

TRANSCRIPT

Invesco: Bond market volatility – Identifying risk & opportunities

Jason Bloom: Thanks, everyone, for taking the time today to be with us. A lot of the conversation that we're going to work through today is reviewing the bond market volatility that we've seen this year, and the headlines will generally refer to equity market volatility and quote you the VIX, which closed at record highs. Let me say that fixed income, the bond markets were not to be outdone. If we move forward here through the slides, we're going to see that we also saw record highs in bond market volatility. And it was really breathtaking, bond markets, especially investment grade, corporate credit is maybe one of the more boring asset classes if you were to rate them by excitement level. Having in a previous life actually traded a commodities-focused book on a prop desk and traded crude oil on its way from 140 down to 40 in 2007 and '08, I feel like I've had a good taste of volatility, and it was really astonishing to see investment grade bonds down in some cases 30% depending on which niche of the market you were looking, or at least investment grade fixed income. And so, it's really been interesting to engage clients in a discussion around, where do we see opportunity.

So, let's kind of review what's been going on here, and then we'll work through a few different segments in the bond market to find where yield sits,

and where risk sits. Obviously with the efforts to flatten the curve and the lockdowns, we saw huge economic impact. The bond market, which is usually the ballast, at least investment grade bonds to equity market volatility, didn't provide that this time around. In the short-term, in the early March, we saw massive selloffs in investment grade credit as no one really knew what was going to be the net effect of shutting down the US economy to such a large extent. Declines in investment grade corporate bonds set records. Six of the largest ten selloffs in US history occurred in March. Just staggering. We didn't see this kind of selloff in investment grade credit back in 2008 and '09. So equity market volatility didn't quite reach the peaks, actually the selloff at least that we saw in '08-'09 because of the aggressive moves by the Fed and the prompt response, but we actually saw a bigger selloff in corporate credit, and municipal credit than we saw in '08-'09. So really, if it felt like a rocky ride, it really was. Obviously on March 23rd the Federal Reserve stepped in and began to sort of sequentially work its way through the markets to provide liquidity and restore functioning.

So, if we go here to the next slide, we're going to look at some of the steps that the Fed took to restore functioning to the fixed income markets and to the primary and secondary markets, really. So, they initially set up the corporate credit facility which was to restore functioning to the commercial paper

market. That's where many corporate operators are able to acquire short-term funding for working capital purposes. That market froze completely, and the Fed stepped in to essentially lend directly to businesses if they weren't able to find investors, and banks weren't willing to step in to supply liquidity in the commercial paper market. We had the Secondary Market Corporate Credit Facility, which essentially means the Fed is out there in the open market buying previously issued bonds of shorter maturities by companies. If you bring down interest rates by bidding up those corporate bonds, then you're going to further support access to bond markets for issuers of corporate debt, Main Street Lending Program, you know, targeting smaller businesses that are not publicly traded and who don't access capital through the public markets. All of these programs, hundreds of billions of dollars to which were allocated, most of that money has been spent or is in the processes of being spent, and then of course they also stepped into the asset-backed securities market, with a liquidity facility, and right there, what they're doing is they're supporting lending for car loans, mortgages, student loans; we'll see how that goes here, and things like commercial equipment leases, those types of things, and other very important part of the economy. So they really tried to work their way through the economy, especially investment grade portion of the borrowers in the market to restore functioning, and to stimulate, by keep the cost of credit very low, to stimulate the businesses of those borrowers, at least support them

and keep them from failing over that short period of time, during which the revenues were crimped so severely.

So, if we move forward here to the next slide. So, where does that leave us?

Well, generally speaking, the Fed's actions were fairly successful. Certainly, they have not been perfectly executed, and certainly there are some winners and some firms that essentially missed out. A lot of small businesses are shutting down, never to return, for sure. But the Fed, it doesn't have a perfect toolset to address these things, but there is no doubt that had they not taken the steps that they have taken, things would have been much, much, much worse. They were initially talking about the Great Depression, and that's a very plausible outcome had the Fed not stepped in to support things as aggressively as they have over the last few months. So, things have stabilized. Previously solvent companies are by-and-large solvent, at least medium- to larger-size businesses. Obviously, unemployment in the small business community is very high, and we're going to hope that that bounces back as the economies reopen. We know it'll take a long time to get back to previous levels, but nonetheless, things are a lot better than they were in mid-March. Valuations have improved significantly, so you think of some things like emerging market debt, down double digits, preferred stocks, very healthy banks down 30%, recovered most of that, even muni bonds, we're talking

about down 25%, investment grade muni bonds. Most of that has been recovered, and so the bargain basement sale tag buying opportunities don't exist at this point the way that they did in March and early April, but everyone still has money to put the work, and there are, we believe, relative value opportunities out there in the market.

