

Monthly ETF Field Guide

Talking Points for Client Conversations
October 2022

Did You Know?

Investing Through Tough Times: Bonds Edition

How have U.S. Treasury and corporate bonds performed in tough times of the past? We highlight why investors today may want to think twice before making a drastic change to their bond portfolios.

Academic Perspective

More Time or More Money? How Wealth Affects What We Value

By Prof. Meir Statman

Few people have all the time and money they want. Money squeeze is common, as is time squeeze, but each take different forms among the working class and the elite

Market Review

- Global stocks rallied amidst hopes that rising recession risk would cause central banks to change course.
- U.S. headline inflation eased, while core inflation rose again.
- Yields continued to climb, and most bond sectors posted losses for the month.

Portfolio Updates

 Portfolio characteristics and composition

Appendix

- Standardized
 performance
- Glossary
- Disclosures

This information is not authorized for distribution unless preceded or accompanied by a current prospectus or summary prospectus. Please visit <u>Avantis Investors</u> for more information.

Did You Know?

In September, we reported on the returns of U.S. stocks during economic business cycles of the past 50 years. There's reason to believe the U.S. is currently facing a slowdown induced by higher interest rates (i.e., a slowdown in consumer spending) despite positive gross domestic product (GDP) growth during the last quarter following two quarters of negative growth.

The strength of this slowdown is not known, as with recessions whose start and end dates are not identified until well after the fact when the National Bureau of Economic Research (NBER) has sufficient data to make a clear judgment. But we can look to the past to understand how stocks have performed historically both during and coming out of periods of economic contraction.

In our September article, we showed that the average monthly return for U.S. stocks during recessions has, on average, been slightly negative and well below their long-term average. What's driven this result has been significantly negative returns during the first half of recessions. U.S. stocks have actually experienced strongly positive average returns in the second half of recessions as the economy shows signs of recovery, leading into a period of economic expansion.

While there is no guarantee of what's to come, these results seem to offer some reason for optimism for those invested in stocks today. But given that many investor portfolios hold a mix of stocks and bonds, this article examines how bonds have performed historically during past recessions and expansions. We also look at volatility during past business cycles, which highlights the need to be ready for bumps in the road even when a recovery is in sight.

What Does a Recession Mean for Bond Returns?

As for stocks, it's also been a tough year for bond investors. While most U.S. bond sectors have outperformed the broad U.S. stock market, most have still seen losses year to date. U.S. Treasuries and U.S. corporate bonds have experienced steep drawdowns, but there's no denying the pain has been greater for corporate bondholders.

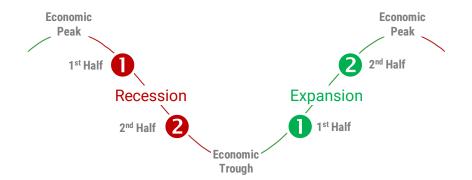
So, how have bonds performed during and after recessions historically? **Figure 1** presents average monthly returns for Treasuries and corporate bonds during the first and second halves of recessions and expansions over the past 50 years as defined by the NBER. For comparison, we added this data to our prior results for U.S. stocks.

The data show that U.S. corporates have historically exhibited similar patterns to equities throughout past business cycles. Like stocks, the weakest returns for corporates have come during the first half of recessions, followed by strong returns in the second half. And as true for stocks, above-average returns for corporates have also historically carried into the first half of expansions.

U.S. Treasuries have similarly experienced above-average returns in the second half of recessions, but in the first half of expansions, results have been muted and near their long-term average. The notable difference for Treasuries relative to corporate bonds and stocks comes in the first half of recessions. When U.S. stocks and corporate bonds have historically performed the worst, Treasuries have delivered returns above their long-term average.

What can we take away from these results? First, when markets are pricing in a slowdown in the early days of a recession, risky assets are expected to do worse than assets with stronger backing, as in the case of Treasuries secured by the strength of the U.S. government. Then, as prices incorporate information during tough times, risk premiums in the bond market tend to increase. The difference in yields of corporate bonds versus Treasuries, also known as the credit spread, often becomes wider, and the expected returns of corporate bonds become more attractive.

