

TRANSCRIPT

Bond investing beyond yield -- A deeper dive

Luke Vance: Hi everyone. My name is Luke Vance. I'm the fixed income regional brokerage consultant for Southern California here. Today we have a presentation that's called Bond Investing Beyond Yield--A Deeper Dive. So the reasons for this content and the title of the presentation that we're delivering is really just to invite our clients that are fixed income investors into a more subtle and nuanced conversation around their fixed income investment strategies. So you kind that most novice investors really just look through the dimension of how we capture the highest yield. And so we just want to start to look with some more complexity around what are the figures that actually drive that yield and is that going to impact our strategy.

So when we get started here I just want to make a quick caveat that a lot of the numbers that you see reported here are actually just for illustrative purposes. We captured them towards the end of the year in 2019. So a lot of the charts and figures that you see here are not going to reflect the recent volatility. But we still think really important and impactful information -- and I think now more than ever is that it's a great time to have a tool belt with a lot of resources that you can use to manage risk. So hopefully we're going to cover that today.

So with that, we'll get started. Again, the purpose of the presentation here is just to provide a more sophisticated understanding of the bond landscape. So we're going to be talking both big picture and small picture so that you have those tools you need to make empowered decisions that are going to help you grow your portfolio. And with that, we're going to help you develop an ongoing strategy with Fidelity. So not just how to construct and implement a portfolio, but also how you manage it moving forward. We're going to start with some education on the different dimensions of bond investing, show you some resources that we have to help inform and assist you when you're selecting your bond investments. And it also provides some insights about how you can make some more prudent and informed decisions.

So really our goal here at Fidelity is to have the most educated and empowered investing group in the country. And so we want to provide the tools and resources so that you can do that. We find that when we have those things you're more successful investors. And when you're more successful investors you're happier with your relationship with us. So that's what we want to make sure that we're delivering for you.

So I want to start with some common questions here. So these are some things that we just want to throw out to get you thinking about maybe how this

could be important for you. The first one is how many of you can describe the risk and reward of different types of bonds? So you think about different asset classes. Also we're going to get into that with the different dimensions of bond investing, how you might see different flavors there. We're also going to look at how many of you understand the rate cycle and how that impacts the prices and yields of bonds. And then the third thing we want to ask is how many of you know the different bond strategies to help you manage your wealth. So that's what we're going to get into last.

And through this here's just an agenda for today of the different topics we're going to cover. First, we're going to look understanding macroeconomic trends. We think that the fixed income market is really driven by that. And we're going to look at a few different things that we think are really important in driving prices and yields in the market. Then next we're going to explore the three dimensions of bond investing that we keep referencing. Next we're going to move on to investing in credit markets. So those are just bonds outside of the treasury market or FDIC-covered CDs where you see credit risk, and how that's going to impact the way that you build your strategy. And lastly we're going to talk about the tools that we have available for you and how you can use those to craft different strategies.

So again, the first topic -- understanding macroeconomic trends. We're going to visit some key market drivers, both leading up since 2008 up until recently. I'm talking about the economy since 2007, the way that US Treasury yields are really a benchmark for the market, and also going to talk about the market's reaction to easing and tightening -- very, very important given the recent news about Fed policy changes.

So four key market drivers, talk about climbing the wall of worry. So through 2018 we found most of the benchmark indices end the year in negative territory with 2019 strong bounce back. So a lot of that's going to be driven by the Federal Reserve's policy and the way that they verbalize that. So they're going to set that Fed funds rate, but they're also going to provide language about their outlook for the economy, and also just a little bit of prediction about what they think they're going to end up doing in policies in the future. And so a lot of that is going to drive the stock market, but especially it's going to drive rates that are available and the shape of the curve there.

The next story is about the global GDP growth. So we saw some challenges there just due to the trade wars that we know were out in the news. Severe disruptions in the global supply chains and then also had a dampening or chilling effect on capital investment throughout the globe. We saw some risk,

but we saw that there were some sectors remained resilient. We also saw things like low unemployment, which we're going to visit in the next slide. We started to see some real wage and income growth so thinking about the way that the unemployment rates drive supply and demand in the labor market and how that can increase real wages. And also started to see modest increases in home values and some more favorable financial conditions there. Those are things like the fundamentals really separated from what we're experiencing now with coronavirus fears.

Also look at something that we think is very important. We saw a lot of news and traction around this, which is that the yield curve actually inverted in the summer. So the yield curve inversion we're going to take a much deeper dive into later. It's just the relationship between yields on short-term and long-term bonds. Usually an indication here that monetary policy is too tight. So you see the separation between policy-driven rates on the short end of the curve and then supply and demand forces in the market at the long end of the curve. And one other thing that's very important as we start to look around the globe into negative yield and just the global market for that has increased in a huge way -- it's now about 17 trillion the last time we captured the number.