So, what we're going to do is go through the different sectors of the bond market, and we're going to talk about, you know, what was the Fed buying; what hasn't the Fed bought, and where do we see opportunity today? We're back in the world of financial repression which has maybe not the best connotations always, but it is true that savers are really finding it hard to generate income in this environment because of the Fed's stimulatory activities and pushing rates lower, but there's been very unusually disparate outcomes across various investment grade sectors. So, let's move forward here. We're going to go from least amount of risk to maybe the highest level of risk, but we're going to look at munis, investment grade corporates, preferreds, and even emerging market debt.

Let's talk about munis. So, I mentioned that we had a blowout in muni spreads which means a huge selloff in the muni bonds themselves. Again, everyone saw the economy shutting down. They knew that that would massively reduce

sales tax revenues if they were muni bonds backed by some sort of infrastructure project when people stopped driving their cars or traveling through airports obviously the fees associated with that were going to drop significantly. And we had the huge selloff, and then the Fed stepped in and essentially said, look, we're going to provide short-term funding for these muni entities. Now they've sort of rejiggered or expanded the set of borrowers that are going to get help a couple times which is great over the last few weeks, as they've been tinkering and trying to get it right. But essentially, the Fed stepped into the muni market and said, we're going to make sure that investment grade borrowers have access to credit, and we're going to bridge them through, until the economy reopens over the next couple of years and make sure that people aren't going under just because of the lockdowns. Now, unfortunately most high-yield issuers aren't getting that help. I guess the Fed, you know, felt they needed to draw a line somewhere, and so they did, good or bad, it is what it is. What it means is that we've seen muni prices significantly recover. Now what's interesting is that the muni bond market, remember how earlier in the first slide we mentioned the Corporate Credit Facility and then also the Secondary Market Corporate Credit Facility? There is no Secondary Market Corporate Credit Facility in the muni universe per se, in the sense that the Fed is willing to either buy very short-term bonds or to lend for short periods to munis, but they aren't out there buying up three- to five-

year muni bonds that have already been issues, that were issued in years past, like they are in the corporate credit world. What that means, fortunately for investors, is that muni yields have not been pressed as low as they were pressed in the investment grade corporate credit market. So, you might be looking at five-year bonds, or five- or ten-year corporate bonds, investment grade bonds paying between 1.5 and 2%. You can get five- to ten-year munis paying one-and-a-half to two percent. The great thing about that is that the munis are not -- the income generated by the muni bonds is not taxable by the federal government, and in some cases, not taxable even by state governments. So when you look at taxable equivalent yields, munis, especially in that five- to ten-year part of the yield curve are paying significantly, 100 basis points or more, more yield than investment grade corporates, and you tend to get higher-quality and less risk in the muni market place. Usually you're looking at AA, AA- munis versus a single-A- corporate bond, their headline yield is very similar right now; yet the muni income is tax-free. So, we feel that because the Fed isn't buying muni bonds extensively in the secondary market, they represent an excellent value as compared to the yield you're receiving currently; that is today, and of course things have changed a lot on a monthly basis, but today muni yields look like a significant opportunity. And we have as a manger of well over \$60 billion in muni assets at Invesco, we have seen

some significantly positive flows into the muni space over the last several weeks. Investors are making that comparison and seeing that value.

Now, you did see huge flows into the corporate credit space as well. That was primarily generated by, one, the Fed liquidity support, and then second, when everybody heard, hey, the Fed's going to be out there buying up corporate bonds in the secondary market, well let's rush in there and buy them ahead of the Fed and make some money. Now Fed doesn't mind that frontrunning because, just by expressing their intent and getting a market reaction like that, the market essentially does the work for them. The Fed isn't a competitive trader in the market, and so they will tell you ahead of time what they're going to do, and you're free to try and take advantage of that. Now, when the Fed support is withdrawn at some point in the future, then people will have decisions to make. But, in the current environment, putting new money to work and holding to maturity, especially if you're buying individual bonds, we really like munis right now. Now you don't have to buy individual bonds to build a muni ladder and take advantage of these yields. There are ETFs out there and we're going to talk about them later, the bullish years being one of those where you can use an ETF to build a bond ladder that holds bonds to maturity, massive value, I think, in that if you're an individual bond buyer.