Figure 1 | U.S. Corporate Bond Returns Have Historically Been Strongest in the Second Half of Recessions



	Recessions		Expar		
AVERAGE MONTHLY MARKET RETURN	1 ST HALF	2 ND HALF	1 ST HALF	2 ND HALF	ALL MONTHS
U.S. Stocks	-2.51%	2.15%	1.34%	1.05%	1.02%
U.S. Treasuries	0.82%	1.21%	0.58%	0.42%	0.56%
U.S. Corporate Bonds	-0.27%	2.05%	0.81%	0.39%	0.64%

As shown in **Figure 2**, looking at the U.S. Treasury and corporate bond yield curves today versus the end of 2021, we can see these dynamics at play. Yields for U.S. Treasuries and BBB-rated corporates have increased significantly since the end of last year. Still, we also see that the difference in yield (or credit spread) between Treasuries and corporates has increased.

Today, 10-year BBB-rated corporate bonds are yielding more than 2 percentage points above that of 10-year Treasuries and up about 1 percentage point from the end of last year.

Another notable observation is that the Treasury curve is inverted today in intermediate maturities, meaning shorter-maturity Treasury bonds (e.g., 2-year maturity) are yielding more than longer maturities (e.g., 10-year maturity). This tells us something about expected returns.

While holding bonds across the maturity spectrum can offer diversification benefits within a broader bond portfolio, investors may also improve expected returns within Treasuries by allocating more weight to higher-yielding short-maturity bonds and less weight to longer-maturity bonds offering lower yields.

A Treasury market index, for example, which offers a snapshot of the current market, will hold the distribution of Treasuries based on bonds outstanding, failing to account for these differences in expected returns.

In contrast to Treasuries, corporate bond yield curves are upwardly sloped. While corporate bonds offer higher yields than Treasuries, there are also generally higher yields today within corporates as you go out the maturity spectrum.

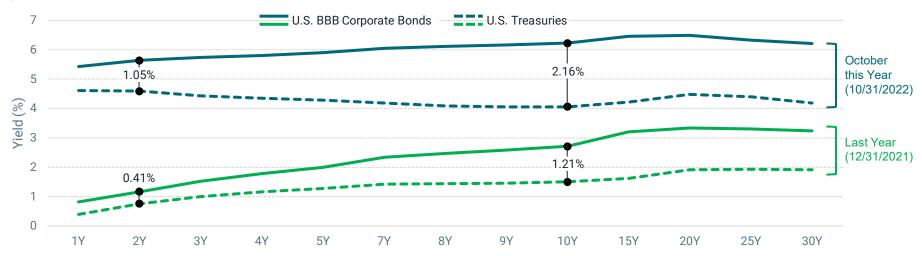


Figure 2 | Bond Market Risk Premiums Have Increased in 2022

Data as of 10/31/2022. Source: Bloomberg. Yield is a general term that relates to the return on the capital you invest in a bond. Price and yield are inversely related: As the price of a bond goes up, its yield goes down, and vice versa.

While investors have likely been disappointed by bond returns to date in 2022, the upside is that as bond prices have gone down, expected returns have gone up. With increasing risk premiums, common during the early stages of recessions, the rise in expected returns has been even greater for corporate bonds.

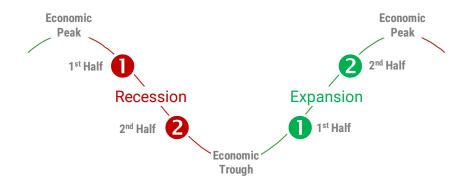
The risk for investors now considering jumping out of fixed income or shifting weight from corporates in favor of Treasuries is missing out on the higher returns historically seen for corporates in the later stages of recessions when the market begins to incorporate better news into prices and the recovery begins.

Understanding Volatility in Tough Times

It's also useful for investors to understand that while markets have recovered from many downturns in the past, it's neither clear when a recovery begins nor guaranteed that it will be a smooth ride when it does. Most would expect market volatility to be high during the tough times. Still, an examination of the historical volatility data shown in **Figure 3** reveals that stocks tended to remain volatile even in the second half of recessions when both stocks and bonds have enjoyed well-above-average returns.

This tells us that good times might not always feel so good. This is another reason we believe investors are best served by setting a plan and staying the course through the good and the bad. So, buckle up and stay focused on the destination.

Figure 3 | Stocks Have Historically Remained Volatile in the Second Half of Recessions



	Recessions		Expar		
U.S. STOCKS	1 ST HALF	2 ND HALF	1 ST HALF	2 ND HALF	ALL MONTHS
Average Monthly Returns	-2.51%	2.15%	1.34%	1.05%	1.02%
Annualized Volatility (Since 1990)	25.35%	36.85%	18.87%	17.99%	19.58%

Annualized volatility (since 1990) is represented by the VIX Index, which aims to measure the stock market's expectation of volatility based on S&P 500 Index options. VIX data begins in 1990.

