Look Ahead 2022 Webcast

Transcript from January 10, 2022

Massy Williams: Hello, I'm Massy Williams, and you are watching a replay of our recent webcast, "A Look Ahead to 2022 with Vanguard." We hope you enjoy it.

Massy Williams: Greetings everyone. Happy New Year, and welcome to this live Vanguard webcast. My name is Massy Williams, Head of Strategic Operations within the Financial Advisor Services Division. It is my pleasure to be with all of you tonight, and I hope that you and your loved ones had a great holiday season.

As we enter 2022 with a backdrop of low bond yields, with comments made of gradual removal of policy support, stretched valuation in many markets, and the uncertain impact of COVID-19 variants, many of you are wondering how to navigate this environment. Here's the good news for you.

At Vanguard we do expect for global economic recovery to continue in 2022. Our long-term outlook for assets, yes, it's guarded but still positive. And we believe that rising rates are likely to signal stronger asset return over the medium and long term as economic fundamentals, including growth and inflation, return to more normal levels.

Now, let me strike a bit of a balance here and acknowledge that with the COVID-19 pandemic remaining a critical factor in 2022, the shape of a recovery will be impacted not only by the pandemic itself but also on our policymaker removing support and stimulus packages that we put in place to combat the pandemic-driven downturn.

But as the need for continued policy support wanes, it will mean that some of the uncertainty ahead of us are fitting as well. In a minute, I will have the pleasure to be talking to Vanguard's CEO, Tim Buckley; our Chief Investment Officer, Greg Davis; and our Global Head of Fixed Income, Sara Devereux. And together we will address many of your questions. By the way, thank you so much for submitting them. I have them here, so we'll get to many of them.

Our goal today is really three-fold. One, we want to tune out the noise. There is way too much out there. Secondly, we want to ground you in the facts. And then finally, we want to provide you time-tested strategies that deal with these uncertainties.

All right, like I said, we heard many questions from you; but I know you will be fully engaged in the session today. So if at any time you want us to clarify anything, please use your "Ask a Question" box that you have on the left of your screen to ask us any question. We would truly appreciate that.

Now before we get started, a few housekeeping notes for you. There are two icons on your screen. The blue one is for any technical help that you will need from us tonight, and then you will have another green one on your screen. Please click on that if you want any additional information on the topics that we will be addressing tonight or if you want to have access to our economic and market outlook paper titled, "Striking a Balance," and we will address that in a moment.

All right, with that, let me turn to our guests: Tim. Greg, Sara. Welcome, Happy New Year.

Tim Buckley: Happy New Year.

Sara Devereux: Great to be here.

Tim Buckley: Great to be here, and Happy New Year to all our clients.

Massy Williams: So great to see all of you.

Tim Buckley: And Massy, look, with your opening, I'm not sure we can add much value to it; so you kind of nailed down the opening. We'll see what we can do.

Massy Williams: Well, you will just deep dive into everything I just said, right?

Sara Devereux: Sounds good.

Massy Williams: All right, we are in great company here. So now we're going to go to you, Tim, so that you can really ground us for this conversation. We have received thousands of questions, and many of them are about navigating this current environment.

Janice from New Jersey – hello Janice; I hope you had a great start of a year – is asking us, "Will Vanguard shareholders be able to rest assured the way we have been in the past?" So what's your answer to that?

Tim Buckley: Well, Massy, like first, I think Janice captured, as you said, the feelings of so many. But sitting with you and my colleagues here, I don't think any of us have ever been able to rest assured about where the markets will go in the future, fair enough.

Janice should think about, like investing is about embracing uncertainty. You've got to realize uncertainty is going to be there. We face risks all the time. Some of them are familiar. Greg, I think about high equity valuations. I don't know how many times I've talked about those. Some are less certain. Think about the past of Omicron. Some have what you think is an established playbook, Sara, like inflation; right, you think, okay, there's a playbook there. There are other risks that, you know, we talk about them, but they never seem to materialize. The high level of U.S. government debt. So there's so many risks that you face each and every year, it's almost impossible to figure out where the market in that given year will go.

You might be able to figure it out in a vacuum. So in a vacuum you could take one variable and figure out how's it going to influence the market. But figuring out all of them? It really, close to impossible. Definitely a fool's errand to try to do it.

So we always start with asset allocation. Right, stick to your asset allocation. I've got some bond friends to the right of me, and we know a lot of our questions are all about, "Am I going to lose money in bonds?" Well don't abandon bonds just because rates are going up. They're your airbag. Again, they're your airbag for when the equity markets crash. And speaking of equity, and I'm not saying that they will this year, but they have a tendency to do that at times.

But speaking of equity markets, I know Greg's probably going to talk about your different returns you'll get from different markets, and don't try to get too cute and time that. Like just own them all because we have really, I've done this for ten years; and I don't want you to hold us to our predictions by the U.S. versus international growth versus value. But if you look at all the markets, we've been very accurate about what you should expect in your returns. So hold all of those markets.

And then the other aspect, we always talk about this, right, is there are certainties in investing; but they're very rare. There's like two of them I can think of. One is if you have high cost, they're coming out of your returns. So keep your costs low. Right, that's one element you can control. The second thing is you'll never regret saving more. We always tell clients that, "Just save more." If you're worried about the future, save a little bit more. Spend a little less because if you have a bear market, you'll be glad you did it. If you have a bull market, you'll be pretty happy.

Massy, you hit another one we always tell people. Like tune out the noise. Tune out that noise that you're going to hear in the marketplace. If you hear the pundits talking about, Sara, you hear them all the time, right? Well let me tell you the portfolio for inflation environment or for rising rates. Like everyone has the perfect portfolio looking back. Here's the portfolio you should have held in the early '80s or here's the portfolio you should have held when rates were rising up prepandemic. Like everyone can figure that out, but we don't know what that future will hold. So as we look forward, treat that future with humility, and do those things that we talked about, about keeping your portfolio diversified, controlling your costs.

Let me add one more element here. Like these things are all themes we'll dive deeper into as we talk this evening. They are more predictable. It's predictable that we're going to say these things if you have tuned in before. In fact, my sister watches every year with her family. Hi, Cath. She watches every year with her family, and she says we're so predictable – they love hearing it. They love hearing the long-term strategies that they've come up with a game of Bingo for all the different terms that we'll use. I think I've used diversify a few times now, so everyone's got that part of the sheet covered.