Another important thing is just a difference in the flavor in the way that the Federal Reserve talked about their policy. So a switch from a normalization approach to a mid-cycle adjustment. And of course we've seen a little bit more clarity about that recently with further easing. The Fed is meeting again March 18th with many people expecting continued easing from there. So there was just a shift where mostly the narrative was around rising rates and as we got more information we started to see that shift a little bit towards the... more expectations of easing.

So here next, this is the first real chart that we're going to take a look at in a series here. A few things plotted here. We look at the unemployment rate, the two-year treasury yield, Core CPI -- which is just a key measure of inflation that we use, especially as it relates to consumers -- and then the darker green is going to represent private payrolls. So that's up against the right axis instead of the left axis, which is the percentage. So you just start to see the way these cycles start to appear whenever we back these figures against each other.

So you're seeing an unemployment rate driven down here as we move through time. That's a key measure of the health of an economy, it's how many people have access to employment. This is a figure that is being

captured here that doesn't necessarily capture under-employment. And so you start to see this discrepancy between what seems like a falling unemployment rate against wage growth pressures, which is going to be represented in CPI and private payrolls. And so this is important. So you start to see this pattern emerge with the -- especially, we're looking at the big dip there through 2008 and 2009 where we just saw the big pull back in economic productivity. And you can kind of see the way that the market reacts when there's a spike in the unemployment rate that the private payrolls dropped. And then moving through time the way that that affected. And then we're starting to see a little bit of an uptick in that inflation pressure that we hadn't seen previously.

Next we're going to look at the trend in the US treasury yields and how that pulls over from the chart that we just looked at. The thing that we did here was we highlighted the rate hike cycles. So usually expansions and growth periods where Fed policy or monetary policy it's going to be normalizing. And so you see that highlighted in that baby blue. And then the gray highlights are actually going to be recession. So you see sort of this uptick. And I think especially one of the things that you know this year is that we tend to hike gradually and then we tend to ease or drop the rate in a very quick way.

And so as we start to see this pattern emerge that as we move through time, our extended period of VIRP or zero interest rate policy, that begins in 2009. As we move through time to 2014 the rate's ultra-low for a very, very long time. And you can still see the supply and demand. So that blue line that we've been referencing, that's the Fed funds rate or the policy rate. This darker blue line is going to be the 10-year. So you start to see this disconnect where the market is really going to moving separately from that policy rate.

I think one of the most interesting things that we see happen here is there in 2009 we see that quantitative easing or QE as it's represented here. And then we're seeing rates fall and there's this big spike at the taper tantrum when they announce that quantitative easing was going to start to slow or pull back. And so you see the way that these rates in the market can be very volatile and sensitive to these items especially. And on top of that we're looking at just the way that rates change as we move through time. During periods of growth you start to see that normalization where rates start to pick up as we move into a recession you're going to see the pullback there.

The next thing that we're going to look at is the market reaction to the easing and tightening. So we captured a couple of different periods of quantitative easing. So that's going to be places where we feel the economy is less health

and we need some stimulus. And then we're looking at rate hike cycles, which is just normalization whenever we feel like the economy is very strong. And so you start to see these patterns emerge I think here. The first one is just if we look over high-yield bond rate of return tends to be higher than most of the other things. But we also see it's much more volatile. So looking here the things tend to underperform relative to higher-quality asset classes, during the hike cycle. And so just remembering that a price and a yield of a bond is not just related to what's happening in the rate market -- also the shape of the curve and the way that that relationship between short- and long-term bonds starts to pop out. You're also going to see credit spreads, which we're going to dive into later. The relationship between high-quality and low-quality bonds are going to pop in. So this is when we start to say the different dimensions of bond investment.

So we're going to encourage you to learn more here. A wealth of information, there on the website. We worked really hard to make sure that you have everything that you need available to you, especially when it comes to data points, so that, if that's a part of your research process, you have that information available. And through your Fidelity account, you get access to all that information for free. And that's going to be on the News & Research, fixed-income and bond planning page on [fidelity.com](https://www.fidelity.com).

So we've referenced just a couple times today we're going to be talking about the three dimensions of bond investing. So general rates, we're going to call that understanding the Treasury yield curve. That's really the benchmark that all the rates in the bond market are going to be based off of. So we need to start there. Next we're going to look at how sub-asset-classes within the bond market are going to have different risk and reward characteristics. And lastly, we're going to look at how the sub-asset-classes actually have range within them. And so we're going to call that a range of yield around the sub-asset-class benchmarks.