Academic Perspective

"Time is money," Benjamin Franklin said.

We convert time into money by income from work, enhancing our well-being by the utilitarian benefits of what money can buy, and we convert money into time, freeing us from work and enhancing well-being by the expressive and emotional benefits of what free time can provide. We combine time and money and substitute one for the other to increase our well-being.

The typical American home of 1900 had no electricity, wrote journalist Derek Thompson, and only the rich had indoor plumbing. The decades that followed brought time-saving refrigerators, stoves, washers and dryers, and vacuum cleaners.¹

People could have converted their newfound time for the expressive and emotional benefits of leisure, but most chose to convert it into the expressive and emotional benefits of laundered clothes and clean homes. "Because we housewives of today have the tools to reach it," said a woman in the 1920s, "we dig every day after the dust that grandmother left to a spring cataclysm."

Few people have all the time and money they want. Money squeeze is common, and so is time squeeze. But these two types of squeezes take different forms among the working class and the elite.



Meir Statman, Ph.D.

Consultant to Avantis Investors

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His research focuses on behavioral finance. He attempts to understand how investors and managers make financial decisions and how these decisions are reflected in financial markets. His most recent book is *Behavioral Finance: The Second Generation*, published by the CFA Institute Research Foundation.

Time and Money Among the Working Class

A Brookings Institution report describes Kevin, a working-class father working in his financially strained family business. He cares about his children and would like to provide them with all the money and all the time they need, but he feels squeezed, compelling him to choose money over time. "Right now, all my time is on making money, any which way possible. ... I try to give the kids stuff ... just all the stuff I didn't have." 2

Trevor, a working-class father working in pest control, faced the choice between time and money when his son asked to take him to the Renaissance festival. Trevor, like Kevin, chose money over time. "I've got to make this money," he told his son. When Trevor's wife said that his son was upset, he said, "Yeah, but you got to understand."

Working-class mothers are pressed into choices between time and money as much as fathers, if not more. More working-class mothers now work full-time while continuing to do most of the household work and child care. Single-parent families are now more common, especially among mothers at the lower end of the working class, adding to the pressure to provide both time and money. Working-class mothers typically feel they never have enough time, are unable to catch up and have the nagging sense that their work is never done.

The Brookings report describes Wendy, a married mother of four who is homeschooling her children and picks up "Uber deliveries, Instacart, and all that kind of stuff" on top of running her household. "I never have enough time," she explains. "That's the one thing I always say I'm short on ... time. I feel like there needs to be three of me ... because I just don't have time to do everything."

Wendy chooses to take on additional work, sacrificing time for money, to improve her children's experiences in both time and money. "I'm trying to get ahead or make money, so I can spend more quality time with them and go more places and do more things."

Many of the working class, especially women, lack advanced scheduling in their work, diminishing their well-being by squeezing both their time and money. When her employer calls Maria, a woman working in retail, "It doesn't matter if that day someone passed away or someone had a birthday," she must go to work.

Maria worries that her work makes it hard to find time to teach the right values to her children, yet she must work to provide her children with food and shelter. "I mean, you love your child ... you want to be there. But you also want to be able to provide for them. So how do you put focus on one?"

Time and Money Among the Elite

Members of the working class typically place money over time to provide financial security for their families, not to keep up with the Joneses. Yet many members of the elite place money over time to keep up with the Joneses or get ahead of them.

The century-long American trend of declining work hours reversed around 1970 as many men of the working class and poor reduced their working hours or left the workforce altogether, while many men of the elite increased their working hours.

Economists Peter Kuhn and Fernando Lozano concluded that members of the American elite work longer hours because doing so provides greater utilitarian benefits. These utilitarian benefits are not necessarily immediate, as the salaries elite workers earn rarely include overtime pay, but the longer hours increase their likelihood of future bonuses, raises or promotions at their current or future companies. And as job security has declined among elite workers, long work hours may enhance their likelihood of keeping their current jobs in layoffs.³

Emotional Benefits vs. Utilitarian Benefits

Emotional benefits matter beyond utilitarian ones. Many American elite workers derive emotional benefits from work they perceive as a vocation, even as religion. Journalist Derek Thompson called it "workism," a belief that work is the centerpiece of one's identity and life's purpose.⁴

"The best-educated and highest-earning Americans, who can have whatever they want, have chosen the office for the same reason that devout Christians attend church on Sundays: It's where they feel most themselves."

