the end of a rate cycle, or an economic cycle, and the fed is done hiking rates, so again, something that tends to be a predictor of a recession. And then finally, we have a flat yield curve, where everything looks like a sidewalk, right? Like, you don't really feel like you're being rewarded for the element of time, where short-term and long-term interest rates look almost exactly the same. And this tends to be at the end of a cycle, where the fed's still raising rates, growth is strong, but maybe you're getting towards the, you know, the back half of that -- or the latter stages of that economic cycle. So, there's three types of yield curves, steep, inverted, and flat, and it's the bond market trying to tell you a little bit about where you are in the economic cycle. And this is data that you can pull from our website, there are some great resources available to that. As I think about the second dimension, moving away from discussing the yield curve, this is actually one of my favorite slides in the presentation, because if you think about diversification, not all bonds are created equal. Another truth that I think a lot of us, as fixed income professionals realize, is that the lower in credit quality you go, the more bonds tend to act like stocks. So as you look at the left-hand side and you see high-yield corporates, which is what HY stands for, or emerging markets, which is almost like foreign junk bonds, you'll see that some of those return attributes look somewhat similar to that which was experienced in the equity markets, if you look at the dark green with 2008, and then kind of that big recovery in 2009, and as you move further over to the right, you're looking at investment-grade corporates, which is what IG stands for, inflation protected bonds, mortgages, and US treasuries. So, one thing to kind of think about from a diversification perspective is that if you're intending to offset the risk of the equity market, in terms of your long term asset allocation, quality might be king here, right? You're not only -- it's not only about limiting potentially upside, but more importantly, it's about limiting downside and having a narrow band of returns, and you can see that as you move from left to right, and the quality profile of things changes, that the risk-return tradeoff is a reflection of that as well. So, one key takeaway from this slide, not all bonds are created equal, potentially chasing yield to diversify your portfolio may not -- you solve one item, but you may introduce other consequences that may be unintended. So, as we think about moving from the broad swath of bonds, right, different types of bonds, within the bond market, within each of those categories, there's also going to be a dispersion of returns with a category, the corporate bond market, the muni market, etc., etc., and it's one way to kind of think about it is, you know, the bond market may not always be a wonderful predictor of where interest rates are going, but the bond market does tend to be a relatively good predictor of default risk or credit risk. So, you know, if I'm looking at, for example, a bond going out three years at 1.88% in the BBB space, that is notably higher than some of the other yields for that same time horizon. It's the bond market saying, you know, kind of like what Regan used to say, "Trust but verify," it's trying to quantify the validity of those ratings, or maybe trying to price in a future rating change. So, if we were to look at one of those segments in greater detail, this is a dive into AA rated corporates going out to 2026, so five years out. And what you'll notice is from top to bottom, there's a yield differential of about a third of a percent, 4/10ths of a percent. If we were to go down the credit spectrum, not look at a AA, but let's say BBB, like that 1.88% I think we saw on the previous screen, that differential might be even wider. So, this is the bond market trying to say, all right, if I'm thinking about default risk within any rating category, someone -- a trading desk is on the hook, right, for the Proctor and Gamble, or Apple's creditworthiness, until someone like you or I buys that bond from them. So, there's an inherent evaluation of credit risk, and that's why sorting by yield isn't always the most productive way to find bonds, because there is no free lunch, even within one of these categories. So, I know that was a really quick explanation about those three dimensions that we talked about, especially thinking about the different classes of bonds, but now we want to go into a deeper diver into both the corporate and municipal bond space, so I'm going to toss it back to Richard to talk a little bit more about the corporate bond space.

