TRANSCRIPT

Rethinking bond investing

Richard Carter: Welcome, everyone, to our webinar today. My name is Richard Carter, and today I'm delighted to welcome Steve Shaw to our fixed income webinar series. Steve is founder and president of BondSavvy, a research service specializing in helping individual retail investors to invest in individual corporate bonds. Steve is a 22-year veteran of the financial markets and has worked in corporate mergers and acquisitions, as well as heading up bond market trading venue, Tradeweb Direct, actually, which is one of the firms that Fidelity partners with to sort our bond inventory. Steve founded BondSavvy in 2017.

So Steve, maybe you could just tell us a little about yourself, what is it that led you on this path, and had you interested in investing in corporate bonds?

Steve Shaw: Great, thanks Richard, and thanks so much for everyone joining. I think we picked an excellent day to talk about bonds, given what happened in the stock market yesterday. So, when I started, as you mentioned, at Tradeweb, back in 2008, I was like most investors; I invested mostly in stocks and in mutual funds. And my background was corporate finance, so my background is analyzing financial statements, understanding how companies operate, but

up until that point, I hadn't really thought about investing in corporate bonds, specifically individual corporate bonds. But when I was at Tradeweb, I saw how efficient it was to invest in corporate bonds; I saw how competitive of a marketplace it was where you have six to eight dealers who are providing bid-and-offer quotes, and then as I invested more and more in corporate bonds, I saw the compelling returns that you could make, and so I put all of my experience together; I put my corporate finance experience together, and then my experience working at bond trading venues such as TradeWeb and bind those together to develop a really strong expertise in corporate bond investing.

The one thing I realized though is that even though corporate bonds offer many strong attributes, which we'll talk about in a moment, very few investors take advantage of that. About 30% of investor portfolios are an individual stock, but less than one percent are in individual corporate bonds, and if you think about it, in the U.S., we have an aging population; we have 10,000 baby boomers hitting retirement age every day. Those folks are going to need to become better-versed in a variety of fixed income investments, and individual corporate bonds can fit the bill for many investors. That's why I founded BondSavvy, to help those investors invest successfully in individual corporate bonds.

Richard Carter: Thanks Steve, great. Well so, obviously you left corporate America, but not just corporate America, but as you say, very much directly involved with TradeWeb, the sort of Coface of bonds as their aggregators, and as prices and opportunities become available, so that's great background.

So maybe you could start today with laying out some of the challenges that you pose against some of the more conventional bond investing axioms?

Steve Shaw: Sure. So move to slide three, and as I started BondSavvy, I had heard about bond investing, and a lot of the traditional ways that people had approached the market, but as I invested more and more in individual bonds, I learned some things. And what I showed here on slide three is some of the common orthodoxies in the market, and these are things that I believe we can take a different approach to. So the first is, is that many folks say, well you can never beat the index, and I believe strongly that as an individual investor, investing in individual bonds, you have an advantage over an index. An index is owning thousands of bonds, whereas an individual investor, you can be very selective. So it's just like selecting a sports team; would you rather have the best twenty players, or would you rather have the best thousand players, and I

believe that as individual investors in individual bonds, you have an advantage, and you can beat the index.

The next couple points relate to how one approaches investing in bonds, and many people will get discouraged; they'll see in the market today, well ten years yielding 1.7%. Well why would I ever want to invest in bonds? But if you're able to find bonds that are priced a compelling value and then potentially sell those prior to maturity, you can achieve returns higher than the yield to maturity, which is our goal. We'll talk a little bit later how that approach differs from a traditional bond ladder. You also have people just focus on the yield of a bond, and again, we're looking for capital appreciation. It's just like in stocks where you look to buy low and sell high; it's a very similar type of approach, but you're getting the recurring income that you get of a bond, so you have in many ways the best of both worlds.

You'll hear people focus on the term "interest rates," and that, well, if rates are going to go up, and all bond prices fall, and we're going to show you how that's not the case; we're going to show you how there are many bonds out there that are not sensitive to interest rates, we're going to define what we mean when we say interest rates, versus Treasury yields, versus other types of bond yield terminology. And lastly, we're going to talk about bond ratings.

Now many folks when they invest in bonds, they'll look at a rating, they'll look at a yield, and now they'll determine which bonds they ultimately invest in. But a bond rating only tells you part of the story. It only tells you what the default risk of that is, and oftentimes, they'll show a little bit later, those ratings aren't necessarily what I would refer to as accurate. In addition, the bond ratings don't address the market. They don't address the price of the bond. They don't address the yield to maturity of the bond. They don't talk about the maturity date, and they also don't talk about how sensitive a particular bond's going to be to changes in interest rates, and so I believe that while it's important to know where the credit rating is, it's not the end-all be-all as it relates to making a bond investment decision.