Management scholars Christine Beckman and Melissa Mazmanian found that members of the elite strive to be ideal workers, perfect parents and diligent stewards of their health. "We expected people to be like, 'Ugh, I want to do less,'" Mazmanian said. But what they heard was, "'I want to do it all *better*." She added, "The idea of doing less is just not coded into high-achieving people's sense of self." ⁵

Expressive Benefits

Expressive benefits matter beyond utilitarian and emotional ones. Many American elite workers derive expressive benefits from long hours of work in high social status. Status symbols vary by culture and time. Leisurely lifestyles signal high status in some cultures and times, whereas overworked lifestyles signal high status in others.

Marketing scholar Silvia Bellezza and coauthors placed side by side a quote from Thorstein Veblen's 1899 book, *The Theory of the Leisure Class*, and one from a 2014 Cadillac Super Bowl commercial.

Veblen wrote: "Conspicuous abstention from labor ... becomes the conventional mark of superior pecuniary achievement." In contrast, the Cadillac commercial said: "In other countries, they work, they stroll home, they stop by the café, they take August off — off! Why aren't you like that? Why aren't we like that? Because we are crazy-driven hard-working believers, that's why!"

Bellezza and coauthors found that in the U.S., busyness and lack of leisure time connote high social status, driven by the perceptions that a busy person is competent, ambitious and in demand in the job market. In Europe, however, leisure still connotes high social status, as in Veblen's time. When members of the American elite are asked, "How are you?" the correct answer is "So busy," indicating that they are in great demand.

Do long work hours add to the well-being of elite Americans or detract from it? Have elite Americans forgotten that buying free time is the goal of work?

Management scholar Ashley Whillans and coauthors asked more than 1,000 college students whether they generally prioritize time or money, asking whether they are more similar to Tina, who is willing to sacrifice money to have more time, or Maggie, who would rather work more hours to make more money. They also asked students to report their well-being.

Whillans and co-authors followed up with the students within two years of graduation and asked them to report their well-being. They found that students who prioritized time enjoyed higher well-being than those who prioritized money.

The students who prioritized time over money did not work less. Instead, they enjoyed higher well-being because they got more enjoyment from their work. This was true regardless of their parents' wealth or how much they cared about luxuries.

Still, it is easier to focus on time when we have money.8

Endnotes

- ¹ Derek Thompson, "Three Theories for Why You Have No Time," *The Atlantic*, December 23, 2019.
- ² Tiffany N. Ford, Jennifer M. Silva, Morgan Welch, and Isabel V. Sawhill, "No time to spare: Exploring the middle class time squeeze," Brookings Institution, February 16, 2021.
- ³ Peter Kuhn and Fernando Lozano, "The Expanding Workweek? Understanding Trends in Long Work Hours Among U.S. Men, 1979–2006," *Journal of Labor Economics*, Vol. 26, No. 2 (April 2008): 311-343.
- ⁴ Derek Thompson, "Workism Is Making Americans Miserable," *The Atlantic*, February 24, 2019.
- ⁵ Corinne Purtill, "Ideal, Perfect, Ultimate: What Drives Parents to Seek the Unattainable?" *The New York Times*, September 1, 2020.
- ⁶ Silvia Bellezza, Neeru Paharia, and Anat Keinan, "Conspicuous Consumption of Time: When Busyness and Lack of Leisure Time Become a Status Symbol," *Journal of Consumer Research*, Vol. 44, No. 1 (June 2017): 118–138.
- ⁷ Daniel Markovits, *The Meritocracy Trap: How America's Foundational Myth Feeds Inequality, Dismantles the Middle Class, and Devours the Elite,* (New York: Penguin Press, Kindle Edition, 2019), 4.
- ⁸ Ashley Whillans, "Are New Graduates Happier Making More Money or Having More Time?" *Harvard Business Review*, July 25, 2019.

Market Review

Snapshot

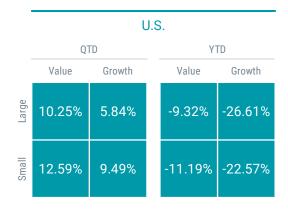
After plunging in September, global stocks rebounded in October. Expectations for a pending slowdown in the pace of monetary tightening contributed to the rally. Meanwhile, yields continued to climb, and bonds delivered another monthly loss.