RICHARD CARTER: Great, thank you Danielle, and yeah, I think you set that up nicely, just that previous slide, right, looking at those different yields for the same level of credit quality in the corporate market, and so we're going to do a little bit of a deeper dive into that, saying, you know, how do you begin to sort them out, right, and as you said, there's no free lunch, so don't just look at yield. Of course we all want to get that yield, but in order to realize that yield, you have to be aware of the risks as well, and of course, the yield is the calculation of total return over the holding period until the bond matures, so it has to sort of survive that length of time. So, we'll look at that and we'll look at also the idea of pricing risk and how the bond market does that, and how we have various tools to help you see that as best we can. Again, we can't predict the future, unfortunately, but hopefully we can make an educated decision. So, next slide, Danielle, thank you. So, before we dive in, let's just take a little look at, I'm going to talk about the corporate market, and Danielle will follow up with municipals. So, in the corporate market, at an aggregate level now, sort of dimension two, if you like, it's interesting to see how yields wax and wane over time. What we see here, these two charts, they look very similar superficially, but they are in different slices of the corporate market. On the left, investment-grade, on the right, high yield or junk bonds. And so, although they have similar profiles over time, the Y-axis, the left axis, OAS, option adjusted spread, it's really the spread or the rate above the treasury market, right, that's what this is saying. So, for example, let's take the peak of the spike in the green on the left, say something like 6.5% above treasury rates, right? So, when that peak happens, and this is the worst of the recession of '08 period, '09, treasury rates mighty have been, say, 3%. You add the 6.5% to that, and you can see how corporate bonds at that time were, you know, knocking on the door of 10% for investment-grade. What that translates to, of course, in bond world ownership is the price falls, right? So these charts are the inverse, if you like, these are yields, so the inverse of those is price to climb. So you can see moments of extreme pressure, fear, and so forth, these spike up in yields because everyone is -- a lot of people are selling at that time, and liquidity is hard to come by. Over in the high-yield area to the right, look how again at the worst part of the financial crisis spreads, does 20% in high yield, so there was a lot of fear, a lot of wreckage there, prices plummeted and so on. And then what you find is the economy recovers, these yields come down, the spread tightens, as we say, and prices recover. Now, what is interesting, just looking in the most immediate histories, how what we saw in last year was the most violent self, right, the most violent spike up in yield spreads, and yet the very rapid reaction for the Federal Reserve to both cut interest rates, but also provide liquidity facilities to the bond market really had an impact, and you can see how these spreads have come down, and then as the economy has recovered, you can see now how quote, unquote "tight" these spreads are. The levels where we are today with the yield spreads are commensurate with the equally tightly observed spreads of '05 and six and seven. So we really are now in this sort of later part, it seems. So if you look at this, you know, the later part of the credit cycle where it could last for a while longer, but you know, many people are benefitting from the investments they made a year ago, but then people now looking on a landscape where you have to search hard for that extra yield and not take undue risks. Next slide, Danielle, please. Thank you. So, how could you go about that? Well, here's an example of a bond that we're just suggesting, you know, to look deeper in. We call this our bond details page. You can see lots of data here, finding out when the bond will mature, when its coupon is, and particularly here, we're zooming in on the credit quality, so Moody's rating, S&P ratings, you can find that information here. Notice how at the BBB level, this is the lower part of the investment grade. Still investment grade, but cautionary note here is where, again, we may find some of the higher yields in investment grade, but be aware that what's the risk of downgrade, and if it was to be downgraded, then the risk of this type of bond could be classified as a junk bond, and that would, from an institutional point of view, lead to a whole different set of buyers, and might lead to quite a dramatic price change downwards for at least a brief while. I wanted to point out here issuer events, if you click that "yes," you get this popup, and the popup is useful because it can tell you a little bit more about what's going on with these credit ratings. It can tell you that, you know, is this trajectory of ratings going in the right direction, i.e. improving, or is it heading slowly, slowly down? And so that might be an interesting time dimension to add to your evaluation. Furthermore, you see the very first one, "Remove from negative credit watch." This is a great little secret of the bond market, I'd say, that is often unpublicized, certainly in the newspaper. There's no room, I feel like, to mention this, but typically the rating agencies, before they make a downgrade move, they come out with a watch notification on bonds, so if a bond is placed on negative watch, it usually means that they're studying it further, and very likely, it doesn't say it necessarily will happen, but it very likely could be a downgrade in its near future. So here in this case, S&P downgraded the bond to BBB+, you can see in the second row, but at the same time, they removed it from negative watch, so meaning for now, that rating is stable. So the chance to get, you know, either more or the latest information from just the credit rating alone. Thanks Danielle, next slide, if you would. In addition to the fundamental data like that, if you want to call it, rating and the coupon and the maturity date, over on the second tab, the price and performance tab, a lot of good information about price. You can see here the bid and the ask, you know, what are the prices that we can get for you in the bond market today, and a note to that over on the right, the depth to book information. See that first block, top right? That is an insight for this particular bond, again, we just picked one at random, this Amerisource bond, that you can see over to the left there under bids, about a dozen different dealers willing to bid this bond and all the prices that they are able to access, and over to the right, three dealers are offering this bond at different price points. We highlight at the top row the best price for you to buy it, the best price for you to sell at, everything is ranked accordingly, is stacked accordingly, but we at Fidelity are very interested in casting a wide net and bringing these different price points as we can source them available to you, and hopefully that increases the competition amongst those dealers for you to get the best price available. Over back to the left, the third-party price that's in the middle of the far left screenshot, 107.847, it looks like, or 647, that is a good metric. That's the nightly evaluation price, and it's the price that you may see on your statements once a month as well, and so that's a nice way to measure - this is done by a third-party, hence the name "Third party price," so that we're not making this price decision, the third-party evaluator is, and so when you look at the price that you're being asked to pay if you wanted to buy the bond versus the third-party price, which is done nightly. It's a nice way to say, "Look, is this price that I'm seeing in the live market, is it in line with this institutionally-known price to be the evaluated price? So, [inaudible] there's a lot more, too, but just for now, I'll leave it there, and I'll pass it back to you, Danielle, to say what kind of deep diving can we do in the muni area.