So the first thing that we're going to do is just looking at the Treasury curve, the shape of it. So that's the relationship between short- and long-term bond. So the first, kind of, curve that we see is what normally would be considered a normal curve or a steep curve. So that's an upward-sloping curve, that we're all used to. Econ 101 here. And that's just going to mean short-term rates are lower than long-term rate. The long-term rates are going to have the risk of rate uncertainty priced in in a bigger way. So hypothetically, you need to be compensated more for taking that risk on. And whenever the market is normalized, you start to see that pattern emerge, higher rates over the long-term, lower rates over the short-term.

Another option for the curve shape... It's going to be through a different part of the cycle, more toward the end. So as the Fed starts to raise rates, you see those normalized rates over the long-term. And that short part of the curve, that's really driven by the policy rates, that starts to pop up. And so whenever you see that, that relationship between short- and long-term rates is going to move closer together. So that curve flattens -- is what we call that. So that means pretty neutral rates, across short-, intermediate-, and long-term. And again, that's toward the end of the cycle, as the Fed raises rates and you start to see the Fed funds rate at its peak.

And lastly, we're going to look at an inverted curve. So this is a curve where the Fed policy goes unnecessarily high. So you see the supply-and-demand mechanics in the latter part of the curve. They push rates further down from where the Fed policy has short-term rates pushed. And you see this typically at end of an economic cycle. This is when the Fed rate hikes are complete and you're actually at that peak. So you'll see this, especially if you're watching the financial news on TV, when the curve inverted, this is really big news. And it represents this illustration of a preference shift from short- to long-term. And it represents the disagreement between the policy rates and the actual supply-and-demand mechanics in the latter part of the curve. So that's the first

dimension, looking at the shape of the curve and how other rates are based around that.

Next we're going to look at the sub-asset-classes within the bond market.

Each of them have different risk and reward characteristics. I think this graph is going to be really interesting. So we're showing the different asset classes, first junk bonds or high-yield corporate bond. Next we're going to be moving into US dollar-denominated emerging-market, investment-grade corporate, TIPS, which have that inflation element to them, muni, mortgage-backed security, the total US aggregate, which is all the different parts of your market combined, and then US Treasury. So you start to see, as we move through these sub-asset-classes, less volatility in the rate of return. So the magnitude of each of the bars is going to represent the value of the return. And then values above the line in the middle are going to represent positive return. Bars underneath that are going to represent negative returns. So you see, for high-yield corporates, you know, overall, long-term higher level of risk, higher reward over that long-term. But in the meantime, you're going to experience a lot of volatility. One of the things that you'll see here is, the longer-term your time horizon, the bigger your appetite for risk might be. And so you have time to wait out that volatility. Whereas, if you're already in a phase, let's say in retirement, where you've saved, you finished saving, and you've started to pull

from that and you'll cover your expenses in retirement, you may not have the time to wait that volatility out. Then you may have a preference towards the higher-quality asset that we see over to the right of this page. So we're looking here... With each of the sub-asset-classes, you see the different years plotted. Two thousand eight, which is that dark green, it's going to be the bar where you see the most prominent negative return -- obviously represents a period in the market where there is fear around default. So both defaulting bonds but also the market pricing at a discount those bonds, that they're -- start to become more worried that there will be default. So you see that emerge here.

Next we're going to look at how, within the sub-asset-classes... So not every junk bond is the same. Not every investment-grade corporate bond is going to be the same either. And so this is the yield table that we show on fidelity.com. I think it's the best way to get a view on the market through those dimensions. So you're starting to see the asset classes on that y-axis over to the left, the x-axis moving through the different timeframes here, and so you'll see asset class, credit quality, through the credit rating that we're showing, as well as the maturities and the duration exposure that you're getting through the dates that are listed. So there are a few different ways to view this table. The default is actually going to be to show the very highest yield available through that asset class or through that sub-asset-class. As we've talked about before, that

rate of return is going to be a representation of the risk that's presented in the bond. So within the sub-asset-classes, even if we look, say, at investment-grade corporate debt and specifically at the triple-B part of the market, which is about two-thirds of the way down that list, you start to see there's actually a broad range of risk levels being priced in by the market there. So instead of looking at the default highest yield, you can pop over, look at the median yield. And that's really going to give you a good target about where the market is really pricing in that standard of credit risk. Remember also that the market is very dynamic and it's very agile. And when you start to see prices move much more quickly, then your credit rating changes. So as fast as those credit-rating changes happen, they're not going to be live the moment where the market is.