But for us, hey, you know what, we could sit here tonight and have a really fun conversation and talk about speculative strategies; and it would be entertaining. But for us, it's a lot more rewarding to talk about how to get people to a comfortable retirement, to a better retirement than they would otherwise. That's why you're going to hear much more around the typical Vanguard philosophy and why this is the perfect time for it.

Massy Williams: Yes, and thank you, Tim. And it may be predictable, but I feel like those are the time-tested investment principles that we have out there.

Tim Buckley: Time-tested for sure. I've seen them for 30 years.

Massy Williams: Absolutely, so thank you for that. And we will actually try to see what's top of mind now for a viewer live with us. So you will have your first poll questions. You should see that on your screen, and if at any time you need to use the closed caption, you can also see that at the bottom of your screen. So don't forget to click on that.

But here's your first poll question. What investment topic is top of mind for you as you enter 2022? Is it the economic impact of COVID-19? Is it equity evaluation? In other words, do you think that stocks are priced too high? Geopolitical concern, inflation, interest rates? Well, let us know. I am monitoring your answers live right now, and I see a lot of it coming in. So I'll be back in a moment to tell you all your answers and discuss a bit with our panelists here.

But in the meantime, I'm going to come back to the questions that were presubmitted; and Greg, I'm going to go to you next because we received a lot of questions around-

Tim Buckley: Massy, this is unfair because we don't see the answers that you see popping up on your screen.

Massy Williams: I'm seeing that.

Tim Buckley: Greg has no idea what people are concerned about.

Massy Williams: Well, you know, right now, wait, I will hold up on that. I'll let you know. You will have to hold up. I get to be the only one to see it for now.

But we do have a lot of questions that were presubmitted around macroeconomic trends, so I really want to address Arlene's question. Arlene from Texas is asking, "What are our perspectives on the global economy, and how do we think those trends are actually going to impact the markets?"

Greg Davis: Well thanks for that question. I mean there's a number of things. First and foremost is really this aspect of we've been in an environment where there's been a tremendous amount of fiscal as well as monetary policy support in the marketplace, and that's really had an impact in terms of getting the economy running again while we're going through the midst of just a tremendous pandemic.

But what we're expecting as that policy's starting to get normalized over time, what we're expecting is more moderate economic growth, both in the U.S. as well as Europe where we're expecting about 4% or so in terms of economic growth. Even places like China that have historically had gangbuster type economic growth, we're expecting growth to slow down there as well to around 5% or so.

And then when we think about the higher levels of inflation that we've already seen because of supply chain disruptions and things of that nature, we are expecting that to start to moderate over the course of the next couple years. So when you think about our views that, again, we're not expecting the type of inflationary environment that we saw in the '70s where inflation was rising in double-digit rates. That's just not in the cards and not what we're forecasting.

Now, if we were to translate that in terms of what that means from a broad asset class return perspective, the first place that you have to start is really with valuations. And so when you look at where the equity market is today, valuations in U.S. equity markets do look stretched to us. They're at the highest levels we've seen since the dot.com era of the early and late '90s.

And so those types of things are, again, going to drive returns and our return expectations for the next decade or so. So when we look at U.S. markets, we're thinking that over the next ten years or so, that investors should expect 2 to 4%, somewhere in that type of range as our base case for equity market, U.S. equity market returns per year for the next decade or so.

Again, if you look at 2021 where we had a return in the S&P of close to 28%, you know, again, those are not sustainable returns. We were very fortunate in terms of what the equity markets have produced, not just last year, but the last decade. So it's very unlikely that we're going to see the same type of returns going forward.

And then if you take into consideration where we are from a fixed income perspective, we are starting to see the market pricing and the Federal Reserve is going to become more active, and they're going to start increasing interest rates. And so our return expectations for fixed income is ratcheted up a small amount, but we're expecting somewhere in the range of 1-1/2 to 2-1/2% over the next decade for the broad-based fixed income category as well. But thank you for the question.

Massy Williams: All right. Yes, thank you. And I feel like we also are seeing that policymakers are going to have to have a very delicate balance between, on one hand, supporting the economic growth environment that we have. And then on the other hand, we have to also look at inflation risk and what that means for market and financial stability. So a lot to consider there.

You said something about bond. I want to come back to that, but before that, I'm going to let you guys guess what do you think is the top topic that got the most rating here? It's an "i" word.

Tim Buckley: Inflation.

Greg Davis: Inflation.

Sara Devereux: Inflation.

Massy Williams: Inflation. You got it. So with about, close to 38%, we have inflation. We have about 13% for interest rate, 28% equity valuation, 11% economic impact of COVID-19, and then the lowest score that we got, but still close to 10% was geopolitical concerns.

So inflation top topic, followed by equity valuation. Any surprises there for any of you?

Tim Buckley: I think they're probably some of our top concerns out there right in the marketplace. And, Sara, I know your team's always talking about inflation. And, Greg, kind of as we look towards, you just talked about the downside of high valuations is people have to temper their return expectations.

And, again, it comes back to, "Hey, save more." Like because we may be wrong, but you'll be thrilled if we're wrong. If we're right about those low expectations, you will want to save more.

Greg Davis: That's right.

Massy Williams: Yes. I think I heard you, Greg, say something about bond volatility in the short term as we see like rising interest rates; and there was a lot of question around that. Sara, let me go to you with Richard's question. So Richard from Nebraska is wondering what to expect over the next few years based on the most recent Fed announcement to raise the rates. And I think we also can say that for many other countries where we have had like central bank come out and say that we were actually going to pull back a bit. So can you comment on that?

Tim Buckley: And, Massy, I'm going to jump in, I think you said we have a thousand. Probably about 7,000 questions, of which probably 6,000 had to do with losing money in bonds.

Massy Williams: With losing money on bonds, so Sara is in the right seat. That's why I had her closer to me.

Tim Buckley: That's why I'm way back here, right?

Sara Devereux: Well, it's a great question. Thank you for your question. Well I would say, Massy, as Greg mentioned, rising rates as policy normalizes, the central bank's starting to raise rates, is likely to result in some short-term volatility. Now, the good news is higher rates implies higher future returns. And as Greg mentioned, our fixed income outlook for the next decade has been ticking higher. It's now in the range of, returns in the range of 1-1/2 to 2-1/2%, which is higher than we thought last year.