DANIELLE FOX: Sure. Thanks, that was a very good description of things, and I always think about those credit watches, and looking at the material events to say, "Is the trend my friend," as it relates to credit quality, so it's great information that's available. And you'll see some consistency as we start talking about the municipal landscape as well, and before I touch on this slide, the reason I bring that up and I think it's important is it's a great way to reinforce the idea of having a repeatable process if you're investing in some of these different asset classes, knowing that some of the resources are going to be similar. But switching gears a little bit to the municipal market, there's a lot going on here, but in essence, this slide is looking at how do municipal bond yields, which are tax exempt, compare to a benchmark, a treasury, and looking at it on a percentage basis, and there's been plenty of headlines over the last couple decades that have influenced how municipal bond yields look. I would say things to kind of keep an eye on going forward would be any heightened risk of increased personal tax rates when taxes are at risk of rising. That is something that can have a negative influence on municipal yields, or keep them from going up as much if we're in a rising rate environment, and then secondly, and Richard touched on this in the opening comments, what does infrastructure look like if passed, and how is it financed, right? So, two things that can really affect the supply and demand side, and all of these headlines in some way, shape, or form had an impact on either supply or demand, so it's just an interesting way to look at municipal bonds is thinking about it, right, yields are high or low compared to something, what's your "something?" And in this case, we'd look at the treasury. So, let's take a quick peek, you know, we talked a little bit about that third dimension, right? There's a range of returns within a specific category of bonds and a specific time horizon. So, here, we're looking at just under ten years out, state of Connecticut municipal bond yields, and you'll notice, right, each bond has a different structure from a coupon call feature perspective, which can create some yield differentials, but as you can see, there is a wide disparity of yields given the credit quality and also the structure of a bond, and when I say "structure," think of it as three things, coupon, call date, and maturity are the big contributors to structure. So again, no free lunch, there can be a wide dispersion of returns, so that research piece that Richard alluded to on the corporate side also holds true on the municipal side. So, one thing that's a little bit different, and you saw it on the slide, you know, there's the ability to leverage our equity research page for corporate bonds that might have a publicly traded equity. That doesn't necessarily exist, obviously, or it doesn't exist on the municipal side, but you have access to documents through EMMA, which is a repository of information, but what's interesting about this bond, using this Shreveport, so switching from Connecticut to Louisiana as an example here, is ratings can start to look a little more complicated, and this bond happens to be insured by Build America Mutual. So, one of the nice things that Fidelity does is when you look at the ratings of a bond, if a bond is insured, it will often have two ratings, that of the standalone issuer, which is your underlying rating, in this case, BAA1 or BBB+, and then in headline rating or like an overall rating of BAA1 or in the case of S&P, because the bond insurer's rated by S&P, AA. So the AA rating in this case reflects the enhanced rating of Build America Mutual, which is the insurance company. So, one thing to kind of think about as someone who invests in municipal bonds, in a past life sold them to individual investors, you know, if you're buying bonds solely for the sake of the insurance, that this is insurance you don't want to use. (laughs) So, really focusing on those underlying ratings and having the visibility to it is really important, and you'll see that there are material events available that is the trend your friend around the credit ratings and financials being filed, and the credit ratings could be at both the insurer level and then underlying issuer level. So, just note that material events are anything that affect a specific CUSIP, but again, you'll see a lot around financials being filed in the municipal market, but you can also see rating changes and outlook changes related to the bond issuer and at the insurer level as well, so it can get a little more complicated, and we try to make that as transparent as possible. But material events and checking those in the muni market, extremely important. So, there's a little bit around pricing that we want to go over, and some different ways to think about pricing. So, Richard, let me toss it back to you to go over the next couple slides.