Okay. And so moving here, we actually pulled out a chart... So this is going to be a list of your triples that you'll see, from any of those links that you saw on the previous yield table. So it's going to show you here a range from top to bottom. So this is stacking the highest yields available within that high-quality part of the market to the lower-quality. So, of course, in the higher-quality part of the market, you do see less variability. The standard deviation away from the median is going to be smaller here. But still there is a nuance and a difference in the yields that the market is willing to pay for each of these

different risk level. So you see that represented through the maturity date, the credit quality, and also the capital structure or the coupon structure that's presented here. So you see these yields? We've highlighted that in red, just to make that really easy to see. So from here, if you don't feel comfortable doing extensive credit analysis on your own, sticking to the median yield is going to help you rely on the market, to say, "This is really what the market thinks true double-A or true triple-B credit quality is going to represent at any given moment." And again, this is all going to be found on fidelity.com, through News & Research fixed-income tab. You can also get there by going to fidelity.com/fixedincome-- and then /tools.

And we're going to move on from here to our next section, which is about actually investing in corporate and municipal bond. We're going to be comparing the risk and rewards of various bonds here, moving into a deeper dive into pricing and how that affects risk -- got to look at that a couple of slides ago -- and then also talking about the infrastructure of tools that we've built, that we think can assist you in your research.

Okay. So this is looking at corporate bond spread. So again, this is one of those charts that's through the end of 2019. A very different story happening right now. But this is to our context, which we think is going to give you the

right set of goggles that you need to approach what's happening right now. So you see investment-grade corporate bond spread. You'll see the "OAS" listed on the left. That's the "option-adjusted spread." It just represents the relationship between the yield that a corporate or a credit bond pays relative to a Treasury with a similar duration profile. So you see listed here that, as the market gets more pessimistic, they also get more pessimistic about credit default. And so you start to see that priced in. So you're going to need to be compensated for that perceived increase in risk of default, by getting a higher yield over a Treasury. Whereas when the market is very, very optimistic -- that can also be rare -- you start to see Treasury and corporate bond yields move closer together. So this is what we see. So the big spike there in the middle is going to be through 2008 and 2009, when pessimism and fear of defaults were really at their high. So you see that through very bearish markets. So this is showing the relationship between the equity market and the fixed-income market, especially when it comes to lower-quality corporate bond, just because there's such an overlap between the risk profile there. And see, as you move through time, spreads ultimately very low towards the end of 2019. As we've started to see volatility recently in the equity markets, those spreads have widened. And so that's why, if you're tracking a relationship between bonds and stocks and you have lower-quality bond exposure, you may actually

start to see that there's less negative correlation. And that's because the Treasury yield is moving and also spreads are widening at the same time.

So from that list that we looked at earlier... That's going to show you all the different corporate bonds that meet that search criteria that you've put in.

From there we can go to the specific detail page of the specific... Here we're highlighting an AT&T bond. We've got highlighted here, in this light green, the different credit ratings and also the issuer event. We're going to take a look at that on the next page. So you start to see here yield is an illustration of credit quality. The Moody's and S&P rating that we have listed, those are another aspect of the credit-quality story of a bond that you purchase. And one of the things that we do is we capture issuer event. So these are material things that happen in the life of a bond that regulators feel need to be reported to you. And we show this here. You can find those through that link by clicking on "Yes," that we have highlighted in that green box. And that's going to help you take a deeper dive. That's going to give you that deeper look at the risk level that you're really going to be taking on, if you enter into this trade.

So moving forward here, this is the snapshot of what you're actually going to see if click to view more issuer event. The thing that we have highlighted here

is a Moody's and S&P upgrade. This is back in March of 2016. And then right above that, after it was upgraded, you see that Moody's and Fitch, which FTC, and S&P put them on a negative-credit watch, saying, "We're not downgrading them yet but we are going to start to look at information with an eye that, if we see something we don't want to see, we may downgrade it." So that's something, if you're going to buy a bond and it's on negative-credit watch. You see it's triple-B. That's within my sweet spot of what I buy but double-B is not. If you buy a bond that's triple-B that may be downgraded to double-B, you say, "Do I want to be holding this six months from now, if it's downgraded?" So here we're giving you the information that you need to make as informed of a decision as you can.

So in addition to the credit rating, we talked about yield, which is really a reflection of the price that you pay for the bond. Here we're going to see that there's actually a book. So if you're an equity trader, you'll be familiar with these concepts of quotes or level-two quotes. We're actually going to show you that level-two quote, which is just looking into the book, that there may be multiple dealers on each side of the market offering different quantities of bonds at different prices. So we think, whenever our clients have more information, they're able to make a more empowered decisions. So that's what we're showing you here. So you're seeing the price listed for both side.