When we look outside the U.S., you know, expected returns are going to be a little bit lower than the U.S. Now, that being said, we do find value in buying hedged global bonds because there's a diversification benefit. It helps insulate against results and risks that are specific to the U.S.

If I look at another sector of corporate credit, for example, U.S. investment grade bonds are expected to outperform Treasuries over the long term. But we would say that given where valuations are, the return that you get for taking on that excess credit risk has been chipped away. So still expected to outperform but less so than it has in the past. And then finally, I'll touch on munis. Muni rates we also expect to be going higher, largely tracking online with Treasury rates.

Now for a muni investor, this can actually be really good news because in the future this gives them potential for more tax-exempt income. So I think overall I would probably summarize it by saying, "Yes, returns are still expected to be low in fixed income markets, but if we learned one thing during the COVID-19 crisis in the market, it's that power of bonds as insulation when the equity market is selling off.

Massy Williams: Yes, thank you, Sara. And you don't really add bond to your portfolio to get higher return anyway. Right, like you're putting it there because it can serve as a ballast.

Sara Devereux: Exactly.

Massy Williams: And then for diversification, effect of that is so significant that it's important for people to think about it in an overall portfolio and what that means for them.

We actually got a follow-up question that came in from Charles that I believe will ground everybody who just heard you talking right now on like so what does that mean for me? What do I do with my strategy?

How are we adjusting bond strategy during increasing interest rates? Should they panic and get out of bond? What do I do?

Sara Devereux: You know, I mean our view is that bonds, rates can move gradually higher. We don't foresee a large sudden correction like many people have talked about in the past, for instance, during the taper tantrum. I don't want to get too technical or specific, but we don't foresee that in the near horizon.

And, frankly, over a long period of time, as rates are going higher, if you have a long horizon, you're able to reinvest at higher rates over time. Hence, that's why our 10-year outlook for rates is higher than it was last year in the 1-1/2 to 2-1/2% range.

Tim Buckley: Massy, I'd like to throw some perspective in here a little bit too that often investors are just looking out one year; and they shouldn't be thinking about, they should be like what should I do differently today for 10 to 20 years from now? And, Sara, that's what you're talking about. You don't react just because you want to be a winner in the next year. You may be a winner, but you'll be a loser long term because you're going to get out of the market, and you won't know how to get back in. So I think your advice is right on the nose.

Massy Williams: Absolutely. And you mentioned earlier, Tim, as you were talking that asset allocation still remains a significant portion of what your return is going to look like. So if your asset allocation and your investment objectives haven't changed, you should not be making those changes because there is movement, short-term movement in the market.

So, Greg, I'm coming back to you. Tim, you are not off the hook yet, but we have a lot of questions for Greg and Sara coming through; so I want to make sure we're addressing them. We have several questions that came in, actually, for you around what do we do when it comes to inflation; and how do we make sure that we are protecting ourself?

John from New York is asking, "Whether now is a good time to invest in inflation-protected security or short-term bonds?"

Greg Davis: Well thanks for the question, John. It's definitely a very timely question, especially in an environment where we've seen inflation ramping up; and the last inflation print was close to 7%. So clearly it's creating a lot of headlines and a lot of concerns for investors, consumers, and the like.

And so when we think about it, we think about, again, not on a one-year basis of what's happening in the near term, we try to think about it more from a longer-term perspective; and our long-term view is we will go back to an environment where inflation will be in that 1-1/2 to 2-1/2% type range.

And if you were to look at what the market is pricing in today by looking at breakeven inflation or what we'd say, looking at inflation-protected securities, relative to noninflation-protected securities, the market is pricing in 2-1/2% inflation for the next decade. Again, that's pretty much in our wheelhouse of what we're expecting as well.

Now in terms of the question around whether or not Treasury, inflation-protected securities are a good investment or short-term bonds are a good investment, the thing you have to keep in mind is that Treasury inflation-protected securities are good at guarding against unexpected changes in inflation. So to the extent the market is already pricing in 2-1/2% inflation, you're not better off or worse off by investing in Treasury inflation-protected securities, relative to nominal bonds. But if inflation were to come in drastically greater than that number over the next ten years, you would have been better off invested in those inflation-protected securities. So it really depends on what happens in the marketplace, not what's already priced in because that's already reflected in securities prices going forward.

Massy Williams: Thank you, Greg. And actually, it's funny that you just went there because the next question I had for you from Matthew was exactly that. What is our view of TIPS versus regular bonds? So, Matthew, I hope you got your answer right there.

Tim, talking about well-diversified portfolio and discipline approach, we are hearing a lot of buzz around crypto and meme stocks.

Tim Buckley: Oh, definitely part of a diversified portfolio, right?

Massy Williams: I'm sure this is the first time you're hearing about that. And throughout this, I know you heard about crypto; but if you don't know what we mean by meme stock, think about it in the context of your transitional asset classes. So stock and bonds, those prices are actually based on fundamentals. When you think about meme stocks, it's really based on speculation and largely on your popularity on social media.

So coming back to the questions that we received on that. So Nick from Pennsylvania, hi Nick, has a question for you. "Meme culture is having a growing effect on investments. Do you see this as a growing problem or should investors put this in perspective of an overall portfolio?"

Tim Buckley: Well, Massy, look, I have this gray hair for a reason. I've been doing this for a while. So if Nick will humor me and the rest of our clients, I'll share a few lessons over 30 some years doing this.

One, I think the two of you will agree. Massy, you'll agree too that markets are extremely efficient. Whatever you know, whatever you hear about a company, it's almost instantaneously right in that share price. Everything that's known about a company, if it's public, it's right into that share price.

Now we always think of that in terms of facts and figures, but that also includes sentiment, emotion, hysteria. That can be built into the share price too. So you can have periods where the valuations don't really tie tightly to the fundamentals. They're irrational so to speak. And we remember periods like this. You mentioned the dot.com period and meme stocks of the past two years. And you could say that the pandemic darlings, I won't go off, but you can think about working out at home and everyone who did well with that.

So all of those things are times where you say, "Wow, these things have really pushed up in valuation." And it's dislocated. "What should I do about it?" Well, I'd tell Nick, "Don't do anything about it." A very wise economist, both Caines and Schilling have been quoted as saying, "Markets can remain irrational longer than you can remain solvent." In other words, good luck with the bet. You're going to probably run out of money before you can actually cash out on that bet.