But let's move forward here to the next slide, and let's talk about investment grade corporates. We're actually going to talk a little bit about high yield too. We had to put this deck together several weeks ago, so we did the best we could, and it's still relevant, but man, on a weekly basis, you know, things move around here these days. So, it is interesting to note that it's worth talking about the risk in investment grade corporates because leading up to the pandemic, we had a lot of clients calling in and asking us whether they need to be worried about the increase in BBB issuance, right? You look at investment grade corporate bond ratings, BBB represents the lowest three rungs of the ratings ladder, BBB+, BBB, and BBB-; BBB- being the lowest of the investment grade credit ratings if you're looking at S&P or Fitch. And so, given that that universe, the BBBs had become such a large part of the corporate credit universe, people started to wonder, is this an accident waiting to happen?

Then we got the pandemic, and everyone was worried about investment-grade corporate credit overall, and defaults, and I think that it's worth putting some historical perspective around defaults in investment grade corporate bonds. I think people might be surprised to know that during the financial crisis of '08-'09, we only saw 0.42% of investment grade corporate bonds default. Now that doesn't mean that there weren't some losses around

investment grade bonds being downgraded to high yield, and if you were to sell, you might have taken some price loss there, but as far as bonds going to default in a really short period of time, even during the '08-'09 crisis, it was very rare. Excuse me, 0.42% in '08, 0.33% in '09. If you back to the 2001 and 2002 recession, which was really a little bit more of a recession in the real economy more than a liquidity crisis precipitated by a blowup in one segment, of course, you know, the tech bubble crashed, but we saw a widespread recession across the sectors of the economy in '01-'02, we actually saw a little bit more default in the investment grade corporate bond sector, if you were to look at it relative to apples-to-apples to date and then, as far as BBBs, we saw more BBB defaults in 2001, but still, investment grade bonds overall, 0.23% in '01, 0.42% in 2002. What that means is even if we were to get a default rate higher than what we saw in the last two recessions, if you have a broadly diversified portfolio of corporate bonds, it's not going to have much of an impact. You could double the default rates we saw back then, again if we were to simply double the default rate that we saw in prior recessions, it wouldn't have that big of an impact on your total return over the next couple of years, provided you were well-diversified. Now, if an investor only holds 10 or 15 bonds and they think, well this is investment grade credit, I'm okay, and you get one of those bonds gets downgraded, or a couple get downgraded, or one defaults, then you're going to have a meaningful impact on the portfolio.

So, diversification, we talk about it all the time as one of the basic building blocks of investing, it matters in equities, it matters even more in fixed income. And the reason is that, in an equity portfolio, if one stock goes to zero, another stock could double in value to offset that loss. In fixed income, it doesn't work that way. If you have a bond that yields 5% and it goes to zero, the other 5%-yielding bond in your portfolio isn't going to help. It's still going to, the best you're going to do is 5% and get that yield that was promised to you. Now the risk of default is low in investment grade corporate credit, but in times like this, it's not nonexistent. And so, when we build bond portfolios, we like to have 50 or 100 bonds in a portfolio as a professional asset manager where, as in the equity portfolio, you know, there's research out there by academics at least to say, well you theoretically can be diversified with as few as 20 stocks. And if you look at the regulatory parameters around publicly-trade mutual funds and ETFs, that 20-stock minimum is actually fairly close to what you see as far as regulations in publicly-traded portfolios. So we don't believe thought that 20 bonds provides the same level of diversification as 20 well-selected equities, and so we don't believe that corporate bonds represent a massive unperceived risk in the market, or a risk that isn't priced in the market, because of all the Fed support that is out there. But we do think that investment grade corporate bonds have been bid up by buying by the Fed and pushed yields so low that it's just not as appealing as it was a month or two ago, and it's not as

appealing as some of the yield opportunities you see in other sectors of the market where the Fed hasn't been nearly as active.

So, let's move on, and actually, before we move on sorry, and this has really emerged over I would say the last three or four weeks as an opportunity worth taking a look, high-yield corporates. So, we're six months into this. The market has had a chance to digest a lot of real data around these dynamics that have emerged through the lockdowns, and now the reopenings. And so, it's had a chance to price some real data rather than just fear-based pricing, you know, with the lack of data that we saw back in March and April. And you're looking at 5-6% yields, closer to six, even a little above, in high yield bonds. If you look at the high yield BulletShares, you're seeing some pretty impressive yield spreads over investment-grade corporate credit. And we believe that the market is pricing that risk in a rational way. And so, if you're looking for yield opportunities, well we're not going to address it at length here, we do believe that high yield, if you're not already overweight high yield, is certainly worth a look in a diversified portfolio.