So that's that first box that's highlighted. So the bid is going to be the sell price where you'd sell. The ask price is going to be the price where you would purchase from a dealer. Different kinds of bonds are going to have different spreads there, so the difference between the price where you might buy and you might sell. It's going to get bigger for a less actively traded bond. And so you see that show up here. Over to the right, we're going to show you that that's the book or the level-two quote. We're going to show you that there are multiple dealers on each side of this trade offering that same bond. On the right, you have people holding a sign saying they want to sell it to you. On the left, you have dealers holding a sign saying they would like to buy it from you. And they're going to show the different prices.

Underneath that, I think a more interesting story too. A lot of clients don't know this-- but there is actually a ticker tape for bond trades. And so you can see here the price that you're being asked to pay for a bond, relative to recent trades in the market. Another thing that I think that's really interesting is you can use this to find if your dealer that you've been buying from has been charging you markups. You can see, "My dealer bought this at a price of 102.5 and then sold it to me at a price of 106. And you start to see that that spread that they charge there is their profit on the trade. So you're able to keep your dealers honest by just looking at this. Also helps you decide if you feel like

you're getting a fair price for the bond. So we think this is really important, just as important as looking, as is first mention of credit quality and maturity.

And to also help with your credit-quality research. We find that most individual investors don't feel comfortable doing that on their own. So we've partnered with Standard & Poor's or S&P, to find these issuer-level credit researches. We make these available for free on the landing page of the corporate bonds that have these available. So, really, really important. I find that they're very easy to digest, even for novice investors, usually about five or six pages. They're going to run through the rating that they provide an issuer and then also the reason why they've provided that.

You'll see here on the next page, towards the bottom they're going to list the strengths and weaknesses, so it will say, "This is the thing that we think makes the credit good. These are the things that we're worried about." Deeper into this report, you're also going to see things to watch for -- say, "Hey, we might upgrade it, if this happens. We might downgrade it, if this happens." So again, it's just to give you a more complete story around an issuer, that's going to help you make an informed decision about whether this is really a good fit for the risk profile that you want to take on with this trade.

This next chart is going to show something called MMD. So that's the resource for the data that's being provided. And it just represents the yields available in the municipal market to the Treasury market. So just like the credit spreads that we looked at previously, this is going to be a really important story around what we call relative value, so considering different asset classes in the market that might actually help you find opportunistic trade, about what's going to be right for you at any given time. So here we're tracking municipal yields as they change. There's some relationship, in the green muni yield, to the yellow Treasury yield. There are some places where we see some divergence. So you start to see that first one -- there are some insurance agencies in the muni market. They start to report huge losses on credit derivatives at that first spike. You're moving through 2008, when you get to the financial crisis, people, again, more bearish on issuers, saying, "We're more worried about defaults now" than they were previously. And you start to see a big difference between this than, say, assets of Treasury and munis, which all of a sudden have become non safe haven assets. Moving through we'll start to see another spike, when a person named Meredith Whitney went on *60 Minutes* and said, really, "The sky is falling in the muni market. Everybody call your broker and sell to." Whenever you see that shift in demand... It started to show up in the market as reduced prices, which spiked yields up. And then again, back in 2013 -- very meaningful -- Detroit files for

bankruptcy, the largest in history. And a pretty chilling effect for demand, not just in Detroit, not just in Puerto Rico or Chicago but also across the muni market, where people really started to get thoughtful about the exposure that they had. And here, back in 2015, the last event that we have listed, there is talk of limiting extensions on munis. And so that scared people and moved them away to cover that.

So here, moving through, we're going to look at the next chart, which is just the... The same chart that we looked at previously, for corporate bond, also going to show the same thing for a municipal bond. Here we show Connecticut municipal bonds, for those of you that are Connecticut residents. The Connecticut market, sort of unique in that it doesn't have the best credit quality, doesn't have the hugest variety of issuers. And then, at the same time, there is a large percentage of very high-net worth individuals, with high tax rate, that are going to drive demand for that paper within the state of Connecticut. And so you see that show up here, that, even in the municipal market, where things tend to be very high-quality, you do see some variability in yields here, that represents the market's perspective on risk differences.

And we're going to show the same page again. So this is a detailed page, for a municipal bond rather than a corporate bond. You see one thing pop up. This

bond is insured by HEMC. And so you start to see there's a little bit more creditworthiness that's presented there. We get a little bit less nervous about the credit risk of the issuer, knowing that it's going to be backed up by an insurance company. Material events, again, available here. We'll look at that on the next page. And then over here, rating, so for the underlying issuer as well as the insurance agency, which we have highlighted in the green boxes.

Again, this is the material events for a municipal bond. Relative to a corporate bond, you may see more here, because they're regulated separately. Some of the things here are going to be that they are frequently filing financial. That has to be reported, if they're missing financials, as well.