So don't bet against these trends. So what do you do? You ignore them. So my advice, Nick, would just, like look, ignore what you see going in the marketplace. And if you have a portfolio of Vanguard, it's probably index funds. A lot of index funds, maybe some active fixed income, maybe a couple of our active funds. Just keep investing and let it compound over time. I think you guys would say the same thing, and tune out the meme stock noise and think about it in terms of entertainment.

In my years doing this, I've yet to meet the person- Massy, you talk about speculation. I've yet to meet the person who year after year, I'll even give you every other year or every third year, is right enough with speculation to build a long-term retirement portfolio. You guys would say the same?

Greg Davis: Agree.

Tim Buckley: So, look, let me come back to one thing because you did mention crypto because a lot of questions that came in had to do with is crypto overvalued? And I won't go through the different cryptocurrencies, but I think we can't tell you if they're overvalued or not.

A company has underlying earnings, so you know how much you're paying for forward earnings and whether that's reasonable if you look at historical rates or where you think earnings will go. But crypto doesn't have that. It's simply a supply/demand marketplace. And as long as demand kind of increasingly exceeds supply, you'll get a nice return. Fair enough? But you're depending on that. Like you're not depending on earnings increasing, just demand exceeds supply.

But other things can change in there. You can have regulation come in, and that's starting to heat up. You can have the 10% worried about geopolitical tensions. Was it 38% worried about inflation. The inflation outlook, all these things will change the price of your cryptocurrency. And so when you have that, it's a very volatile ride.

I read the other day that the most successful ETF launch ever was actually a bitcoin ETF. The worst performance year ever by an ETF was that same ETF. So hugely popular, highly volatile, but we don't see why it would be in a typical Vanguard portfolio. If you're going to invest in it, do it outside of the money you have dedicated to your long-term goals.

Massy Williams: All right, so we're not going to have a Vanguard crypto fund anytime soon or ever.

Tim Buckley: Yes, I think Greg said that last year. I'm saying it this year.

Greg Davis: I'll repeat it again this year as well.

Massy Williams: But, Greg, we do think a bit differently about underlying technology, right? We're thinking that we're using blockchain in your shops.

Greg Davis: We do. We do. So the underlying technology, I think, has the opportunity to truly transform the financial services industry, right? And we use the technology today in the form of a private blockchain where we receive index data directly from the index provider in a very secure and operationally efficient manner that helps reduce risk, helps make the process a lot more efficient.

So we see there's a number of use cases for the technology, but again when it comes to the asset itself of crypto, again, it's a speculative tool. And that doesn't really have a real reason to be in a portfolio when you're thinking about long-term investing. We think about more traditional asset classes like stocks, bonds, and cash.

Massy Williams: That makes a lot of sense. So no investments into crypto coming from Vanguard, but we do believe that there's use for the technology underlying those cryptocurrencies.

All right, so we do have our next question. So meme stock may be a new topic for us, but this topic has been debated for a while now, active versus passive. Which one is the better strategy? So Boykin from Virginia is asking, "In comparison to passive fixed income, what are the advantages and disadvantages of actively managed fixed income mutual fund and ETF?" We have a pretty clear view on that at Vanguard, so I feel like any of you can respond to that. But, Sara, since you're closer to me-

Sara Devereux: I'll take it.

Tim Buckley: Oh, and she's new. She's got to answer it. Greg and I have answered this one.

Massy Williams: You're closer to me, so I'm giving this one-

Tim Buckley: We haven't convinced everyone yet, so Sara, you got them.

Sara Devereux: Sounds good.

Massy Williams: You get it, Sara.

Sara Devereux: It's one of my favorite topics, in fact. Thank you. Thank you for the question.

Look, I would say a passive index fund or ETF is a great starting point for many investors. You get broad access to the market, broad exposure at a low cost.

Now there may be some investors who seek to outperform the index. Right, and for those investors, they might want to consider an actively managed strategy. I would add that active funds have more risk, so taking more risk means potential for more returns but it also means some potential for losses and you need to be aware of that.

So when you're considering an active manager, I would highlight two things to focus on closely. One, the team. You want an experienced team that works under a process that has a very robust risk framework. That's what we have at Vanguard. The second thing to consider with active managers is what are their fees? Now, we always say that. You know, the lower the fees, the more return you take home. But I'm going to just add it's especially critical in active, and that's because it might influence the way a portfolio manager takes risks. Let me dig into that a little more.

If you are a high-cost active manager, you might feel pressure to take more risk. In fact, you might have to take more risk just to get to that fee threshold before you can return a single dollar back to an investor. At Vanguard, our low fees give our portfolio managers some breathing room. We don't feel that need to have full risk on all the time. We can calibrate risk up when the opportunity set is there and down when the opportunity set is not there. So we have that flexibility that sometimes our high fee competitors don't have.

And I would say that's, you know, right now that's especially critical to think about the low return environment, the high amount of risk out there. Having that flexibility is even more critical.

But at the end of the day, I'll go back to what we've been saying. Bonds are an important part of your portfolio. So whether you're in active or passive, the most important part is just to have that allocation to fixed income.

Tim Buckley: And maybe talk a little bit more about that risk-controlled approach. That doesn't mean you don't take risk. Maybe you talk about why you guys have been so successful in there. In that market crisis, you actually put some risk on.

Sara Devereux: Yes, in fact, I think 2020's a great example. In that year, you know, to start off the year, we actually took risk down in our portfolios. Now, that wasn't because we knew the pandemic was coming. Nobody could predict the pandemic was coming. We took risk down because we felt that valuations were expensive, and investors were simply not being compensated enough for the risks that were in the marketplace.

So when we got to March of 2020 and there was a pretty violent selloff, we were very defensively positioned. Now when valuations got more attractive, we put risk back on; and we were able to, you know, the result was we were able to deliver very strong returns for our investors.

But I mean I would highlight one more thing. If I get specific about our Core Bond Fund, because it really represents all of, the broader fixed income asset class, that fund alone finished in the top 3% of its category. But I would also note that it finished in the top third in terms of minimal volatility of returns. So better returns, lower risk. That's what we hope to deliver.

Tim Buckley: And that's why I want, look, clients should stay invested because you're worried about these things. You're making the small adjustments that need to be made to a bond portfolio. Someone shouldn't be jumping in and out of their bond fund. They should just stay invested, let your team do its thing.

All right, Massy, I'm biased here.