Okay, let's move forward here to emerging market debt, talk about that a little bit. That's probably something that most people, if they're buying individual bonds, probably don't have in their portfolio, and if they're buying bond funds,

even then, it tends to be a little bit more towards the fringe. Emerging market debt though, much like many things in the global economy, ain't what it used to be, as some would say. If you're counting China, Brazil, many Asian nations, some people even count Taiwan as EM; we don't necessarily but depends on the index you're looking at. But you look at some countries that have become pretty developed economies, of course have become very large, have increased in sophistication and regulation, their financial markets and such. And so, EM debt, while something that was probably seen as an asset class that only professionals dabbled in, has really become something we believe makes sense as a strategic allocation, a long-term allocation in a portfolio. Now, those 12% yields we saw in March aren't available anymore. Of course, people rushed in and bought EM. Now, people would say, well why has EM bounced back so much, similar to the way US bonds markets at the Fed isn't helping them out the way the Fed and the ECB are helping out the US and Europe. And the answer is, well actually, the Fed is helping them out a little. So, the Fed did not want to see a domino effect of defaults across the global markets, and the Fed does transact directly with emerging market central banks. Now they didn't have robust lines of credit the way they did with developed market central banks in every instance, but one of the things the Fed did was they opened up lines of credit and swap lines, as they called them, denominated in US dollars, to many of the large emerging market

central banks around the world. The reason they did that was because most of the big borrowers in emerging markets borrow in dollars. And so, if the Fed can increase the bandwidth and the liquidity and the availability of US dollars, they're actually going to emerging market central banks, that is essentially going to support liquidity in the emerging markets.

Now, the other thing that's interesting about US dollar debt in the emerging markets is that the issuers of that debt are pretty sensitive economically to movements in the US dollar, because their profits are all calculated in local currency, and their equity is traded in local currencies on local exchanges. And what you find is that when the dollar rises, their debt burden rises, because it's denominated in dollars, and that hurts them, and when the dollar falls, their debt burden falls, their interest expense falls, and there's a lot of research we've done that shows that you get a significant stimulatory effect through the balance sheet of emerging market borrowers when the dollar is falling. That's a good thing, and what we've seen is that over the last several weeks, the dollar has started to soften up. Initially, it's spiked in the panic. It's been coming off, and so because, and I've told clients in previous conversations, they say, well when should I become more positive on EM debt? And they said, well if you want to take a flier and jump in now, go for it; I think things are headed in the right direction, but when you should have a

little more confidence, is when you see the dollar start to weaken. And we've seen that, you know, 3% fall in the dollar over the last month or two, and I think that traditionally, historically, that's been a good tell. That is a tailwind for EM borrowers. So US dollar-denominated EM debt from a ratings perspective, it sits right between investment grade and high yield corporate credit, and it's the debt that's rated by US rating agencies, most of those bonds are rated by US rating agencies, and so, you have some transparency there into the risk. These are companies with accounting mechanisms that are acceptable to US rating agencies, unlike maybe debt that's issued onshore in China which isn't rated by US rating agencies, and they literally don't have the accounting infrastructure to give comfort to western investors who want a rating on those bonds. These are bonds, generally, that have been rated. And so, it sounds like it comes with a lot of risk, because EM is on the name in it, and I'm not saying it's the same as buying bonds issued by European or US companies. It is EM, and the yields are higher than you get in the US and in Europe, but you know, 3.5% on a four-year bond with a credit rating that sits right around investment grade on average, is definitely worth looking at in this environment, and as I mentioned, I really like the trend lower in the dollar, and that's going to support the EM US dollar-denominated bond market. So again, where opportunity sits now is in those areas that are strengthening, but are not being purchased directly by the Fed. Anything that's being bought directly by

the Fed, treasury bonds, US corporate bonds, investment grade corporate bonds, have been pushed to levels where the yield are just really low, and for those looking for income, we really do think a diversified fund of ETF, holding a diversified basket of EM bonds that are denominated in US dollars makes a lot of sense right now.

Okay, let's move forward here. We'll go from EM debt to preferreds.