Richard Carter: Steve, thanks. Well I mean, a lot to unpack there. I think, this is why we find at Fidelity a lot of investors do feel comfortable investing in individual stocks, but yet they feel intimidated by investing in the bonds a bit, right? So, can you maybe elaborate why you think that might be?

Steve Shaw: Sure. And if we go to slide 4, if you think about it, corporate bonds and stocks are issued by the same company. So Apple issues stock; Apple issues bonds. You know, Microsoft, same thing. And so, it's the same entity. The thing about bonds is that there are many advantages to them, because there's

a contract between the bond issuer at the company, and the bond holder, that has many advantages compared to what a stockholder receives.

So, let's take GE; GE is a perfect example. So GE a number of months ago cut its dividend down to a penny per share per quarter. Its bond, they can't do that, because its bonds have a contract. So, the bonds traded off a little bit, but then they've come back, because they have those contracted interest payments. So you have a contract between the bondholder and the bond issuer.

You then have what are called financial covenants, and all a financial covenant is, is it's effectively, the rules of the road for a bond issuer. It says, you can't have debt to the company's cash flow above a certain level. There are limits to what type of acquisitions the company can do; there are limits in terms of asset sales, so to make sure that a bondholder, when the person makes the initial investment, that that company's not changing drastically down the road. You're obviously senior to the common stock and the preferred stock, so if there was something bad to happen, the bondholders get paid first.

And then also, one of the things I love about corporate bonds is that, what I like to say is there's a corporate bond for everyone, in that, if you go into

Fidelity, there are thousands of bonds to choose from. All those different bonds have different levels of credit risk, different levels of interest rates risk, and individual investors can look at all those different choices and find which bonds make the most sense for them.

And the last point is, is that obviously the stock market took it on the chin yesterday; the stock market took it on the chin in Q4 of last year, and during those times, bonds held up. And it's important to consider having bonds that have that level of stability in one's portfolio, especially when you have equities that can obviously be pretty volatile.

Richard Carter: That's great, thanks Steven, nice summary. But could I just maybe press you a bit on the last point. I think people think like yesterday, or Q4 as you say, that the ultimate diversification when stocks go down is the Treasury market. Are you saying, are you suggesting that corporate bonds actually can show better, or less volatility in those conditions?

Steve Shaw: Yeah, and there's a perfect example. So if you go to slide five, so this is an example of Apple. OK, and this is just one day, and so on January 2nd of this year, Tim Cook, Apple CEO, sent a letter to shareholders saying, our next quarter's earnings are going to be less than what we thought they were

because iPhone sales in China are not doing particularly well. The next day, Apple stock fell 10 percent. The bonds, on the other hand, were solid, and the bonds were unchanged. It shows the benefits of, let's say you owned Apple stock, but if you also owned the bond, you'd have a security that was stable that day while still paying you the interest. And as we'll get into in a little bit later, Treasuries, are obviously the most interest-rate sensitive bond that's out there, and we'll show a little bit later how corporate bonds, how some of them are sensitive to changes in Treasury yield, and some of them aren't.

Richard Carter: OK, well let me, just take it, I know it's just one day, you picked this interesting example. But doesn't that even further prove the point that there's not much opportunity, bonds are solid, they really slowly and steadily appreciate to par over their lifetime. So where's the opportunity, something that doesn't move, like this one you showed me?

Steve Shaw: Sure. So many investors will say, well bonds are boring, you just buy the yield. So, on slide six, so these are three examples of bonds that I invested in. And they run the gamut from credit risk, so as we go from top to bottom, we start with the bond that has the least credit risk, like Apple, 3.85 to '43, moving down to Toys R Us, and obviously, Toys R Us is an interesting story, so we'll get into that in a moment. But the way that we approach bond investing

is you look at this Apple bond, and the green bar shows the price at which I bought the bond, and then the price at which I sold the bond. So this was a bond that had traded off; it was a bond; it's a long-dated bond, so it's due in 2043, and those bonds can be very sensitive to changes in interest rates. So this bond has fallen to 85, or 85 cents on the dollar, and I bought the bond late October of 2013, and at that point in time, if you move over to the right on that table, you see that the yield to maturity was quoted at 4.8%. But what I then did is I sold the bond at 95.32 a few years later and achieved a return of 6.4%, because obviously, if I would have held it to maturity, got par back, in 2043, sure, I would have gotten 4.8%, but I'm sure everyone on the call has played around with the retirement calculator where you change your projected rate of return from say 4% to 5% to 6%, and if you change it by 1% or by 2%, it can make a huge impact. And when you look at a bond such as Apple, a bond that has no credit risk, to get 6.4%, that's very compelling from my point of view.