RICHARD CARTER: Yes, thanks Danielle. As you say you showed some insights there as the volatility of muni bonds historically on price, and yeah, I wanted to make our audience aware of a fairly new addition we added, both applicable for muni bonds as well as corporate bonds, shown here, which is the charting facility, now available for those two bonds types, showing a year's worth at maximum, or you can zoom in on a more shorter-term scale, the track record of price or yield, you can flip the chart to show yield as well, for customer buying, customer selling, or dealer to dealer prices, so if you look at the top right there of this chart, you can see these different ways you could click the boxes. You know, very interesting case, again, just to look at where we've come this last year, this is just, took a good quality corporate bond, Toyota, notice how rapidly prices fell. They fell from 105 to 95, right? So although it was a sudden dip and another dip expected for this type of bond, notice how, again, compared to some of the other volatility we saw in the equity market at the time, how more stable the bond reaction was, and again, rebound, and how stable that pricing is, or has been, since last spring through now. So, these charts, using these charts I think can be very helpful. Again, the future can be different, of course, but it can give you a good sense of how bonds, how a particular bond, just taking this one at random, can behave given all we've been through in the last year. Yes, it saw volatility, but how rapidly it was restored, and how good-quality bonds, you know, there's a solid demand profile you can see in this slide, and then again, you could use it at a more shorter time horizon, this chart, to see, again, compare your price that you're looking at now if you're thinking of buying it, versus where the bond has traded recently. And by the way, one final point, these prices on the chart are for all the market, they're not just for Fidelity's customers or trades, they're for the US market to trading as a whole. So, thanks, and then the other aspect on price, we wanted just to dwell on for a quick second was the price that you pay as an investor. You know, our transaction costs, a dollar per bond, we're very proud of that and we feel they're very competitive, and they are also very simple to think about, right, and remember. We've done some studies, it's a little bit of an opaque market still in some areas, and as you can see from this chart, which, by the way, is on our website, it's a third-party study we conducted with an independent third-party doing the number crunching, but basically looking at some of our nearest and dearest competitors, and trying to understand the price differential between the same bond offered at the same time on the Fidelity platform versus these other competitors, and I think you would agree that these differentials are quite significant, so for example, anywhere from $10 to $20 versus the Fidelity $1 per bond, so again, one bond being $1,000 face value, if you're buying 10 bonds, $10,000 or even say larger amounts, $50,000, very quickly, the differential is getting into the hundreds of dollars. We think that's important not just, obviously, for you saving money on a transaction basis, but also when you translate these numbers back into the yield, what is the yield you're walking away with can help, right, versus it being eroded through the transactional friction.

So, yeah, I just -- get off the soapbox there, but just wanted to make that point that not a factor when you're thinking of yield. Buying the bond at the best price through multiple sourcing or multiple dealers that we offer on Fidelity Plus, then keeping transaction costs low. One other quick slide here, again, as you do your research into the third dimension, is our Fidelity Viewpoints. We see here on the left, this viewpoints was particularly studying the bond charges that I just referred to. So, we have a number of articles, we just came up one recently on inflation that's very interesting, it's on our website right now in the front page carousel. And then over to the right, we are also mindful that we're not the only voice in the study of this very interesting and complex market. So, we have regular research available on monthly research from PIMCO, also Black Rock, and we're in the process of adding more from Moody's, so people can read at their leisure, you know, current thinking from some of the best investors and observers in the space. So, with that, you know, we now want to move to the final section, which is how you translate all this into strategies, so Danielle, I'll leave it to you if you would take it away into the evergreen approach, if you like, to managing your bond portfolio.

DANIELLE FOX: Of course, and I'll add one final information provider to the mix, which is capital economics, if you're looking at --

RICHARD CARTER: Oh, thank you.