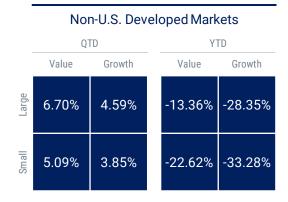
- Despite still-high inflation, rising interest rates and mixed earnings and economic data, the S&P 500 Index gained more than 8% in October. Recession concerns led to market speculation that the Fed may reevaluate monetary policy.
- All sectors of the S&P 500 Index advanced in October. The
 energy sector was the strongest, up nearly 25%, while
 communication services was the weakest, up 0.1%. The
 technology sector gained nearly 8%, even as several large, highprofile companies reported disappointing earnings.
- Following a first-half decline, the U.S. economy grew 2.6% in the third quarter, largely due to energy exports. However, the GDP report showed consumer and business spending weakened amid high inflation and rising interest rates.
- Hopes for a shift in central bank policy also contributed to gains for non-U.S. developed markets stocks, which rallied but underperformed U.S. stocks. Emerging markets stocks generally declined for the month, largely due to weakness in China's equity markets.
- With inflation at a record high, the European Central Bank hiked interest rates another 75 bps, bringing borrowing costs to their highest level since 2009.
- U.S. inflation eased slightly in September to 8.2%, but core inflation rose to 6.6%. Against this backdrop, U.S. Treasury yields continued to climb, and bond returns declined.

Returns (%)							
INDEX	1 MO	3 MO	YTD	1 YR	3 YR	5 YR	10 YR
U.S. Large-Cap Equity							
S&P 500	8.10	-5.86	-17.70	-14.61	10.21	10.44	12.78
U.S. Small-Cap Equity							
Russell 2000	11.01	-1.68	-16.86	-18.54	7.04	5.56	9.93
Intl. Developed Markets Equity							
MSCI World ex USA	5.51	-8.73	-22.16	-22.04	-0.49	0.41	4.11
Emerging Markets Equity							
MSCI Emerging Markets	-3.10	-14.11	-29.42	-31.03	-4.41	-3.09	0.79
Global Real Estate Equity							
S&P Global REIT	4.07	-14.66	-26.35	-22.02	-4.65	1.18	3.90
U.S. Fixed Income							
Bloomberg U.S.	-1.30	-8.23	-15.72	-15.68	-3.77	-0.54	0.74
Aggregate Bond					***************************************		
Global Fixed Income							
Bloomberg Global Aggregate Bond	-0.69	-9.51	-20.44	-20.79	-6.15	-2.38	-0.98
U.S. Cash							
Bloomberg U.S. 1-3 Month							
Treasury Bill	0.22	0.61	0.85	0.86	0.56	1.12	0.66

Data as of 10/31/2022. Performance in USD. Periods greater than one year have been annualized. Past performance is no guarantee of future results. Source: FactSet.

Equity Returns | Size and Style







- All major size and style categories delivered gains in October but maintained steep year-to-date losses.
- Small-cap stocks outperformed large caps for the month. Although small-cap stocks posted double-digit declines for the year-to-date period, they fared better than large-cap stocks.
- Value stocks rallied sharply and outperformed growth stocks across the board in October. Value stocks declined year to date but retained an edge versus growth stocks across capitalizations.