Massy Williams: Well, no, but for good reason. You did cite the data, so you're not biased with our data. I think everybody will be okay with that.

There were raised a lot of questions that we received also on another topic, ESG, so environmental, social, and governance investing. And Susan and many others were asking the question around what Vanguard's doing in that space. Greg, maybe I'll go to you for that question.

Greg Davis: Sure, well thanks, Suzanne, for the question. It's a very popular segment of the marketplace, and it really boils down to investor preferences.

So, you know, when it comes to ESG-type investing, there's some investors that prefer not to have exposure to tobacco, firearms, alcohol, things of that nature. And ESG-type products allow you to express those views, and Vanguard has funds that exclude those sectors from our respective benchmarks. But there's other things that Vanguard does as well.

Within Sara's team, when you think about how they invest money on the fixed income side in our active process, they look at the risks that are associated with every bond that they buy. So they understand what are some of these major ESG risks as well, and are they being compensated for taking them?

So they're not ESG mandates, but again those risk factors are part of the investment process to understand how much risk is it, are we being effectively compensated for it before they make the decision to invest or not invest within a security.

And then the third component in which we do is really the engagement, our investment stewardship group does with the companies in which our equity index funds invest in. So they're engaged with these companies on a regular basis, making sure they understand the various types of risks that are associated with the businesses and the sectors that they're in, especially around ESG, to make sure that they're well-governed, they're well-monitored, and that those boards are effectively holding management accountable for those factors.

Massy Williams: Thank you, Greg. And for Susan and anyone else who would like to learn more about what Vanguard is doing with ESG, we do have a link on the Resource button that I talked about, the green button your screen. So just click on there, and you can get additional information.

Tim, we received a question that is a bit far from everything we have been talking about now; but I felt like-

Greg Davis: Those are Tim's favorites, by the way.

Massy Williams: Yes, so I felt like Tim would want to answer that question.

Tim Buckley: I got meme stocks. Now we're getting something else. All right.

Massy Williams: So this is a question from Johnson from California, who is commenting on the fact that we have an increasingly competitive environment and wondering what that would mean for Vanguard expense ratio in the future. Will we be increasing our expense ratio because we feel like we need to keep up with the competition?

Tim Buckley: Well, Massy, like I love this question from Johnson because it allows me to talk about our ownership structure and our investment philosophy, two things that we're passionate about.

I'd first correct Johnson a little bit on the investment philosophy. I think all of our clients need to know, I think the two of you would agree, like why do we actually cut expense ratio each and every year, and we do it consistently? We don't really do it for competitive reasons. You may have read that in the press, but we do it in funds where no one's even close to us. We'll cut expense ratio. We've been doing it since our founding.

It's because of our investment philosophy. We believe clients should keep more of their return. And the way they get to keep more of their return from what the markets give them is to cut their expense, like lower their expense ratio year after year if you can do it.

The other reason we lowered the expense ratio, you guys know this, is we are owned by our clients; and it's how we return value to them. So just for Johnson and others as we go through, just to remind people, when you're an investor at Vanguard, when you're a client of Vanguard, you own the funds.

The funds in turn own Vanguard. So our clients are actual owners. Massy, you know this, we don't have any other owners out there. And we don't have like a private family, public shareholders, PE investors. No, we just have our clients. They own Vanguard.

So as a team up here, you know, with the rest of the Vanguard leadership, we run Vanguard just like you would any other competitive company. Like we try to maximize return for our owners. Our owners just happen to be our clients. So want to maximize it in the funds and how we run our business. So when we have good years, and we've had several of them, and we have that excess revenue, what do we do with it? Well, we get to pour that 100% back into the business or give some back to our shareholders, and we do a little bit of both.

So we can take the profits, put them back into the business, and increase our investments in technology, funds, services, talent. And if you look at that investment budget, it's doubled, Greg, I want to say. It's doubled in the past five years. It's growing by another 20% next year.

At the same time, we like to dividend back some of the savings to our clients. Well we can't, like a traditional company, just write that old-fashioned dividend check and send it out. The way we have to do it is lower your expense ratio. So if you see the expense ratio lower, as a client, the client should think about that's how Vanguard's giving value back to me.

Massy Williams: Certainly. Value's a powerful model and a unique structure. And as a client of Vanguard myself, I like the sound of an organization that will return all that value to me every year.

So we have a trend here and the question that we are receiving actually from our live audience, and that's going to ETF. And we received also a lot of questions submitted from that. So we know that there has been a huge adoption of ETFs. Actually, in 2021, there were close to, I think north of $900 billion.

Tim Buckley: That's right.

Greg Davis: That's right.

Massy Williams: It's B.

Tim Buckley: 898.

Massy Williams: Yes.

Tim Buckley: $898 billion.

Massy Williams: Yes, it's a B, billion, 900 billion going into ETF. So we have a question on how does Vanguard view the trend toward ETF over index fund? I'm going to paraphrase a little bit that question. I think we're asking are index funds dead, is it all about ETF? Greg, do you want to answer that question?

Greg Davis: Yes, so sure. I mean there's been tremendous growth when it comes to ETFs. And if you were to look at the size of the ETF assets under management, since 2015, there was about $2 trillion in AUM in ETFs. That number's more than tripled to over $7 trillion now. So clearly investors are voting that that is a preferred structure, and it's for a variety of reasons.

Number one, I would say is that, look, when you think about the growth of indexing, ETFs just provide a way to get easy access using a single security. And there's some benefits to using ETFs versus traditional funds such as, in many cases, they have lower fees than a traditional index mutual fund.

The other component is really around the tax efficiency. ETFs in general have the ability, because of their creation/redemption process, the ability to defer capital gain activity in many cases. And so that from a tax perspective makes them a bit more efficient as well.

And then in general, you know, investors have received greater access. The fact that you can trade an ETF on many brokerage platforms for free has created a strengthening lever in the ecosystem as well. But again, mutual funds still provide a very vital role. They are critical in terms of the 401(k) plan business. They're also very helpful for our investors when they're thinking about periodic investing and doing that on a more systematic basis.

So again, there's a number of good reasons to have ETFs; but the market is voting, and you're seeing folks really gravitating towards ETFs.

Massy Williams: Thank you, Greg. Team, anything to add?

Tim Buckley: He's just sitting there like, you know, like I'm sitting here like, "I love all my children the same."

Greg Davis: I do. I do.