DANIELLE FOX: -- getting a macro view, yeah, I know when we were preparing for this, I shared that. It's one that I read pretty much every day, two-, three-page, great way to get a sense of the overall market as opposed to a specific sub-asset class, something of that nature, so just wanted to toss that out there. So, once you've done all that reading, how do you put it into action, right? So, let's talk a little bit about some of the strategies, whether it's thinking about cashflow, saving for college and diversification, there's a lot of tools and strategies that are available to you. And I would also say, within our learning center, whether it's looking at -- we'll occasionally have some video content on how to use some of these tools in greater detail, so self-paced learning, there's some good articles as well, so just know that this is an introduction, and definitely not an all-inclusive description. But, two tools that I think are really important to consider as part of your building and maintenance process, right, so soup to nuts, right? Build a ladder, maintain a ladder, how do I do it efficiently and responsibly? And as you'll see in the center of the slide here, we've got a bond ladder tool, and then we also have a fixed income analysis tool. Bond ladder tool helps with the creation. Analysis tool is saying, "All right, I built my ladder, now what?" So that's kind of the way to think about how you might integrate those tools into your process, and so from a financial perspective, fixed income can be used in a variety of different ways, and you'll see those listed on the left, and we'll get into those a little more in a moment here, but it could be saving for college, trying to mitigate the risk of the equity market, planning for retirement and creating cashflow for you, so lots of different ways that you could try to integrate fixed income into your long-term asset allocation, so let's dive into them in a little more detail here. So, when we think about a bond ladder, just as a quick [trimmer?], right, as you see on the right-hand side in the dark blue, and even on the left-hand side in dark blue, it's about staggering your maturities, having things come due periodically. And one other way to think about it is each of those barbells or, you know, pieces of the graph are opportunities to dollar-cost average back into your strategy. So, it's a way to almost do dollar cost averaging in reverse. And when you're doing this, you're setting up timely and known principal and interest payments, and as you perhaps transition in retirement, you know, the idea of predictability and knowing what you're getting and when you're getting it can be very helpful, and that's something that a bond ladder can contribute towards, that feeling. So, this is an illustration of some of the search results on the righthand side, and how you can project out really to the penny what you would expect and when you would expect to get it. So, how can I potentially apply this? Well, let's say I'm getting ready to send a child to college in 2029, and I want to set aside some money so that that check is not as hard to write. This is a way to go about doing that, right? I can, if I know my kid ideally is going to college in 2029, hopefully they're only on the four-year plan, right, then I can go ahead and set aside dollars for what I perceive to be a good chunk or maybe the entirety of that college tuition, and I don't need anything else coming in earlier than that. So, this is a very specific use case, to match the maturity with those years of matriculating at school. Another option could be, I'm worried about interest rates going up, all this talk of inflation, right, I want to go short and stack my maturities in the front end, because I'm looking at not only rates going up, but I'm thinking maybe they're going to go up quickly and in a short period of time, and if you think about that speed and magnitude of change, if you expect both of them to be, you know, on the larger side in scale, I could choose to move my maturities to the left and have them come due sooner so that dollar cost averaging opportunity that I talked about gets manifested sooner rather than later. So, that's another tactic one could take in order to build a ladder to reflect the challenge that you're trying to solve for. From a risk mitigation perspective, if I'm trying to diversify across my portfolio so that I'm not completely tied to the performance and volatility of the equity market, I can choose to integrate different types of fixed income, those different sub-asset classes. And if you think back to my favorite slide earlier in the presentation, I talked about quality being king. So if you think about it, right, the higher the credit quality, the less it's going to act like stocks.

So, it's not necessarily -- one of the core beliefs that I have is you buy bonds to stay wealthy, not get wealthy. So as you think about risk mitigation, that's a good mantra to repeat to yourself so that you're not necessarily going out and chasing yield, but focusing on quality so that you're mitigating the risk of having things at all acts like the equity market all at once. Using the analysis tool once you've built a ladder, right, and now you're in the "now what" stage, this really helps facilitate responsible bond ownership. That along with, and this is something you can get in the Learning Center, utilizing our alerts to be notified of changes in credit quality, maturities, things of that nature, but this is a way for me to get a sense of, "All right, is my credit quality drifting lower? Am I overconcentrated in certain sectors?" I know in the corporate market, it's very easy to all of a sudden own a bunch of banks and financials, so this is a way to get that laser focus into that -- you have that visibility into the sub-asset classes, and that can all be accessed through our Fixed Income Analysis Tool, which does a wonderful job of teeing those things up in terms of getting visibility and having some laser focus on your sub-asset classes. So, that was a high-level overview of some of the different strategies and how to use them, and then how to maintain those strategies. Let me send it back to Richard to kind of wrap things up and get to our favorite slide, which are the disclosures.