We then look at some of the other bonds, so Cablevision is a large cable operator now owned by Altice. This was a bond that had fallen in latter part of 2015 that was rumored to be, about to be acquired. The bond had fallen to 79.25. Bond was quoted at a 10.1% yield to maturity, and then held onto it for a couple of years. I saw the upside opportunity waning, and then sold it at 99, generating a 17.6% return.

And then the most interesting was Toys R Us. So obviously, Toys R Us went bankrupt last year, but when I saw this Toys R Us investment, this was in 2016. At this point in time, Toys R Us was doing some good things. Its financials were improving; it was paying down debt. And so I decided to buy the bond at 83, and since the company was paying down debt, the company actually redeemed these bonds September 29th of 2016 at a price of 102.59, which generated a 54% return. So it just goes to show you that there are many risk-return opportunities. Now, Toys R Us could have turned out poorly. It's like other types of investing; there's skill involved, but obviously some good fortune, as in the Toys R Us case, could never hurt.

Richard Carter: So for example, I think you were showing us, Steve, how much these prices do move around, and over a fairly reasonable time span in most cases, although in Toys R Us, a very short time span, actually. But surely it doesn't always work out that like that. I mean you've picked three great ones that all returned pretty handsomely. What sort of risk management procedures do you sort of have in mind, for when things don't work out so well?

Steve Shaw: So what we're going to do as we go through the next several slides, we're going to talk about how we find value in the corporate bond market,

how we find the different opportunities out there, and then also, when we think about on slide eight, I'm sure many investors are wondering, well if there's a recession, what do I do, and if interest rates go up, what do I do, we're going to address how we get into those points as well.

But before we get into that, we're going to go to slide nine, and this talks about how, it sets the table for a discussion as to how interest rates impact the market, and how they don't impact the market. And what I'd like folks to think about is, when we look at the part of the left side of this page, these are government-set interest rates, so the Fed funds rate, that's set by the government, OK, so we know right now, it's Fed funds rate, 2.25%. That, when we look at corporate bonds, that might have some tangential impact on corporate bond price movement because when the Fed was increasing rates last year, longer-term rates did trend upward. But it's not the silver bullet where people think, well whatever the Fed's going to do, that that necessarily has a direct impact on corporate bonds. Generally when we invest in corporate bonds, we're investing in bonds that have longer maturity, say five years and over. And so we think about what really impacts corporate bond prices, we start in the middle. So we start with Treasury yields. So, this is different than the Fed funds rate, Treasury yields that we're talking about the ten-year Treasury, the 30-year Treasury. These, the prices of those securities

are set by the market. So, it's supply and demand, all different sorts of things could be happening. You could have foreign investors piling into Treasuries. You could have concerns around inflation, all different sorts of things impact that. Then we think about how that actually impacts corporate bonds. Sometimes moves in Treasuries do impact corporate bonds; sometimes they don't. So for investment-grade corporate bonds, bonds that are rated BAA3 and triple-B minus and above, those bonds can be sensitive to changes in Treasury yields. High-yield bonds, however, are a credit investment; those bonds are not sensitive to changes in Treasury yields, and we're going to unpack that a little bit and give a specific example on the next slide.

So move to slide 10. So this is the screen, if you look on the left side, if you go into Fidelity and you find a bond that you want to buy, and you click buy, there's then a hyperlink where you click "View Bond Details," and then there's a tab, you'll see here on the upper left which is price and performance. When you go to this tab, this is an extremely important screen. So this is the Verizon 3.85 of 2042 bond. Now, this bond has what's called a benchmark Treasury. All that is is if you look at the green box on the left side you'll see "Spread to Treasuries" and then "Treasury Benchmark," and you'll see Treasury benchmark, 23-year, 2.750%, 11/15/2042. So this is the Treasury bond that is closest in maturity to the Verizon bond. And the reason why that's so

important is what we're trying to do is we're trying to isolate the difference between moves in the yield to maturity of that Treasury bond, to changes in the yield to maturity of the Verizon bond. You'll see that right above "Treasury Benchmark" is the "Spread to Treasuries" of 1.445%. So, if you take the "Ask Yield to Maturity" which is the orange box 4.16%, and then you subtract the spread to Treasuries of 1.445%, that gets you to 2.716%. That's the benchmark, so that's what, on this date, May 23rd, that specific Treasury would be only 2.716%. And so when you then look at the table on the right, you'll see that the yield to maturity of the Verizon bond had two components. It was made up of the benchmark Treasury yield to maturity at 2.7%, then the credit spread of 1.45%. What's important for investors to understand is that, this Verizon bond, the yield to maturity is going to be driven by two things: it's going to be driven by how this benchmark Treasury yield to maturity moves up and down, as well as how the credit spread moves up and down. The credit spread is telling you, the extra compensation that the Verizon bondholder receives above and beyond the Treasury. The Treasury is deemed to be risk-free; some might argue with that, but for now we're going to say that the Treasury is risk free. So it's saying that you're going to get an extra 1.45% of yield on top of the Treasury.