Tim Buckley: I love them equally. But you did say one is lower cost, one's more flexible, one's better for tax-lost harvesting.

Greg Davis: Everybody doesn't have access to all of them now.

Tim Buckley: Okay, yes. But in a 401(k), I give you the traditional mutual fund structure, but outside of that ETF has got more. You just have to be comfortable with the trade path.

Greg Davis: That's right.

Tim Buckley: -which is that Vanguard has just been redone. And so it's a much easier trade path.

Greg Davis: That's right.

Tim Buckley: $900 billion went to ETFs last year, right?

Massy Williams: All right, so I think we are afraid to hear what Tim is saying here, so all right. So we did get a question on our new digital advisor, so can someone talk about the new digital advisor service that Vanguard has. So who wants to take that one?

Tim Buckley: Massy, why don't I actually just talk about advice a little bit for someone's portfolio because it, look, we always say the first thing you should do is you need to get invested. You need to stay invested. And for some people, they should be keeping things simple.

So if you're just starting out, you don't necessarily need advice. Our Target Retirement Fund might be perfect for you. Like you're getting a turnkey portfolio. It's well-diversified, it's more aggressive when you're younger, and it gets more conservative as you get older. And it's low cost, and it rebalances, etc., etc.

But as soon as you have multiple goals, as soon as you have multiple goals, you may want to consider advice. As soon as live gets a little bit more complicated, in the past you wouldn't because it was really expensive. So remember, your success is determined by the funds you hold and the advice you get. And the cost of both will come out of your return. Well Vanguard has been helping pushdown for 45 years the cost of investing on the fund side.

On the advice side, it stayed pretty high. But now we've been able to help push down the cost there, and so there's two really forms you can get at Vanguard. One is our Personal Advisor Services. We've talked about that here before. The other one is our Digital Advisor. And they're both going to be multiple goal, so you're able to do your multiple goals, but think about PAS, Personal Advisor Services, is going to have more of the robust financial planning with a person. Digital Advisor will have a lot of the same tools increasingly over time.

And so it's much more for those people with multiple goals, and then if you think about, if Massy, someone's approaching retirement and they've got complexity retirement, you want to model out you've got things like, "Well when do I take Social Security? How do I draw down my income? What's most tax-?" Like we'll set up your asset allocation. We'll set up your multiple goals. We'll set up tax-optimized retirement income which is, it's sophisticated math with a lot of horsepower behind it. Think about what your emergency cash is. Think about, all right, what your healthcare expenditures might be. All of these things come in with that advice.

Digital Advisors will give you a lot of those things, not the full financial planning PAS will give you. We're happy to walk you through those two, the difference between them.

Now the expense for PAS is 30 basis points. For Digital Advisor, it's 15 basis points.

Massy Williams: Yes, well you just mentioned that investor success is both based on the advice we get and also the funds we own. And we did get a lot of questions from both sides of the spectrum, right? We have a question from retirees, "How should we be thinking about my portfolio differently given this environment?" But we also got a lot of questions from some of our investors that are earlier in the accumulation phase and are basically asking here, "What do I do to ensure that I continue to save more in the right way and continue to be in the market?" So what would you say?

Tim Buckley: Really, if you're near retirement, if you're just starting out, it's the same deal. You have at least a 20-year time horizon if you're 60 or if you're 30. Like I hope it's much longer. You're long term, and you've got to take that long-term perspective.

If you don't feel you have the discipline to actually continue to invest or rebalance and not panic in the market, you should really consider advice. And that is where advice really comes in when you don't have that. You know it. You deal with advisors all the time. One of the biggest value-adds they have, Massy, right, is to have discipline in a tumultuous market.

Massy Williams: Behavioral coaching, that's right.

So thank you, team. And with that, I'm going to go back to our audience. We talked about market, economy, investment trends. Let me check with you again and take a second poll question that you should be seeing on your screen.

How confident do you feel about reaching your investment goal in 2022? Are you very confident, somewhat confident, or not at all confident? While we wait for your results to come in, I'm going to continue going for the questions that we have here and hope that you will feel a bit more sure about your portfolio.

Tim Buckley: We should have asked that question in the beginning. Do they feel more confident now that they've heard us or-?

Massy Williams: I timed when I asked that poll because I'm hoping that we're going to have a very small percentage of not at all confident.

Tim Buckley: Well don't tell us.

Massy Williams: Because otherwise you will have to start making them feel really, really confident about their portfolio here.

We just did get a question from Steven in Illinois that I'm going to be sending, Sara. You'll be the lucky one for that as well. What about that? Are you ready?

Sara Devereux: Sounds good. I'm ready.

Massy Williams: All right, so we were expecting rising rate environment, which bond fund duration carries the least risk versus return? Before even you answer that question, can you just ground all of us on what is bond duration?

Sara Devereux: Sure, thank you for the question, Steven. I actually love rolling up my sleeves and getting a little bit technical. So we'll define duration.

Duration is price sensitivity to a movement in rates. Longer duration means more price sensitivity. Shorter duration or less duration means less price sensitivity for the same movement in rates.

So in terms of what duration profile is right for you, Steven, it's really about your investment objectives, your risk tolerance, and your time horizon. You know, as we mentioned earlier, over the short term, we do expect volatility in the fixed income markets. Now over a longer period of time, a longer horizon, the return outlook is more stable. Okay, and we've been advocating to stick with your asset allocation plan.

There is one scenario I do want to address specifically because some investors have been talking about trying to minimize their interest rate exposure by shortening their duration, less price sensitivity, and then they're trying to backfill that yield gap by going into riskier credits.

Now this is tricky. We've been hearing for most of the hour from Tim and Greg about how trying to time the market rarely ends well, and it's better to stick with your long-term asset allocation plan. Right, so that's definitely the case. But I would add another reason why this is tricky, because if you start going too far down that path of putting a lot of credit into your fixed income portfolio and less duration or interest rate risk, you might end up with a portfolio that looks more like equities; and then you could end up losing that diversification benefit that is kind of one of the main goals of having a fixed income in your portfolio in the first place.

So we'll just go back to that overriding theme that the diversification benefits of fixed income and having bonds in your portfolio really overwhelms everything else.

Massy Williams: Yes, thank you, Sara. And I think it's also about the investor making sure that we're looking at that in the unique circumstances, right? Like what is your time horizon? What is your risk tolerance? What are your investment objectives? Think about that overall portfolio strategy as opposed to trying to make like small moves with your different assets within your portfolio, right?