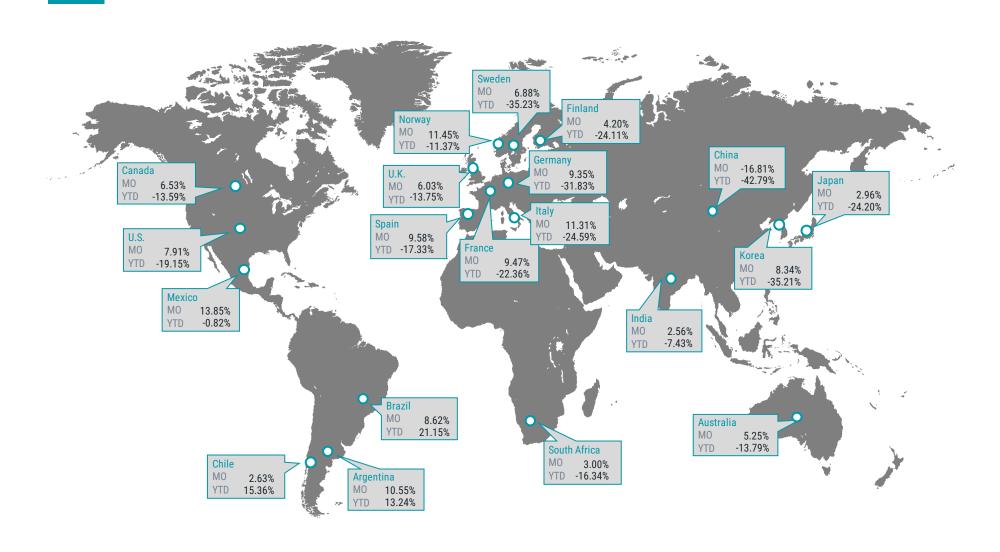
- International developed markets stocks rebounded in October but remained sharply lower for the year-to-date period.
- Large-cap stocks outperformed small caps for the month. Year to date, losses were widespread and steep, but large caps fared better than small caps.
- Value stocks advanced and outperformed growth stocks across capitalizations in October. Although they declined, value stocks fared much better than growth stocks for the yearto-date period.

- The broad emerging markets stock index declined in October and for the year-to-date period.
- Small-cap stocks declined only slightly in October and sharply outperformed large caps. Year to date, losses were widespread, but small caps fared better than large caps.
- Value stocks outperformed growth stocks across capitalizations in October. Year to date, losses among growth stocks were larger than they were for value stocks across the capitalization spectrum.

Data as of 10/31/2022. Performance in USD. Past performance is no guarantee of future results. Source: FactSet.

U.S. Equity, International Developed Markets and Emerging Markets Equity style boxes are represented by Russell, MSCI World ex USA and MSCI Emerging Markets indices, respectively.

Equity Returns | Country



Data as of 10/31/2022. Performance in USD. Past performance is no guarantee of future results. Source: FactSet. Countries are represented by MSCI country indices.

Fixed-Income Returns

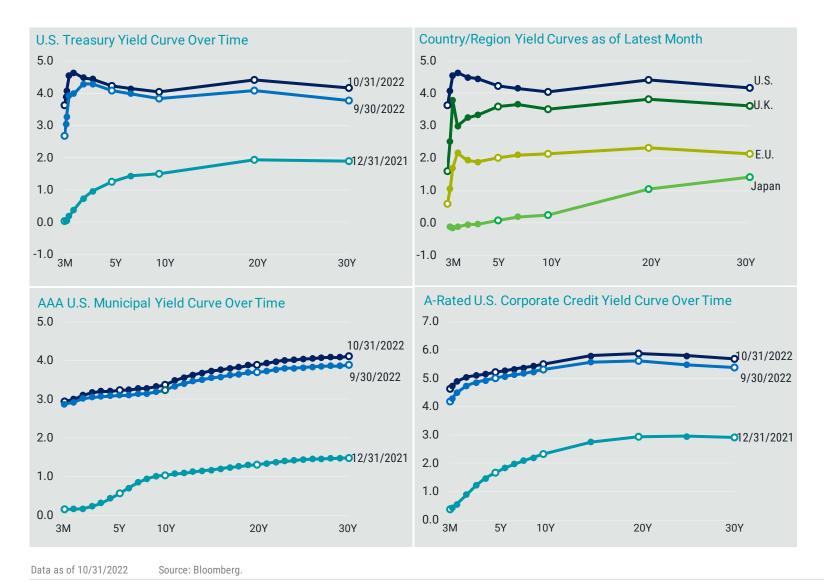
Elevated inflation and expectations for the Fed to continue raising rates through year end pushed Treasury yields higher in October. Most bonds posted declines for the month.

- The Bloomberg U.S. Aggregate Bond Index declined 1.3% in October, as all index sectors posted losses.
- Soaring mortgage interest rates and lack of demand continued to weigh on the MBS sector, which underperformed Treasuries and investment-grade corporates. Meanwhile, high-yield corporates tracked the U.S. stock market and rallied for the month.
- Municipal bonds declined modestly for the month, but they fared better than Treasuries and taxable investment-grade bonds.
- Five- and 10-year inflation breakeven rates rose in October, and TIPS rallied. TIPS outperformed nominal Treasuries, which declined and underperformed the broad bond index.
- Inflation and rate-hike expectations continued to push Treasury yields higher. The 10-year Treasury yield jumped 22 bps to 4.05%, while the two-year Treasury yield rose 21 bps to 4.49%.
 Accordingly, the yield curve remained inverted.
- Headline inflation eased slightly to 8.2% (year over year) in September, while core inflation jumped to 6.6%. Rising prices for services (shelter, transportation, medical care) and new and used vehicles largely drove core inflation higher.