Moving next here, we've got a chart that's actually new. So, very excited to show this to our client. It's a graphical representation of the trading history for a bond. And so when I say that, we're actually going to plot, as you move through time, different customer purchases and customer sales within the market, for a specific CUSIP. And you see the lighter blue are going to represent customer buys, darker blue, customer sales. So you see, a lot of the time, very, very close proximity in time of a sell to a buy. And then also you start to see emerge that mostly people are paying more for a bond than they're getting when they sell them. And so you start to see that spread

captured as the dealer markup that you see at a lot of other firms outside Fidelity.

And so we actually took this information and did a little bit of research. And you start to see what firms outside Fidelity are actually charging. So again, we're looking at that spread between the dealer price and the customer price. As of a few years ago, that's actually mandated, that you show that on trade confirms, for those of you that are buying bonds. That's actually used against the height of the full market price, whereas here we're looking at the markups - - actually, at the spread. So here we're looking at Morgan Stanley, Wells Fargo, and Merrill Lynch. These are full-service brokerage firm. You start to see that higher spreads appear on corporate bonds, rather than municipal bond, mostly because those municipal bonds are regulated separately. And they also have just some muni characteristics and liquidity in the way that they trade. So this is just showing the power of Fidelity. A while ago... It's really important to us that we felt that the bond market traded so separately from the equity market. We had made such huge strides as a community, in the way that we give individual retail clients access to trade stock. And we said, "We really want to work to replicate that in the fixed-income market." And so we came together and built this system of aggregators, which really allow you to connect directly with all the dealers that are out there offering bonds.

Whenever you started to see that competition come into play, you started to see much more attractive pricing for individual investors. So this is what we're showing. And this is why you want to get access to it. And especially, I think, in an environment like this, where yields are so low, so compressed, the fees that you pay become a really important contributor of the yield that you're going to get to keep in your pocket at the end of the day. So from a bottom-line perspective, managing fees is one of the most important things you can do right now.

So Fidelity does want to offer you a great price. But we want to offer you everything that you need. So we're going to talk a little bit about the power of the offering here. The first thing is the market commentary from Fidelity and independent sources. We have on the left a viewpoint that's put out by Fidelity thought leadership. And then, on the right, this actually stuff that we pay for, that's not even from Fidelity. So we know PIMCO, for example, is a trusted source, that many investors look to. And we want to give you access to that, all the same.

Next we're going to talk about the ability to research new-issue bonds and filings, especially in the municipal market. Uh, lots of clients like to participate through the new-issue process. Um, and so we're showing, on the very left, a

preliminary offering statement and then moving through... That Standard & Poor's report we were talking about, the corporate bond -- also available for municipal bonds, for most issuers. Here we're looking at the State Public Works Board of California. So we're going to walk you through, you know, what are the sources of revenue that cover that bond, how stable is that. And you can find out more information, again, at [fidelity.com](https://www.fidelity.com). And there's a News & Research fixed-income, bonds tab -- [fidelity.com/fixedincome/tools](https://www.fidelity.com/fixedincome/tools).

The next section of the presentation is going to be about some of the common financial situations that come up for clients that we think bonds are going to be helpful in. So we're going to talk about how to use different investments strategies to manage those different situation, looking at bonds as a series of cash flow, and how we can use them in a combined way to tell a bigger story that's going to help you with those needs and also talk about how you can use the tools to make sure that you're diversified across bond types and sectors that make sense for you.

And starting with the common financial challenges, we're going to look at college education, I think as a very specific situation of where you might want to use individual bonds, because you have a defined cash-flow need at a future point in time. The second challenge that I think a lot of clients run into is

that they worry about rising interest rates. "What do we do, if we buy a whole portfolio now, at all-time lows, and rates go up? We're really going to kick ourselves, wishing that we'd waited." So rising interest rates is something that I think is top-of-mind for a lot of clients. And then next, looking at inflation fears, so a similar concept. "What happens if we push our portfolio too long and we see inflation creep in in a portfolio?" We're going into that. Also looking at a stock sell-off, one of the most common situations that investors would use bond. And then another challenge is how do you build a portfolio without being over-concentrated. In California, we see a lot of clients that have an over-concentration in the State of California general obligation debt, because they feel like that's an issuer that they know. Another common thing is you may see that there's a client who is over-concentrated in one specific sector in the corporate market, usually because that sector is more bearish in the way that the market views it and so the market starts to price that, and cheaper. The yields there become more attractive. And so it's easy to get caught in that trap. And we have tools both for constructing bond strategies, the bond-ladder tool. And then also, once you have that strategy constructed, we have a fixed-income analytics tool, that's going to help you keep track of that.