Preferreds is something that we at Invesco on the ETF side of the business have been managing for a really long time. It's a little bit of a niche asset class, but it's grown significantly since the '08-'09 financial crisis, as preferreds have become a very important means of establishing the capital structure of banks in the US, and in Europe. And so, the preferred market has grown significantly. Preferreds, in essence, are hybrid securities. They sit below fixed-rate, fixed coupon bonds in a corporate capital structure, so they sit lower in priority, if, were things to go bad. But they do sit higher than common equities. So, if you looked at the stock of a bank that trades on the exchange, the common stock, preferreds have a higher priority in the capital structure. So, preferreds pay dividends, and these days, you can get between 5 and 6% yields depending on the ETF that you're looking at in many cases, of a highly diversified basket of preferreds. Most preferreds are issued by financial institutions. Our ETFs hold US-listed financial institutions. And so, they're very

well-known, well-established firms that issue them. Now, a preferred dividend is not guaranteed. A company could, in a cash crunch, decide to cut that preferred dividend, but they can't do it before they cut the common equity dividend. So preferred dividends have to be paid before common stock dividends. And so far, we have not seen any red flags at this moment that suggest that the banks in the US are going to cut the preferred dividends. Most of them are still paying the dividends on their common stock. And so preferreds are a little riskier than investment grade bonds, but again, you look at the investment grade bond on a bank, and it may be paying 1.5-2%. You look at the preferred and it's paying 5 or 5.5. You're being well-compensated for that risk, and in our view, you're being more than well-compensated in the current environment for that risk. Why is that? Fed's not buying preferreds; they're buying the bonds of that bank in the market, and they pushed it lower, the yields lower.

So, we like preferreds. They're a very important part of the capital structure of banks since the Dodd-Frank regulations came in after the '08-'09 crisis, and we don't see any risk that the banks are going to suddenly ditch preferreds. There are a couple different categories of preferreds. There's \$25 par, they're \$1000 par. The \$1000 par market tends to be dominated by institutions; \$25 par market tends to be more heavily traded by individuals. But either way, we

have ETFs that suit both, as do many providers or blend those markets, and if you're more interested in preferreds, you've got a lot of resources, both with your advisors at Fidelity or with a fund sponsor. I don't think preferreds are something that a lot of people are really familiar with the way they are with traditional bonds and stocks, but we think they add significant value, both over the long term, but especially in this unusual environment that we find ourselves in today.

And then let's move forward. That's preferreds in a nutshell. And I like this slide; I think it's just a little bit helpful to see where are we right now, from a visual standpoint, and if you look going from the lower green dots through the dark blue, purple, you've got a pink and an orange in there, and then we go up to the lighter blue, if you start at the bottom, the green dots, as you move from the bottom higher, you're going up in risk, and of course, you're going up in yield. And then as you move from the left to the right, you're going further out in maturities. So, you've got 2021 bonds in there. Then you move to the right, you get all the way out to '29, and even a little bit further.

But what this shows you is that the yields in corporates have been pressed down almost equal to the yields in munis, even though munis pay interest in many cases that is not taxable. The purple line represents the taxable

equivalent yield of those green dot muni maturities. And what it shows you there visually is what I spoke of earlier, and that is that right now if you're a taxable investor you're getting significantly more yield out of munis than you are out of corporates, and you're getting a higher credit rating at the same time. That is an anomaly that's not usually easy to find, but it is right now because of, I guess, the uneven impact of the Fed's activities in the markets.

That dot in the middle, I guess you call it purple that represents the yield on preferreds on a broadly diversified portfolio of preferreds. You can see they're between 5 and 6%. And now the duration there, or in other words, the sensitivity to movements in interest rates, sits kind of right in the middle of the ten-year yield curve right there, just around five years right now. Now the duration of preferreds can move if you get a violent move in interest rates. Nobody's expecting a violent move in interest rates over the next couple of years, so we think that preferreds just represent a really exceptional yield opportunity in the current environment relative to investment grade credit. If you go out there to the orange dot on the far right, you're getting even a little bit more yield closer to six percent. That is US-dollar-denominated sovereign debt issued by emerging market countries, so that's sovereign debt, which tends to be a little less risky than emerging market corporate debt, so we spoke about that earlier, and then the blue dots at the top, that's US corporate

high yield. The Fed isn't buying high yield bonds. They may be dipping their toe in, but they primarily are not buying, they largely are not buying high yield bonds in the market, and so that gives you significantly higher yield opportunities. Now of course, the default risk is higher. Our capital markets assumptions at Invesco are that we may see high yield, the whole high yield universe move from 2.5% default rate up to a 10% default rate. Even if we were to experience a 10% default rate, you should significantly outperform investment grade bonds in a diversified high yield portfolio. So again, it's a bit of a distortion created by the Fed's uneven participation in the bond markets right now. So, that's just a nice sort of visual picture of risk and return.