Now, if you think about what happened since then, so from May 23rd to today, there's been a rally in Treasuries. So the benchmark US Treasury now yields 2.23%. The credit spread is very similar to what it was, but the yield of this Verizon bond is now 3.67%, and the price has increased, you'll see on the left side, the price and the ask was 95.378; it's now 102.5. So you see that that half a percentage point fall in the Treasury had a really significant, a seven-point increase in the bond. And so, it just goes to show you, those are the drives. So, you have to be concerned about what's happening with the Treasury, and then also what's happening with the credit spread, and the credit spreads are driven by, is the credit quality of Verizon improving, or is it worsening?

Richard Carter: Excellent, Steve. Thank you, that really helps, I think, breaking down, as you see people look at the yield on offer into these two components, the credit spread, which we here call the spread to Treasury, and then the Treasury benchmark yield to maturity. Does this also help you on the selling philosophy as well then, when you have these two components in mind?

Steve Shaw: Absolutely. So if we go to slide 11, this is an example of a bond that we had previously recommended, Marriott International, 3.125 of '26, and you'll see that on the date of the investment which was December 12, 2018, the bond had a total yield to maturity of 4.58% which was broken into the two

components, so the 2.8% for the Treasury, 1.78% for the credit spread, and had an ask price of 90.8. We then moved to May 15th. You'll see that the benchmark Treasury had fallen by half a percentage point, and the credit spread had fallen drastically to 1.09%. We're going to show a little bit later on examples of different credit spreads for different bonds, and you'll see that this credit spread of 1.09% starts to get close to where some Apple bonds are trading, and Apple is a much better credit quality than Marriott. And so this is a case where we saw this bond, the yields to maturity had now come down to 3.4%. There was a rally in Treasuries, and the credit spread had gotten to a point that we felt was a little bit above where the company was, and so we decided to sell the bond. And that's the case where, when we look at these different metrics, we can get an idea of OK, is there more room to run for this bond? We felt that with a credit spread, there wasn't more room to run. Now, Treasuries did continue to rally beyond that, so this bond went out. What we ended up doing is we actually ended up investing in some longer-dated bonds. But yes, it does certainly help inform selling decisions as well.

Richard Carter: I see, great. So you have our attention. So now, maybe let me pressure you to go deeper then, let's look at that credit spread number, or area you're focusing on. What is exactly your research process in order to get behind the credit spread number?

Steve Shaw: Sure, so if we move to slide 12, so what we'll do is we'll start with a bond search. We'll start on Fidelity, we'll do a bond search, but then we need to narrow it down to the bonds that we recommend, and that really comes down to financial analysis and comparing financial ratios of different issuers to where the bond are trading of different companies. And so, in terms of some of the numbers that we look at, so the first number that we look at is a number that's called EBITDA. Now many investors will have heard of a PE ratio, or price-to-earnings ratio. You've heard of net income. What EBITDA is, is that it's adding back non-cash items such as depreciation and amortization, it's adding back interest and taxes because we want to know how much cash flow does a company have to service its debt, to pay off its interest and ultimately pay down its debt. And so when we look at these two ratios, we focus on interest coverage and leverage.

Interest coverage tells you how much cash flow you have compared to your interest expense. So obviously if you've got a higher interest coverage ratio, you've got a lower risk of default. The leverage ratio is a little bit different. So, if you have a high leverage ratio, that means that you've got more debt relative to your cash flow. I've used the leverage ratio as the more pure ratio because if it's a borrower that's raising investment grade that borrower will generally

have lower interest expense, whereas if you look at just debt to EBITDA, that takes out that advantage, that investment grade a borrower would have, so we focus heavily on the leverage ratio.

And then the question is, well how do you start making sense of some of these numbers, and on slide 13, is what we call the corporate bond "sweat meter," and you know, when we think about the leverage ratio and the interest coverage ratio, so generally, if the leverage ratio is less than or equal to 2.5 times, and even I'd say less than or equal to three times, that's generally investment-grade territory. When the credit ratio starts to get north of five times, five-and-a-half, even starts to get to seven times, then you're this poor guy on the right, you're sweating; he had to tell his wife that he was investing in these very high-risk bonds; he's getting a little nervous. Interest coverage is similar in that, if your interest coverage generally nine times, ten times, you're in good shape. Alphabet actually has interest coverage higher than 300 times. Now, if you look at an issuer that has interest coverage of less than two and a half times, that's when you start to get into trouble, because interest isn't just the only thing you got to pay; you've got to pay your taxes, you've got capital expenditures. And so it doesn't give the company much elbow room if you're looking at interest coverage below that level.