So for the strategies, first we're going to look at cash-flow planning. Here that's a situation like college-education planning. Another place where this might come up is for clients that are in retirement and are looking at ways to fund their minimum required distributions or even just the cash flow to cover your everyday expenses. You see here this negative bar, the invested principal. That represents a debit at the time that you purchase the bond. So that green bar is how much you paid for the bond. And you're going to see the blue as the cash flow that you receive over the life of that trade. So the dark blue represents the coupon payments that you receive through the life of the bond. And then, finally, that big chunk of return of principal at the end. So once we know that this is what a bond trade looks like, we can start to put those trades together. And you see that over here at the end. So here the light blue is going to represent coupon income. The dark is going to represent return of principal to you. So in this situation, we have a client that's going to get a ton of flexibility and an even cash flow over these timeframes, as the ladder actually starts to pay its principal out.

So we're going to look here at college-education planning. This is a student that's going to be starting college in 2021. You can use bonds with specific maturities to provide that cash flow for you. So let's say that you know you're going to have to write checks for about \$25,000 a year in each of those years.

Buy municipal bonds, for example, for those that are in high tax brackets and you want to create a strategy that's tax efficient, you can use those. Temporalize these maturities here, that way you know that that cash is going to be available to cover that check you'll have to write.

The next thing that we talked about, rising interest rate through time. How do you diversify in a way that helps protect you against that risk? So here you're protecting against the risk that rates could rise. At the same time, you're exposing yourself to the risk that rates might fall. So this is just a way to meet in the middle and say we have a neutral perspective on what will happen in rates, acknowledging nobody really knows what's going to happen. But we do want to mitigate against those risk in whatever way that we can. Diversifying your maturities, through a ladder strategy, is going to help you do that.

The next situation, that I think a lot of clients will use bonds, and we're seeing this right now, is a sell-off in the stock market. So some types of bonds are less correlated with stocks than others. We're going to list the correlation here. For those of you that are not familiar with this figure, a higher absolute value is going to represent a stronger correlation. So that means, when the stock market moves, the bond market moves, for the specific sub-asset-class. And then the numbers that are shown in parentheses are negative numbers, for

negative correlation, showing that, if the bond market -- or if the stock market moves up, we expect this asset class to move down at that time. So strongest negative correlation, obviously, in the Treasury market. Broad range of maturities available, that tend to have longer maturities available than other parts of the market, and, obviously, very high quality. So that long-term and high-quality flavor means that it's going to be a safe-haven asset, that people run to during a stock sell-off. We're absolutely seeing that happen right now. So those, you see this negative-correlation effect, that that volatility that you're seeing in the stock market is going to transfer over to the bond market as well. And we show you the fixed-income market data available. This is a great place to start your day, if you're a fixed-income investor. And it's just going to show you the performance of the different benchmarks, as we've moved through time.

And the fixed-income analytics tool that we're talking about, once you have a portfolio implemented, this is going to help you keep track of what that looks like. Here you see a big chunk of exposure to Treasuries, with some in the other asset classes. And then Sector Exposure, to the bottom left, that's probably the most useful thing that you can do. Here, this person's overexposed, probably, to financial services. For municipal bonds, you could see, "Hey, it seems like we have a lot of airport bonds, we have a lot of hospital

bonds, maybe that's more risky, and it makes sense for us to dial that back, and because it's going to be more stable." So again, fixed-income analytics tool, going to be available on fidelity.com, through that green navigation bar at the top. This is built into your guided portfolio summary that you have. Most people are going to remember that-- that's that big pie chart that shows your asset allocation, whenever you log in to the website.

So here, in review... We talked a little bit about the macroeconomic trend. So those are the big-picture things that are going to really be driving the bond market. We always say the stock market is about the market but the bond market is sometimes about the economy, whenever there's a disconnect there. And it seems like the stock market is saying one thing but the bond market is saying another, a lot of that is just about the way that the timeframe of the maturities start get priced into the bond market, in a way that the stock market may be more myopic and really focused on valuations more than fundamentals. And then after that we talked about the three dimensions of bond investing, so, remember, looking at sub-asset-classes, credit quality, maturity, and also that within each of those things there's still going to be a broad set of options within that that represent different risk-and-reward profiles. After that we talked about investing in corporate and municipal bonds, a really, really powerful research tool available to all of our clients, on the

website. So really, no matter what detail you want to drill down on, we give you the flexibility to search through the result, through that specific lens. So that's there. The last thing was we talked about doing the tools and how those can help you construct and manage different strategy, especially the ladder tool we looked at a lot, which is just going to help you diversify across the maturity. And then you look at the analytics tool, as a way to diversify across the other dimension, like credit quality and like the different sub-asset-classes and the different sector exposure, through corporate or municipal bonds.