Okay, we can move forward to the next slide here. So, the last thing we're going to kind of talk about is flows; essentially, and this is going to be a nice, I think, transition to Eric's discussion around the benefits of ETFs. A lot of people, especially people looking at fixed income ETFs for the first time, still kind of getting up the learning curve, we saw massive outflows from fixed income funds. Now we saw big outflows in mutual funds, and in ETFs, but as you can see there, the outflows in the ETFs in those lighter colored bars were far, far, far less than the outflows we saw in mutual funds. And now the ETF universe isn't quite as big as the mutual fund universe, but still on a relative percentage basis, those outflows are far less. Why is that? It has to do with

the fact that ETF shares can be created or redeemed just like you can buy or redeem mutual fund shares. But ETF shares can also simply be traded from one investor to another on a stock exchange. So, if you own a share in a mutual fund structure, if you want your money back, you can't sell those mutual fund shares to someone else. You have to sell them back to the issuer. The issuer then will sell bonds in their portfolio to raise cash if they need to, and then they'll give you cash back. Now ETF shares, if you want to get rid of that, those shares, you go, and you sell them on the exchange. Now that gives another buyer who wants to buy at that time an opportunity to simply buy them from you, and the shares never have to go back to the ETF to raise cash to meet your redemption. And conversely, they're not going to get cash coming in from the buyer, the person who bought those ETF shares from you. The whole idea here is that the exchange-traded nature of ETFs provides a whole 'nother plane of liquidity for the shares in that fund. And so, while the net balance was outflows, it was far less than it would have been had everyone who owned ETFs wanted to get out. And so that's kind of that creation redemption feature is really critical to, I think, the success of ETFs, the efficiency of ETFs, not only are they tax efficient, but in this case, you have additional avenues of liquidity in a time of crisis that mutual funds simply don't have.

And so with that, I'm going to hand it over to Eric, and we're going to talk a little bit more about ETFs as a way to access fixed income.

Eric Olson: Thank you, Jason. Let me turn on my camera here. Great stuff, obviously, Jason. Thank you as always. I took down some notes that I found interesting. The Fed showing its hand pushing the price of bonds higher, diversification matters more in bonds than it does in stocks. The opportunity in high yield as well, so a lot of great stuff. We're going to launch into the Fidelity website to do a demonstration.

I'm going to actually switch gears here and call an audible. I do want to see PCY; you sparked some interest in emerging market debt, and as well, the tax equivalent yields of munis is actually higher than corporate bonds. So those were really two topics that I wanted to focus on. Let me go ahead and share my screen, Fidelity's website. Okay, great. So, many of you are already familiar; this is the landing page of Fidelity's website, and in the case that we had today, we're going to just use some ticker symbols that came up in the presentation. These are obviously not recommendations, so this is more for educational purposes on how to use our website. So, I'm first going to type in PCY; this is PowerShares Invesco Emerging Market ETF, and it was brought up just towards the tail end of that presentation. If you ever see this "Upgrade

Now" button, I would recommend you click it. This is our classic old view which we're sunsetting out. We're going to be using this enhanced version moving forward, so we might as well get comfortable with it now. But this gives you pretty much everything you need to know about an ETF and gives you key quote information, the last trade, highest bid, lowest ask somebody's willing to sell it for. This is what Jason was talking about, the 30-day yield, 4.82. The 12-month trailing yield is 5.5%, so maybe there was a lot of rush-in to emerging market debt that caused that to drop a little bit. On the right-hand side we see news and commentary, over 30 independent news providers. Any time this ticker PCY is mentioned in one of these 30 independent news providers, it's going to fill into this newsfeed. I think it's a great way to keep your finger on the pulse of a security, and this includes stocks as well. We have in the middle there... analyst ratings, third-party analyst ratings and their reports.

By the way, in my opinion, if I want just a clear, just basic understanding of a profile of fund, rather than looking at a prospectus that's published by the fund, nothing against it, but these reports by the third parties, they put it in a little bit more understanding terminology. So, know that you have access to those. In the middle here we have the profile of the fund, how did it perform from a total return perspective, so assuming we reinvested the income in

capital gain distributions. A one-year daily chart, I can customize this if I'd like to and add in technical indicators or even compare it to other ETFs or indexes. Similar ETFs; we'll come back to this in a moment. Top holdings, not a lot to go over in terms of market cap because there is no market cap, or sector in industry, because we're looking at bonds.