Sara Devereux: Exactly, right.

Greg Davis: There's been a number of folks, Massy, just to add onto that. There's been a number of folks over time who've said, "Hey, let me just abandon bonds all together, right, because the yields are so low, why should I own bonds anyway? I could buy high dividend yielding stocks or I could buy REITs or things of that nature."

But when people do that, what they're doing is they're adding a lot of additional equity exposure. So when you're in a marketplace where there is a downturn in equities, you do want that diversification to help balance that out and give you some dry powder to redeploy back into equities if there is a selloff in the equity market. So bonds continue to play a very vital role.

Massy Williams: Whereas diversification, again, your sister must be happy.

Sara Devereux: Yes, bingo.

Massy Williams: Now, let's take a moment and see how you responded to the last poll question. So I have the results here. Very confident, we have 30%. Somewhat confident, 57%. And then close to 12% where we're not at all confident. So I need you to do a little bit more work here so that everybody-

Tim Buckley: Like that 12%?

Massy Williams: Yes, I'm looking for 100% confidence. So we're going to go with that, so what is your reaction to that? Like how are you feeling when it comes to our investor and what they should be keeping in mind? How do we appease them because I think it has been a theme here in all the questions that we're hearing? There is a lot out there, like we said at the beginning. But hearing everything and anything, what would you want them to kind of like keep in mind? I think we heard bits and pieces of it as we went through the conversation today, but, Sara, let me go to your first. One thing we should keep in mind?

Sara Devereux: I think I would just think about, you know, it's times like this when you're feeling some short-term volatility and short-term stress when you really need to just be disciplined and keep your eye on the long game. I think that's like the biggest takeaway right now, especially when we're seeing this current volatility.

Massy Williams: Long-term perspective. Greg?

Greg Davis: Yes, I would say the same type of thing, long-term perspective and tune out the noise. It was something that Tim said very early on. Again, you're going to see periods and bouts of volatility, but stay focused on the long term and a diversified portfolio.

Massy Williams: Thank you, Greg. So this hour's flown by. I'm going to go to you.

Tim Buckley: Before we do that, just we often talk about people's portfolios, and they want to do something. So like the 12% may want to do something. If you face volatility and your portfolio's down, just spend a little bit less on it. And when it's up, you can spend a little bit more. But you're more in control of that. Again, as long as you can keep it invested, you can come out the other side. So spend just a little bit less. It doesn't have to be a lot less, but a little bit less if they feel like they have to do something, rather than changing allocations.

Massy Williams: All right, Tim, I'm actually going to stay with you because this hour has flown by. So thank you to the audience for submitting all those great questions, not only with presubmitted questions but with live questions that were coming in. That was great.

Before we close though, I do want to go back to you. What do you want them to walk away with after this conversation?

Tim Buckley: You know, well first, I want to thank all of our clients. Massy, you mentioned it, spending an hour with us. We got to a handful of the 7,000+ questions. I hope we gave you more confidence. I hope you found the answers reassuring, enlightening a bit along the way. Thank you for sending the questions in. We will read them all. We have read, we haven't read each one of them, but we will pour through them because we want to know what's on your mind. What are your concerns? We get insights from that.

The second thing, what we really want to thank you for is the trust that you put in Vanguard. It is our greatest asset. Arguably, it's our only asset because the 8.5 trillion that we manage, that's all your money. And so that trust, it's dear to us.

I alluded to 30 years a few times tonight, that I celebrated my 30-year anniversary with Vanguard. That means I've seen a lot of investment trends come and go; and the four of us up here, we've navigated a few things. We have navigated market crashes, financial crises, and now a pandemic.

We have witnessed firsthand the efficacy and the power of the Vanguard philosophy. It may not be the most exciting cocktail chatter to talk about diversification across asset classes and markets, keeping costs in control, rebalancing, keeping an eye on taxes. It's not going to make you popular. So Greg and I aren't invited to a lot of places, a lot of social functions to talk investments with people.

But we do know that it is the most effective way to hit your goals, your long-term goals. And case in point on this. To our clients out there, if we look at how much better off you are this year versus last year, our clients on the whole are $1.2 trillion better off right now this year than they were the last time we came to you a year ago. So stick with that Vanguard strategy, stay healthy, and have a great 2022.

Massy Williams: Thank you so much, Tim, and thank you to all of you were live with us. That was almost 32,000 I'm hearing viewers live. So thank you for that. Thank you for your time. We appreciate it, but as Tim just said, thank you for your trust at Vanguard.

Tim, Greg, Sara, thank you so much for all of your insight. I'm sure our viewers appreciated it.

And you, member of the Vanguard community, again, thank you. We are grateful for your time, and we hope that you've benefited from this session today. And we do want to hear from you, so you have a red button on your screen. Please click on it and share your feedback. How did you find tonight's session? How do you want us to continue to improve for future events? Let us know.

In a few weeks, you will receive an email with a link of a replay of this webcast. We hope you enjoy it.

As you just heard from all of our guests, the market is certainly complex. But investing doesn't have to be. And Tim just reminded us Vanguard Investment principles are still very much in line here. Focus on what you can control. Create clear and appropriate goals for your unique circumstances. Remain disciplined. Maintain a globally diversified portfolio across and within your asset classes. And take a long-term perspective. Sara just said it. And keep an eye on that cost. Everything I just cited, you can control, so focus on that.

Guess what, you don't have to do it alone. We're here to help, so please reach out to us and tell us how can we best serve you and support you to reach your financial goals in 2022 and beyond. On behalf of the team, Greg, Sara, and all of us here at Vanguard, thank you again. Have a wonderful 2022 and be well.

END OF WEBCAST

Connect with Vanguard® • vanguard.com

For more information about Vanguard funds or ETFs, visit vanguard.com to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information about a fund are contained in the prospectus; read and consider it carefully before investing.

Vanguard ETF Shares are not redeemable with the issuing Fund other than in very large aggregations worth millions of dollars. Instead, investors must buy and sell Vanguard ETF Shares in the secondary market and hold those shares in a brokerage account. In doing so, the investor may incur brokerage commissions and may pay more than net asset value when buying and receive less than net asset value when selling.