Returns (%)							
INDEX	1 MO	3 MO	YTD	1 YR	3 YR	5 YR	10 YR
Global Fixed Income Bloomberg Global Aggregate Bond	-0.69	-9.51	-20.44	-20.79	-6.15	-2.38	-0.98
U.S. Fixed Income Bloomberg U.S. Aggregate Bond	-1.30	-8.23	-15.72	-15.68	-3.77	-0.54	0.74
U.S. High Yield Corporate Bloomberg U.S. Corporate High-Yield Bond	2.60	-3.75	-12.53	-11.76	0.31	2.01	4.11
U.S. Investment Grade Bloomberg U.S. Corporate Bond	-1.03	-8.98	-19.56	-19.57	-4.18	-0.32	1.46
Municipals Bloomberg Municipal Bond	-0.83	-6.73	-12.86	-11.98	-2.18	0.37	1.68
U.S. TIPS Bloomberg U.S. Treasury - U.S. TIPS	1.24	-7.97	-12.54	-11.47	1.12	2.16	1.02
U.S. Treasuries Bloomberg U.S. Treasury Bond	-1.39	-7.16	-14.30	-14.09	-3.58	-0.48	0.38
U.S. Cash Bloomberg U.S. 1-3 Month Treasury Bill	0.22	0.61	0.85	0.86	0.56	1.12	0.66

Data as of 10/31/2022. Performance in USD. Periods greater than one year have been annualized. Past performance is no guarantee of future results. Source: FactSet.

Global Yield Curves



Yield is a rate of return for bonds and other fixed-income securities. A yield curve is a line graph that shows yields of fixed-income securities from a single sector (e.g., Treasuries) over various maturities (e.g., five and 10 years) at a single point in time (e.g., 12/31/2020).

Portfolio Updates

Introducing Two New ETFs from Avantis

AVGE

Avantis All Equity Markets ETF

Inception September 27, 2022

Expense Ratio¹

Net: 0.23% **Gross: 0.25%** A single solution for global equity market exposure

AVIE

Avantis Inflation Focused Equity ETF

Inception September 27, 2022

Expense Ratio 0.25%

A new option for inflation-sensitive investors

The advisor has agreed to waive 0.02% percentage points of the fund's management fee. The advisor expects this waiver to continue until September 20 2023 and cannot terminate it prior to such date without the approval of the Board of Trustees. The gross expense ratio is the fund's total annual operating costs, expressed as a percentage of the fund's average net assets for a given time period. It is gross of any fee waivers or expense reimbursement. The net expense ratio is the expense ratio after the application of any waivers or reimbursement. This is the actual ratio that investors paid during the fund's most recent fiscal year. Please see the prospectus for more information.

A Note About Risk

AVGE: Historically, small- and/or mid-cap stocks have been more volatile than the stock of larger, more-established companies. Smaller companies may have limited resources, product lines and markets, and their securities may trade less frequently and in more limited volumes than the securities of larger companies. International investing involves special risks, such as political instability and currency fluctuations. Investing in emerging markets may accentuate these risks. **AVIE:** The fund's investments are designed to correlate with inflation. There is no guarantee, however, that the value of the fund's securities will increase over time or that the future investment performance will correlate with inflation. Purchasing power decreases as inflation increases, and the future value of the fund's assets could decline. Further, to the extent the fund's investments do correlate with inflation, the value of the fund's investments could decline if inflation or inflation expectations recede. In addition, the fund invests primarily in a diverse group of U.S. equity companies in market sectors and industry groups the portfolio managers expect to appreciate in value if the U.S. inflation rate rises or is believed to be rising. The fund seeks to focus its investments in those industries that historically have had, or are expected to have, better performance in periods of rising inflation, which generally includes financial services, oil and gas, metals and mining, healthcare, and consumer staples companies. The prospectus contains very important information about the different risks associated with those types of industries and companies.