RICHARD CARTER: Exactly. (laughs) Thanks, Danielle, yeah, very nice job, and there's a lot there. So, we'll just motor on down here to the final straight. So, to say that, yes, we've covered here a little bit about the macro. We're happy to talk more about that or our three-dimensional approach to framing how you might take those steps, and finding the bond market actually more approachable to invest in than you might otherwise have thought. We talked a little bit about corporate muni bond investing in depth, because those are two areas where the similar kind of approach you might take to investing in equities could apply here, looking at individual names and credit risk. And then as Danielle wrapped us up there with the key tools of the bond ladder and the Fixed Income Analysis Tool, ways you can build a bond portfolio, manage a bond portfolio in confidence for the long run, and take account of both your long-term goals as well as some of those market vicissitudes we've just discussed, too.

So in terms of next steps, you know, Fidelity.com, News and Research Fixed Income is our landing area. There's a particular few links here, again, in your presentation, you can click them and go directly to the tools area, the research area. We also have additional seminars in this series that Danielle and her colleagues often promote as webinars now in the age of virtual life that we're in for now, at least. So, many of these can be accessed through your local financial consultant, ask when there's maybe something coming up in your area that would be of interest. And then further afield, we have more ongoing help available through our Fixed Income Specialists. We should just mention, if you weren't aware of this resource, this fantastic resource available with a special number there you can see, 800, at the bottom of the screen, team of about 80 colleagues across the country available 8 a.m. to 8 p.m. Eastern time, Monday through Friday, and they really like the topic of Fixed Income, they work with many clients on just fixed income, so I think you'll find and be impressed by their level of capability and depth, both in helping you think through some of your own decisions and so forth, but also using the website, helping you understand what to click, where to find things, they'd be more than happy to help you through all of that. And as we wrap towards the end here, yeah, we hope this has helped you, and you know, making your own decisions and using us as sounding boards, or helping us directly help you. We hope that it's come together at Fidelity, you know, it's not just the website, it's personnel and the research that's available to look at at any time from multiple sources, all coming together to give you a great experience, and you can see here, both the planning side of it, trading side of it, our pricing competitiveness, you name it, and obviously, we're always vigilant about security and protection. As Danielle said, this is wanting you to stay wealthy through our product, and here's our disclosures. So, thank you very much for your time today on behalf of Danielle and myself. We really appreciate your staying with us.

END OF AUDIO FILE

Investing involves risk, including risk of loss.

In general, the bond market is volatile, and fixed income securities carry interest rate risk. (As interest rates rise, bond prices usually fall, and vice versa. This effect is usually more pronounced for longer-term securities). Fixed income securities also carry inflation risk, liquidity risk, call risk and credit and default risks for both issuers and counterparties. Any fixed-income security sold or redeemed prior to maturity may be subject to loss.

Interest income earned from tax-exempt municipal securities generally is exempt from federal income tax, and may also be exempt from state and local income taxes if the investor is a resident in the state of issuance. A portion of the income received may be subject to federal and state income taxes, including the federal alternative minimum tax. In addition, investors may be subject to tax on amounts recognized in connection with the sale of municipal bonds, including capital gains and “market discount” taxed at ordinary income rates. “Market discount” arises when a bond is purchased on the secondary market for a price that is less than its stated redemption price by more than a statutory amount. Before making any investment, investors should review the official statement for the relevant offering for additional tax and other considerations.

The tax information contained herein is general in nature, is provided for informational purposes only, and should not be construed as legal or tax advice. Fidelity does not provide legal or tax advice. Fidelity cannot guarantee that such information is accurate, complete, or timely. Laws of a particular state or laws that may be applicable to a particular situation may have an impact on the applicability, accuracy, or completeness of such information. Always consult an attorney or tax professional regarding your specific legal or tax situation.

References to specific securities are for illustrative purposes only and should not be construed as recommendations or investment advice.

A bond ladder, depending on the types and amount of securities within it, may not ensure adequate diversification of your investment portfolio. While diversification does not ensure a profit or guarantee against loss, a lack of diversification may result in heightened volatility of your portfolio value. You must perform your own evaluation as to whether a bond ladder and the securities held within it are consistent with your investment objectives, risk tolerance, and financial circumstances. To learn more about diversification and its effects on your portfolio, contact a representative.