For the one-year period ended December 31, 2020, Vanguard Core Bond Fund performed in the top 3% of Morningstar intermediate core bond category and was in the top third of its peer group based on minimum volatility of returns. Results will vary for other time periods. Only competing funds with a minimum one-year history were included in the comparison. (Source: Morningstar.) Note that the competitive performance data shown represent past performance, which is not a guarantee of future results, and that all investments are subject to risks. For the most recent performance, visit our website at www.vanguard.com/performance.

All investing is subject to risk, including the possible loss of the money you invest. Diversification does not ensure a profit or protect against a loss. Be aware that fluctuations in the financial markets and other factors may cause declines in the value of your account. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income.

Investments in bonds are subject to interest rate, credit, and inflation risk. Although the income from a municipal bond fund is exempt from federal tax, you may owe taxes on any capital gains realized through the fund's trading or through your own redemption of shares. For some investors, a portion of the fund's income may be subject to state and local taxes, as well as to the federal Alternative Minimum Tax. While U.S. Treasury or government agency securities provide substantial protection against credit risk, they do not protect investors against price changes due to changing interest rates. Unlike stocks and bonds, U.S. Treasury bills are guaranteed as to the timely payment of principal and interest. Investments in stocks or bonds issued by non-U.S. companies are subject to risks including country/regional risk and currency risk.

ESG funds are subject to ESG investment risk, which is the chance that the stocks or bonds screened by the index provider for ESG criteria generally will underperform the market as a whole or, in the aggregate, will trail returns of other funds screened for ESG criteria. The index provider's assessment of a company, based on the company's level of involvement in a particular industry or the index provider's own ESG criteria, may differ from that of other funds or of the advisor's or an investor's assessment of such company. As a result, the companies deemed eligible by the index provider may not reflect the beliefs and values of any particular investor and may not exhibit positive or favorable ESG characteristics. The evaluation of companies for ESG screening or integration is dependent on the timely and accurate reporting of ESG data by the companies. Successful application of the screens will depend on the index provider's proper identification and analysis of ESG data.

Investments in Target Retirement Funds are subject to the risks of their underlying funds. The year in the Fund name refers to the approximate year (the target date) when an investor in the Fund would retire and leave the work force. The Fund will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. The Income Fund has a fixed investment allocation and is designed for investors who are already retired. An investment in a Target Retirement Fund is not guaranteed at any time, including on or after the target date.

Asset class return projections are based on Vanguard Capital Markets Model (VCMM) projections. **IMPORTANT: The projections and other information generated by the VCMM regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Distribution of return outcomes from VCMM are derived from 10,000 simulations for each modeled asset class. Simulations as of September 30, 2021. Results from the model may vary with each use and over time.**

The VCMM projections are based on a statistical analysis of historical data. Future returns may behave differently from the historical patterns captured in the VCMM. More important, the VCMM may be underestimating extreme negative scenarios unobserved in the historical period on which the model estimation is based.

The Vanguard Capital Markets Model® is a proprietary financial simulation tool developed and maintained by Vanguard's primary investment research and advice teams. The model forecasts distributions of future returns for a wide array of broad asset classes. Those asset classes include U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. money markets, commodities, and certain alternative investment strategies. The theoretical and empirical foundation for the Vanguard Capital Markets Model is that the returns of various asset classes reflect the compensation investors require for bearing different types of systematic risk (beta). At the core of the model are estimates of the dynamic statistical relationship between risk factors and asset returns, obtained from statistical analysis based on available monthly financial and economic data from as early as 1960. Using a system of estimated equations, the model then applies a Monte Carlo simulation method to project the estimated interrelationships among risk factors and asset classes as well as uncertainty and randomness over time. The model generates a large set of simulated outcomes for each asset class over several time horizons. Forecasts are obtained by computing measures of central tendency in these simulations. Results produced by the tool will vary with each use and over time.

Vanguard Digital Advisor's services are provided by Vanguard Advisers, Inc. ("VAI"), a federally registered investment advisor. VAI is a subsidiary of VGI and an affiliate of VMC. Neither VAI nor its affiliates guarantee profits or protection from losses.

Vanguard Digital Advisor is an all-digital service. Digital Advisor charges a 0.20% annual gross advisory fee to manage Vanguard Brokerage Accounts for a typical Digital Advisor managed portfolio. The gross advisory fee is reduced by a credit of the actual revenue The Vanguard Group, Inc. ("VGI"), or its affiliates retain from investments in each enrolled account, resulting in a net advisory fee that will be the actual fee collected from your account. A typical Vanguard ETF® portfolio will be credited approximately 0.05%, resulting in a net advisory fee of approximately 0.15%. The actual net fee amount will vary based on your unique asset allocation, account type, and specific holdings in each enrolled account. Note that this fee doesn't include investment expense ratios, but we generally recommend using low-cost Vanguard funds to build your portfolio. For more information see the Vanguard Digital Advisor Brochure at https://personal.vanguard.com/pdf/vanguard-digital-advice-brochure.pdf.

Please note: Some of the Vanguard Digital Advisor capabilities described are not available now but will be soon. And this service will continue to be enhanced over time.

Once you enroll a taxable brokerage account in Vanguard Digital Advisor, you'll have the option to add nonretirement goals to your Digital Advisor profile. This can help you balance retirement with your other major financial goals. At this time, Digital Advisor only supports nonretirement goals you'd like to achieve before you reach age 59½.

Vanguard Personal Advisor Services are provided by Vanguard Advisers, Inc., a registered investment advisor, or by Vanguard National Trust Company, a federally chartered, limited purpose trust company. The services provided to clients who elect to receive ongoing advice will vary based upon the amount of assets in a portfolio. Please review the Form CRS and Vanguard Personal Advisor Services Brochure for important details about the service, including its asset-based service levels and fee breakpoints.

VAI is a subsidiary of VGI and an affiliate of VMC. Neither VAI nor its affiliates guarantee profits or protection from losses.

Vanguard Personal Advisor Services charges fees based on a tiered fee schedule calculated as an average net advisory fee on all assets managed by Vanguard Advisers, Inc or by Vanguard National Trust Company. For portfolios less than $5 million in assets, the fee is 0.30%; for portfolios from $5 million and below $10 million in assets, the fee is 0.20%; for portfolios between $10 million and $25 million in assets, the fee is 0.10%; and for portfolios above $25 million in assets the fee is 0.05%. Retail asset and institutional asset fees will be assessed separately.

Assets under management as of December 31, 2021.