Richard Carter: OK, well these are really helpful, Steve, I think great guideposts for people to use. I'm sure a lot of our audience may be wondering at this point, what about credit ratings? We so often see those here, well how do you assess those, in the mix?

Steve Shaw: Sure. So if we turn to slide 14, so this is the ratings scale, so below the blue line, that's deemed to be non-investment grade, or high-yield. What I would say about rating agencies is that, they're just looking at once piece of the puzzle. When you're a bond investor, you need to know the price you're investing, and you need to understand the yield-to-maturity of the bond that you're investing in relative to other bonds; you need to understand, is that bond going to be sensitive to changes in Treasury yields. And the ratings really only tell you one thing, and if you just look at the rating, you're not getting the full story. In addition, when you look at the methodologies that are employed by rating agencies, they tend to favor some companies over others, in that, if a company has lots of revenue, generally that rating can often be higher. Sometimes, the ratings can be skewed in that there are certain industries such as soft beverages where the leverage ratio is only a very small part of the rating. However, things such as product diversification, innovation and others are very heavily weighted. And so, you could have a case where a company such as Keurig Dr. Pepper which has a leverage ratio north of five

times, that actually has a triple-B rating, but you have other companies that have stronger balance sheets that are rated below investment-grade. So, you have many cases where the ratings don't necessarily speak to the true credit risk of the bond. That all being said, they're still important in that credit ratings determine in large part how a bond trades, because if the bond is investment grade, the bond will have sensitivity to rates because it trades off the benchmark Treasury, and then in addition, you want to have an idea as to whether a bond's going to get upgraded or downgraded, because many investors following the ratings. Many index funds can only own investment-grade bonds, and so if a bond gets downgraded, that fund can no longer own the bond; there's going to be a sell-off in that bond, and you want to know that. So if you're looking to invest in BBB- bonds, what we like to do is we like to have an idea in terms of, what would be the threshold that the rating agency would downgrade the bond, because we want to know, how much can the performance wane and it still maintain its investment grade rating, because if it goes to below investment grade, then the bond's likely going to go down five, six, seven, eight points.

Richard Carter: You have to think about what is the market reaction to that.

Steve Shaw: Right. So moving on to slide 15, and this gives a better illustration of how you compare credit spreads to the financials of the company, and then also bond ratings, and I've given a few different examples of this, and we're going to show two different bonds of both Verizon and Apple, and then other bonds of Expedia and Albertsons. And, so we used the Verizon example before. We showed how that bond had a 4.16% yield to maturity, and then the makeup of that yield to maturity was 1.45% in the credit spread, that's in orange, and then 2.72% of the benchmark Treasury. You'll see that as we look at these different bonds, that they all have different spreads. So the Verizon bond that's right next to it has a shorter term to maturity, and as a result, that has a lower credit spread, because there's less of a risk of Verizon going bust between now and 2026 than there is between now and 2042. You compare these to say the Apple bonds, and the Apple bonds have lower credit spread, because Apple is a higher credit quality company, and we know that by when we look at the leverage ratio in the table below the bar chart, you see the leverage ratio of Verizon is 2.4 times, it has $2 billion of cash and $114 billion of debt. And that bond was rated Baa1, BBB+. You look at Apple, Apple has a lower leverage ratio, but Appl is a much higher credit quality because it has $225 billion in cash, so they'd really have to screw things up at Apple for it to not pay back on its bond.

What gets really interesting is that when you move over to the right, and you look at bonds that are not rated investment-grade. So specifically, Expedia and Albertsons. We look at Expedia. Expedia is what's known as a split-rated issuer, in that when we did this analysis, Expedia was rated Ba1 by Moody's and BBB by S&P, so it was rated below investment grade by Moody's. Now, the leverage ratio of Expedia was 1.8 times, so it's lower than that of Verizon, and it has more cash than it has debt. So from our point of view, Expedia is a superior credit to Verizon. But, when you look at how the '28 bond compared to the Verizon '26 bond, it was yielding higher, so that's the case where we saw an opportunity in that bond. This is from May; we looked at the bond a while ago when it was yielding even higher. But those are the sorts of opportunities that we look for.