I do want to point out, many times I get questions by investors, how do I know if this bond pays out -- ETFs, if it's a stock ETF, some stocks ETFs pay out certain quarters. But bond funds, you know, most of these bond funds typically pay out monthly. If I come to distributions and expenses, I can get a schedule of the past distributions, and you can see clearly that this fund has been paying out a monthly dividend income. So that's where you can go to understand, does this pay monthly? Does it pay quarterly? We're going to come back to the snapshot of the ETF.

Now, this Compare tool is one of my favorite tools on the dashboard because if I'm given a ticker symbol, I can immediately like I just did put it in the upper-right hand corner and start doing my due diligence, look under the hood, but also compare it to other ETFs that might meet the same kind of criteria as what I'm looking for. And I can get very detailed and precise when I'm comparing ETFs to one another. And one of the things I look at is best practices with ETFs

or any kind of trading instruments. Jason mentioned, you know, you can -- when you buy an ETF, you can simply just sell it on an exchange. Well, when selling an ETF, there's a bid and an ask just like a stock, and a lot of that is driven off of liquidity and volume, so when I'm looking at this page, I'm looking at volume as of today, and these two funds, you know, are both over a million. I only have \$126,000 here; this one's over a million; this one's 123. Maybe I just take out some of these outliers, right, from my view, so I can focus in on the funds that I might be comparing apples to apples.

And another thing I like to do with manipulating this tool is maximize my real estate space. So, I can come in here and I can look at long-term performance and facts, and risk, as far back as ten years. If I have a little dash right here, that means that fund was not in operation ten years ago; there's no data to collect. So, I'm going to go ahead and delete this. So now I'm left with two of these funds that are pretty close to one another in terms of what they're trying to accomplish. I'm going to go back to basic facts and performance, and I want to point out this efficiency metric. Any time you get to a part on Fidelity's website where you don't understand that term, we give you quick little links that will pop up if you click on it and tell you in basic terms, what does that mean? Efficiency quantifies how well an exchange traded product outperforms its stated benchmark as a measure of excess profit or loss. So, it's

essentially, the higher the efficiency, the better it illustrates the fund manager's aptitude of including higher-returning securities in the portfolio. So, I want a higher number there in that category, but I like to add in criteria and remove criteria that may seem redundant, that I don't need. Like schedule 1, I know the legal structure; both are the same. So, I'm just going to get rid of some of these criteria, and I'm going to add in criteria that matters to me. Well if I'm looking for a bond fund, as Jason talked about multiple times in his presentation, yield's a big part of that. So, I'm adding in a 30-day and an annualized yield, and they are going to fill in here at the bottom 5.35 versus 4.5 for the Invesco fund, 4.82 versus 4.65. So, I'm going to hold onto these two choices and add them to my watch list. I can create up to 15 different watch lists, include up to 50 different securities in these watch lists. And let's go ahead and shift gears a little bit.

I was going to go over Invesco's, or in general, just the investment grade opportunity, but after hearing Jason talk about munis and how munis after tax, if you're taking a taxable equivalent yield outperform investment grade bonds, I found that interesting. Let's see if we can find those bond funds and specifically create a ladder using bullet shares to do so. So, if I go to news and research and I go to ETFs, I'm going to launch our ETF screener. I'm going to say, I want to look for a maturity objective. That's exactly what BulletShares or

iShare iBonds do; those are the two major players when it comes to defined maturity. So, I'm going to select maturity objective; I'm going to select debt issuer objective. The geography's going to be domestic, and I want asset class to be fixed income. Let's see what happens, if I hit "Apply Criteria," "Defined Maturity." I'm going to go Municipal. It might become redundant at this point. I might be left with -- yup, so I'm down to 18. To be consistent, you know, it's nice to have same benchmark index if I'm going to use this approach to create a ladder. Again, why am I doing this? Why am I giving you this illustration? Many of you that are on this webcast probably create your own fixed income ladder. So, a CD, municipal bonds, these products, defined maturity ETFs, make building bond ladders easy. An investor, you could build a five-year ladder consisting of five defined maturity bond ETFs. You can collect monthly cash flow and know exactly how much in principal you're going to get back at the end of the ladder. And by creating the ladder to keep it going into perpetuity, you would be taking the proceeds from the maturing principal to buy new bonds that continue extending the ladder out.

So just a quick example, we could go ahead and come down here and say, I want to create a six-year bond ladder using munis; I'll start with BSML.