Diversification does not ensure a profit or guarantee against loss.

1. (from page 24) Fidelity commissioned Corporate Insight to study bond pricing, available online, for self-directed retail investors from three brokers that offer corporate and municipal bonds for comparison to Fidelity's standard online pricing.

The study compared online bond prices for more than 27,000 municipal and corporate inventory matches from January 28 through March 2, 2020. It compared municipal and corporate inventories offered online in varying quantities. The study found that, on average, the three online bond brokers identified in the chart were asking $15.41 more per bond. Corporate Insight determined the average price differential by calculating the difference between the prices of matching corporate and municipal bond inventory at Fidelity, including Fidelity's $1 per bond mark-up for online trades vs. the prices offered online for the same bonds from the three brokers in the table, then averaging the differences of the financial services firms. An order size of 22 bonds was selected to illustrate the hypothetical trade because this is the average for Fidelity's retail brokerage account holders who purchased individual municipal or corporate bonds during 2019. The analysis included investment grade corporate and municipal bonds only, as the three brokers in the study do not offer non-investment grade bonds for purchase online.

Minimum markup or markdown of $19.95 applies if traded with a Fidelity representative. For U.S. Treasury purchases traded with a Fidelity representative, a flat charge of $19.95 per trade applies. A $250 maximum applies to all trades, reduced to a $50 maximum for bonds maturing in one year or less. Rates are for U.S. dollar-denominated bonds; additional fees and minimums apply for non-dollar bond trades. Other conditions may apply; see Fidelity.com/commissions for details. Please note that markups and markdowns may affect the total cost of the transaction and the total, or "effective," yield of your investment. The offering broker, which may be our affiliate, National Financial

Services LLC, may separately mark up or mark down the price of the security and may realize a trading profit or loss on the transaction.

Past performance is no guarantee of future results.

All indexes are unmanaged, and performance of the indexes includes reinvestment of dividends and interest income, unless otherwise noted. Indexes are not illustrative of any particular investment, and it is not possible to invest directly in an index.

Bloomberg Barclays U.S. High Yield Index is a market value–weighted index that covers the universe of dollar-denominated, fixed-rate, non-investment grade debt.

Bloomberg Barclays Emerging Market Bond Index is an unmanaged index that tracks total returns for external-currency-denominated debt instruments of the emerging markets.

Bloomberg Barclays U.S. Corporate Investment Grade Index is a market value–weighted index of investment-grade corporate fixed-rate debt issues with maturities of one year or more.

Bloomberg Barclays U.S. TIPS Index is an unmanaged index that consists of inflation-protected securities issued by the U.S. Treasury.

Bloomberg Barclays Municipal Bond Index is an unmanaged index that includes investment-grade, tax-exempt, and fixed-rate bonds with maturities greater than two years selected from issues larger than $75 million.

The Bloomberg Barclays U.S. Mortgage Backed Securities (MBS) Index tracks agency mortgage backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The index is constructed by grouping individual TBA-deliverable MBS pools into aggregates or generics based on program, coupon and vintage. Introduced in 1985, the GNMA, FHLMC and FNMA fixed-rate indices for 30- and 15-year securities were backdated to January 1976, May 1977, and November 1982, respectively. In April 2007, agency hybrid adjustable-rate mortgage (ARM) pass-through securities were added to the index.

Bloomberg Barclays U.S. Aggregate Index is an unmanaged index that tracks domestic investment-grade bonds, including corporate, government, and mortgage-backed securities.

Bloomberg Barclays U.S. Treasury Index is a market value–weighted index of public obligations of the U.S. Treasury with maturities of one year or more.

The Bloomberg Barclays Municipal Bond Index is an unmanaged market value–weighted index of investment-grade municipal bonds with maturities of
one year or more.

BofA Merrill Lynch US High Yield Master II Index tracks the performance of US dollar denominated below investment grade rated corporate debt publicly issued in the US domestic market. Each security must have greater than 1 year of remaining maturity, a fixed coupon schedule, and a minimum amount outstanding of $100 million.

The S&P 500® is an unmanaged market value–weighted index including 500 leading companies and captures approximately 80% coverage of available market capitalization.

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