When you look at Albertsons, so Albertsons shows you how significant of a component the credit spread is to a high-yield bond. So you look at the overall yield to maturity of the Albertsons bond, 8.1%. Most of that is made up of the credit spread. And so if there's a change in the Treasury, that's not going to move this bond, because the Albertsons bond moves up and down based on the change in the credit spread. The change in the credit spread is going to be driven by the performance of Albertsons, so as it performs good or bad, that's going to impact that bond.

What's interesting is that you look at the ratings of the bond, so Moody's a while back withdrew its rating, and then up until a while ago, S&P had it rated as CCC+, and from our point of view, you looked at a 3.6x leverage ratio, the business had been performing well, been paying down debt, margins had been improving, that's a case where we saw an opportunity in that bond. So generally what we're looking to do, Richard, is we're looking to find bonds that are outliers, that perhaps have been overlooked by others, that have been rated disadvantageously, I would say, that don't necessarily represent their risk, and we're looking to find bonds that are priced at compelling values relative to the overall risk that they have.

Richard Carter: Fascinating, Steve. Thank you, that was really, really interesting. I mean, I think just in terms of, we say that ratings aren't everything, but you've really got to do this extra little bit of homework. But I think you've shown here very clearly just with a few key numbers that when you look at them all together with the ratings, you can often find that mismatch, and that's a great opportunity.

Steve Shaw: Yes, now the important thing is that, our work's not yet done. We talked about the financial analysis, and I would say that that's the more

concrete part of the analysis, in that, the company's filed financials; we can look at the analysis, we can go onto Fidelity, we can see where the bonds are trading and all that kind of stuff. That's only part of the puzzle as we move onto slide 16, because we need to have an idea as, in terms of the bonds that we're looking at, how sensitive are they going to be in changes in Treasury yield? How sensitive are they going to be to the changes in the overall interest rate environment? That's a big part of our analysis.

So we move onto slide 17, and what I've done here is I've ranked the same bonds based on how sensitive they are to changes in interest rates, and I've ranked them from 1 to 6. So the Apple 3.85 '43, that's the bond that's the most highly sensitive to changes in interest rates, and the Albertsons bond of '29, number six, that's the least sensitive. And we talked about before how Albertsons isn't sensitive to changes in Treasuries because the bulk of its yield to maturity is from the credit spread. When you look at the Verizon bond to '42 and the Apple bond to '43, both of those bonds are going to be sensitive to changes in rates because they're long-dated. Now, the Apple bond is going to be a little bit more sensitive to changes in interest rates because the Verizon bond has a greater component of its yield dedicated to the credit spread. So they're both going to be sensitive, but the Verizon bond will also have that credit component.

So when we look at, if you think about two different times to invest. When we were looking at bonds to invest in the second half of last year, the Fed was increasing rates, long-term rates were going up. We felt that there was a fair amount of sensitivity, interest rate risk in that market. So what we were doing is, we were staying away from longer-dated bonds such as this Apple of '43 bond, especially the Verizon bond. We would look at some of the shorter-dated bonds, like the Verizon of '26, or the Apple of '26, because those had less interest rate risk. But generally where we would focus would be bonds rated below investment grade, because they weren't sensitive to changes in Treasury yields. And that's generally where we stayed the second half of last year. But then as the market changed this year, and the Fed didn't do anything for the first half of this year, and long-term rates were starting to fall, that's where we got more comfortable investing in longer-term bonds, because felt a lot of the interest rate risk had come out of the market, and that's where we would be comfortable. So, let's say we got to a point when we did all of our credit analysis, and we said all right, the Verizon bond, yes; we like Verizon; we like Apple. But if we went back to last year where obviously we likely would have stuck with the shorter-dated bond, but now, there was more of an opportunity for capital appreciation with interest rates, effectively a wind in our sails. Now, the question is, well how much more

room is there to run? And so, you'll have to think about what opportunities are there; we make our next set of recommendations, but all these things factor into which bonds we ultimately like.

Richard Carter: Especially like now, where you've got credit spreads fairly tight and rates have come down, right?

Steve Shaw: Yeah, so that's why you have to be very selective in your investment decision.

So moving on to slide 18, I thought what would be helpful, Richard, is to give folks an idea in terms of some of the bonds that we've talked about, how they've actually moved, how their prices have moved, and how that compares to the reference Treasury, or the benchmark Treasury, because you often hear, interest rates go up, bond prices go down, and I want folks to understand, well what actually happens.