So here are some things that we might ask you to do as next steps, if you did find this information impactful, because you are an investor for whom fixed-income is important to your overall strategy. We encourage you to reach out to the tools that are on the website -- a wealth of information there. And again, our goal is to make you empowered, so that you can be a really good investor in this space. So you see that fidelity.com/fixedincome/tools and another landing page, [fixedincome/research](https://fidelity.com/fixedincome/research), which is going to show you all the tools that we looked at before, that are going to help you read the market and search through the different bonds that are available. In addition to the decks that we've presented today, which is called Investing Beyond Yield, there are some other seminars that are available. The first one is Demystifying Bond Selection for Your Portfolio. That's a great seminar for clients who have

decided they want bond exposure and they'd like to do it themselves, through a self-managed portfolio of individual bond. It's going to help you figure out how to use those search tools in a more creative and productive way, to build something that's going to be really smart, at the end of the day. Another one, about Understanding Bond Pricing. So that takes a deeper look at the ticker tape we showed earlier, so just to talk about how bond pricing can be a really important driver of the price and the yield that you're going to experience through your fixed-income strategy. And the last one is using fixed-income and bond investing tools through fidelity.com. These seminars are usually provided in your local Investor Center, by a Fixed-Income Regional Brokerage Consultant. Again, that's my role here at Fidelity. I work in Southern California. But there are Fixed-Income Regional Brokerage Consultants available for the other cities in the country as well. If this is something that's interesting and a conversation that you want to continue in person, please reach out to your local Investor Center and to your financial consultant that you're partnering with already to do planning. And just ask them about different ways that you can integrate the strategies that you've seen here today. Ask them if they have availability to set you up with your local Fixed-Income Regional Brokerage Consultant, so that you get an opportunity to take your deeper dive into this stuff in person.

So there's also a Fixed Income Specialist team that's available here at Fidelity. I believe many of you already have experience working with them, a talented and broadly available team, so that, no matter what you need or when you need it, we're going to be available here for you. And you can reach the desk, there, a 1-800-544-5373. Any of the pages on the website that are related to fixed-income are going to have that phone number displayed prominently there as well. So no need to write it down now.

I want to talk a little bit about how Fidelity is different than other firm, how we're built, and why we're built that way. The first thing is... We talked about Fidelity's philosophy. I think many of you are going to be familiar with that, probably the reason that you've chosen to invest here to begin with. We talked about educating and empowering our clients. And our goal there is to make things that are complex feel simple and accessible to you. And so we start with the planning and advice. That's available to you through your local Investor Center. You have those team of Financial Consultants that are available to do that planning, the wealth management strategies, family mapping, and things like that, as a role. So a ton of resources available here, that are very powerful, that are going to help you understand your wealth, your relationship to it, and how you're going to get it to work for you. The next thing is the trading platform. That's the part of Fidelity that I and my fellow

brokerage consultants work for, which is just, for clients, if they have a part of their portfolio that they'd like to trade themselves, we want to make that feel accessible to you. And we want to make sure, you know, that that's something that you're empowered to do here. So we want to build a really powerful platform, which we hope we've done, and then also provided those tools and resources. So if you want to maybe hear research but you don't feel confident to do that yourself, we make those resources available, that we talked about earlier. The next thing is straightforward pricing, just saying at Fidelity the price that you pay is what we're showing you and that's what we're going to get. So I think really important for us to disconnect the price that you're paying and the commission from a sales process. So that way, the investments that you invest with are not going to be clouded by a sales commission that your broker might be charging you. So getting access to expert insights and investing tools. That's what we looked at earlier. So those are things like Fidelity's viewpoints from our thought leadership, as well as the third-party researches that are available. And then the last thing, I think, is one of the most important things to our clients these days, which is just how is Fidelity working hard to provide you security for your information, as well as privacy. So if those are things that you want to learn more about, reach out to your local Investor Center. We're glad to have these conversations with you.

So our belief is that, with a more sophisticated understanding of the bond landscape, you can make more empowered decisions that are going to help you grow your portfolio. That's the goal with the content today. We really hope that we've helped move the ball forward and that you feel like you have some more tools today, that you didn't have yesterday, that are going to help you go out and grow your wealth and protect yourself during what I think are very volatile times right now.

END OF AUDIO FILE

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 slide 29) Fidelity commissioned Corporate Insight to study bond pricing, available online, for self-directed retail investors from five brokers that offer corporate and municipal bonds for comparison to Fidelity's standard online pricing. The study compared online bond prices for more than 40,000 municipal and corporate inventory matches from February 8 through February 14, 2018. It compared municipal and corporate inventories offered online in varying quantities. The study found that, on average, the three financial services firms identified in the chart were asking \$14.55 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 competitors 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 for the 12 months ending February 2018.

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 publically 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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