Twenty-two, '23, '24, and '25, add those to my watchlist. I could then actually create a multi trade ticket, and I could put a ticket in to buy all three, five of

these ETFs all at once, or I could buy them individually. Of course, it's up to you how you want to execute that. But instead of you trying to go into, I mean we have a fantastic bond offering at Fidelity that a lot of people don't know about. We use over 75 different dealers where you can go in and pick out a bond portfolio yourself. By the way, many of these ETF structures, even though they're passive in nature, they have criteria where if the bond falls below a certain credit rating, they'll replace it with another bond to make sure it's still fulfilling its objective and criteria.

I hope truly this has been a useful experience in terms of showing you rather quickly and rapidly going through some of the tools on Fidelity.com. I do want to make sure I give you one last topic, and this is one of my favorite parts of the website, is our Learning Center. I've been in the industry for 15 years, but 10 of those years were with Merrill Lynch, so I was comfortable using their tools, but when you use Fidelity's website, and even if you have experience in the industry, or you've been trading or investing for some time, this Learning Center is great. I personally learned on this heavily when I was being onboarded as a regional brokerage consultant, so I want to make sure you know about it. I could come in here, many of you are probably familiar with it by just enrolling in today's events; that's where you see upcoming events. But I can peruse for topics today, like ETFs and ETPs, if they're new to you, get

educational content on how to compare mutual funds and ETFs. But this is where we consolidate all of our educational content. As you can see, there's different categories. I can go into the ETFs and ETPs, and here we have a series of articles, webinars, videos that answer a majority of your questions that you might have following today's session. And if they don't reach out to your local branch where they can set up time to meet with someone like myself in your area. And if this is all great ideas, you like these concepts, but you just don't want to manage it on your own, know that you have financial consultants in your area that can sit down with you and help put together a plan.

END OF AUDIO FILE

Past performance is no guarantee of future results

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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. Unlike individual bonds, most bond funds do not have a maturity date, so holding them until maturity to avoid losses caused by price volatility is not possible. Any fixed income security sold or redeemed prior to maturity may be subject to loss.

High-yield/non-investment-grade bonds involve greater price volatility and risk of default than investment-grade bonds.

The municipal market can be affected by adverse tax, legislative, or political changes, and by the financial condition of the issuers of municipal securities.

Preferred securities are subject to interest rate risk. (As interest rates rise, preferred securities prices usually fall, and vice versa. This effect is usually more pronounced for longer-term securities.) Preferred securities also have credit and default risks for both issuers and counterparties, liquidity risk, and, if callable, call risk. Dividend or interest payments on preferred securities may be variable, be suspended or deferred by the issuer at any time, and missed or deferred payments may not be paid at a future date. If payments are suspended or deferred by the issuer, the deferred income may still be taxable. See your tax advisor for more details. Most preferred securities have call features that allow the issuer to redeem the securities at its discretion on specified dates, as well as upon the occurrence of certain events. Other early redemption provisions may exist, which could affect yield. Certain preferred securities are convertible into common stock of the issuer; therefore, their market prices can be sensitive to changes in the value of the issuer's common stock. Some preferred securities are perpetual, meaning they have no stated maturity date. In the case of preferred securities with a stated maturity date, the issuer may, under certain circumstances, extend this date at its discretion. Extension of maturity date will delay final repayment on the securities. Before investing, please read the prospectus, which may be located on the SEC's EDGAR system, to understand the terms, conditions, and specific features of the security. Exchange-traded products (ETPs) are subject to market volatility and the risks of their underlying securities, which may include the risks associated with investing in smaller companies, foreign securities, commodities, and fixed income investments. Foreign securities are subject to interest rate, currency exchange rate, economic, and political risks, all of which are magnified in emerging markets. ETPs that target a small universe of securities, such as a specific region or market sector, are generally subject to greater market volatility, as well as to the specific risks associated with that sector, region, or other focus.

ETPs that use derivatives, leverage, or complex investment strategies are subject to additional risks. The return of an index ETP is usually different from that of the index it tracks because of fees, expenses, and tracking error. An ETP may trade at a premium or discount to its net asset value (NAV) (or indicative value in the case of exchange-traded notes). The degree of liquidity can vary significantly from one ETP to another and losses may be magnified if no liquid market exists for the ETP's shares when attempting to sell them. Each ETP has a unique risk profile, detailed in its prospectus, offering circular, or similar material, which should be considered carefully when making investment decisions.

Foreign investments involve greater risks than U.S. investments, including political and economic risks and the risk of currency fluctuations, all of which may be magnified in emerging markets.

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.

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