So this is the Verizon bond that we've been talking about, Verizon 3.85 of 2042, and you'll remember that this bond does get indexed, since it's an investment grade bond, it does get indexed off its benchmark. So it will have some sensitivity to Treasuries. And what we've shown here is, we've shown

the price chart, so this is price, not yield, of the Verizon bond and the benchmark Treasury, and we've seen how these have moved over time. So this is from when we were initially recommended the Verizon bond in September of 2017, you'll see that the bond was kind of sticking around par, but when Treasuries fell at the early part of 2018, the Verizon bond was staying pretty flat. And then it kind of came down a little bit, but then when Treasuries got routed, in the latter part, so this is right around November of 2018, the Verizon bond fell a little bit, but it didn't crater like the Treasury bond fell. Then, the Verizon bond has performed extremely well. So if you look at that, over that entire period of time, the Verizon bond went up six points, while the comparable Treasury bond fell 2.4 points. And the reason for that is that during that period of time, the credit spread of the Verizon bond shrunk. So, Verizon was reporting strong earnings; the credit spread shrunk, and that enabled the bond to increase in value. So that's why there was a difference between the total return in the Verizon bond of 13% compared to the total return on the Treasury of 2%.

It's even a more stark contrast when you look at slide 19, and you look at the Albertsons bond. Remember, Albertsons is a high-yield bond. Albertsons does not move in concert with changes in Treasuries; it moves in concert to how the company's performing, and Albertsons is a really interesting story. So

if you look at the chart on the of slide 19, you'll see that the Albertsons bond was trading right around a little bit south of par. But then, Amazon announced in June of 2017, Amazon announced that it was acquiring Whole Foods; everybody thought that Albertsons and all the big grocers were going to have a really tough time, and so the bond fell all the way down to the mid-70s, which is where we saw an opportunity in the bond. You'll see that since September of 2017, yeah the Albertsons bond has gone up and down, but right after September of 2017, you'll see that that bond went up in value, the Treasury was crashing.

And so you'll see that the Treasury really has no impact whatsoever on the Verizon bond. If you look at what's happened to Albertsons over this period of time, the company has decreased leverage, so it's leveraged north of four times; it's now leveraged about 3.6 times, so the credit quality has improved; the company has improved, and that's what's the enabled the return such as this for a bond of over 30%.

Richard Carter: Great, Steve. Thank you very much. Interesting to see these charts, and that perspective of yours, seeing the corporates in relation, as I say real-time, I feel like, next to the Treasury.

We have about ten minutes left; maybe I could just ask you as we sort of begin to a draw to a close, a few final thoughts. One is, after you've done this research, you talk about any other elements that factor into your consideration before you decide to buy and sell? And secondly, you mentioned early on provocatively, challenging some of our precepts for bond lettering. Maybe you could bring that into it as well.

Steve Shaw: If we go to slide 21, what this slide shows, Richard, is it shows the distribution of investment grade corporate bond prices. And what it shows is that most bonds, this is from a bond search done back in mid-June, so you'll see that on the left side of the table, those are the price of the bonds on a dollar price. You'll see that 33% of all these bonds, so out of this nearly 1600 bonds, 33% of them are priced between par and less than 110. You then had about 26% priced between 110 and less than 125. You'll see hardly any bonds, 1.2% priced above 150. But you still had a good number of bonds that were priced below par. And our playbook is to find bonds that are priced below par that can appreciate in value, and then as the steam runs out on those bonds, just sell the bond. Because what this chart shows me is that bond prices effectively have a ceiling. Bond prices are not like stocks; stocks can go up forever. But bond prices, there's a benefit of bonds that they have coupons and they have maturity dates. That obviously helps you on the

downside, but it also limits your upside. And so, bonds can't go up forever. So what'll happen is, is that once a bond starts to appreciate significantly, we'll then start to have an idea of, OK, well can this bond continue to appreciate in value? How does it compare to other bonds that are available in the marketplace, and then where is it on this pricing scale, because if we buy a bond at 95, and this bond goes up to 125, and even a little bit higher than that, we then start to say, OK, how can we protect our gain? And it's especially important for an investment grade bond that has a low coupon, because if you hold an investment grade bond, and you get a little bit too greedy, and the value of that bond starts going down, you don't have a high coupon to offset that fall. And so, you can be a little bit more aggressive in terms of holding on to a high-yield bond that has a little bit of a higher coupon, but especially for an investment grade corporate bond that has a lower coupon, that's where you need to do everything that you can to lock in that capital appreciation and maximize your return.

Richard Carter: I think often people hear the phrase, well if you sell before maturity, then you look around, what else are you going to invest in, because everything else is going up. And I think this is where your presentation's been helpful, to say, well that can often be due to the credit spread, there's very particular reasons for that particular bond to appreciate to that higher range, right? So

then you want to take those funds and redeploy them in bonds that may not be quite so --

Steve Shaw: Right, and that's the advantage of investing in individual bonds in that you can be selective. You can find a small number of bonds to invest in that perhaps they're dropped in value because of, maybe the company announced a bad quarter, or something going on, then you can find the opportunities if you invest in individual bonds.

How this all manifests itself is our investment approach, and we compare it to traditional bond ladder on the left side. So many folks, they're familiar with bond ladders where let's say for the sake of giving you an example, you had $100,000 to invest, you would invest all that money today, and then based on the maturities of those bonds, that would determine the bond that you would select, and you would reinvest the proceeds based on that.

The challenge with that approach is that your return is capped at your yield to maturity, so if you're holding the bond to maturity, obviously, yield to maturity is the highest you're ever going to get. We also think it's somewhat of a "big bang" approach in that you're saying, all right, today's the day to make this investment, and we're going to invest a significant amount of dollars today.

What we believe can work a little bit better is to invest over time, because as we talked about before, opportunities in the corporate bond market present themselves over time. You could have changes in market interest rates; you could have changes in company performance, all these different things, and whereas if we invested all of our money today, we wouldn't be able to capitalize on those opportunities. So when we look at the chart on the left, we're looking to make an initial investment; that might be a small initial investment, and then buy bonds over time, as we see opportunities, and then sell some of those bonds once we believe we've maximized the return on those bonds, and then buy other bonds that are priced at a compelling discount. We believe that it takes some of the risk out of it, and now we're not just saying that today's the day, and it also enables us to use other criteria other than the maturity date, because when we look at bonds, we look at the whole universe of bonds, and it could be the case where, sure, we might need money in a certain year, but we'd rather find the bond that's priced at the best value that can appreciate the most, rather than lock ourselves into bonds that are priced at a significant maturity. So we believe it's a more flexible approach that can potentially help increase an investor's return.

Richard Carter: Well it sounds appealing; I have to say, at Fidelity, we're big believers in the bond ladder, and partly that's the structure that it gives, and the discipline it gives, right? I mean, it gives the discipline of, you've mentioned timing. Yes, it certainly is the big bang initially, but then over time, if you reinvest, right, you're reinvesting in a way that's sort of determined by the maturity of a bond, and not just in an ad hoc basis. So let me just challenge you again, how would you then say that your approach sounds very fair, but might lead to people trading too actively?

Steve Shaw: So when we look at active investing, and we go to slide 23, so one thing to be clear is that we're not talking about day trading. We're not talking about buying a bond today, and then in a few weeks, selling it. What we're looking to do is, we're looking to maximize the return of every bond we invest, and generally that happens over an extended period, from anywhere from say six months to several years. And when we look at bond investments, it's not as if there are thousands of opportunities there; there are a select number of investment opportunities, and so when we say active investing, we're looking to find bonds that are priced at compelling values that an increase. What we're not, if that bond goes up five or six points in a few weeks, we're not selling that bond, because like you mentioned before, there has to be something compelling to buy in place of that bond. So a lot of the discipline

relates to, OK, how has the price increased? How has the company performance been? You know, is the company performing well, or is it not doing well? And what other investment opportunities are out there? Because, if there aren't alternatives out there again that would obviously likely keep us in that bond, so long as the performance of the company is strong. So we feel that it doesn't tie us into just looking at bonds that are due in a specific year, because there can be opportunities across the market that aren't necessarily based on when a bond matures.

Richard Carter: OK, that sounds good. Why don't we just wrap it up? Any final words?

Steve Shaw: If we move on to slide 24, just a few final things. What I'd like folks to understand is that, when you hear the bond market, the bond market is treated as this monolithic asset class, but it's very different. There's the Treasury market, which is very sensitive to rates. You've got the muni market. You then have corporate bonds which have many different aspects to them. You've got investment grade corporate bonds; you've got high yield corporate bonds, so it's important for folks to understand that, the bond market isn't just one thing. It's important to look for value, and to compare, as we talked about

before, the credit spread to the bond versus where certain ratios are to get an idea of just how sensitive bonds are to changes in rates.

And it's really important to do this over time. And one of the things that I found investing in corporate bonds is that, I started small. So I made, my first bond investment was 1-CUSIP-5 bonds, and as I became more and more familiar within corporate bonds, I invested in different types of bonds, and I learned how the market works, and I think that many of the folks on the call today, maybe they've never invested in a corporate bond, but perhaps you start investing in one or two different bonds, and you really get to understand how the market works, and I think it'll really help educate you as an investor, and give you another tool in your arsenal to help your overall investment portfolio.

Richard Carter: Terrific. Well thank you, Steve, that's a really, really interesting presentation. Thank you for your hard work in preparing that, and I'm sure our audience has really gotten a lot of value here.

END OF AUDIO FILE