Performance Overview | Equity Funds

Deturns on of Month End (0)							
Returns as of Month-End (%)						SINCE	INCEPTION
FUND AND BENCHMARK	1 MO	QTD	YTD	1 YR	3 YR	INCEPTION	DATE
U.S. Equity ETF at NAV	10.36	10.36	-13.24	-10.91	11.89	12.28	9/24/2019
U.S. Equity ETF at Market Price	10.36	10.36	-13.21	-10.88	11.89	12.29	
Russell 3000 Index	8.20	8.20	-18.44	-16.52	9.78	10.29	
U.S. Large Cap Value ETF at NAV	12.99	12.99	-6.15	-3.91	N/A	1.83	9/21/2021
U.S. Large Cap Value ETF at Market Price	12.99	12.99	-6.11	-3.85	N/A	1.88	
Russell 1000 Value Index	10.25	10.25	-9.32	-7.00	N/A	-1.67	
U.S. Small Cap Equity ETF at NAV	13.10	13.10	N/A	N/A	N/A	-9.93	1/11/2022
U.S. Small Cap Equity ETF at Market Price	13.11	13.11	N/A	N/A	N/A	-9.86	
Russell 2000 Index	11.01	11.01	N/A	N/A	N/A	-14.92	
U.S. Small Cap Value ETF at NAV	15.47	15.47	-3.07	-1.12	15.96	16.28	9/24/2019
U.S. Small Cap Value ETF at Market Price	15.52	15.52	-3.00	-1.07	15.99	16.31	
Russell 2000 Value Index	12.59	12.59	-11.19	-10.73	8.07	8.61	
Inflation Focused Equity ETF at NAV	14.93	14.93	N/A	N/A	N/A	15.90	9/28/2022
Inflation Focused Equity ETF at Market Price	14.89	14.89	N/A	N/A	N/A	15.96	
Russell 3000 Index	8.20	8.20	N/A	N/A	N/A	6.70	
International Equity ETF at NAV	6.17	6.17	-22.22	-22.46	0.07	0.99	9/24/2019
International Equity ETF at Market Price	6.13	6.13	-22.18	-22.63	0.04	1.04	
MSCI World ex USA IMI Index	5.36	5.36	-23.06	-23.14	-0.60	0.27	
International Large Cap Value ETF at NAV	7.50	7.50	-17.80	-18.18	N/A	-15.13	9/28/2021
International Large Cap Value ETF at Market Price	7.58	7.58	-17.63	-18.21	N/A	-14.90	
MSCI World ex-USA Value Index	6.38	6.38	-15.01	-15.27	N/A	-12.71	
International Small Cap Value ETF at NAV	5.60	5.60	-20.88	-21.64	1.11	2.12	9/24/2019
International Small Cap Value ETF at Market Price	5.51	5.51	-20.80	-21.77	1.13	2.20	
MSCI World ex USA Small Cap Index	4.48	4.48	-27.98	-29.13	-1.15	-0.14	
Data as of 10/21/2022 Performance in LISD not of fees Perios	lo arooter then	one weer b	ove been on	nualized C	ouros: Foot	Cot	

U.S. Equity ETF	AVUS
Expense Ratio (%)	0.15
Total Assets (\$M)	2825.67
U.S. Large Cap Value ETF	AVLV
Expense Ratio (%)	0.15
Total Assets (\$M)	564.65
U.S. Small Cap Equity ETF	AVSC
Expense Ratio (%)	0.25
Total Assets (\$M)	45.59
U.S. Small Cap Value ETF	AVUV
Expense Ratio (%)	0.25
Total Assets (\$M)	4232.38
Inflation Focused Equity ETF	AVIE
Expense Ratio (%)	0.25
Total Assets (\$M)	1.14
International Equity ETF	AVDE
Expense Ratio (%)	0.23
Total Assets (\$M)	1823.37
International Large Cap Value ETF	AVIV
Expense Ratio (%)	0.25
Total Assets (\$M)	105.12
International Small Cap Value ETF	AVDV
Expense Ratio (%)	0.36
Total Assets (\$M)	1797.20

Data as of 10/31/2022. Performance in USD, net of fees. Periods greater than one year have been annualized. Source: FactSet.

For standardized performance as of quarter-end, please see Appendix. Performance data quoted represents past performance and is no guarantee of future results. Current performance may be lower or higher than the performance data quoted. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than original cost. Returns less than one year are not annualized. NAV prices are used to calculate market price performance prior to the date when the fund first traded on the New York Stock Exchange. Market performance is determined using the bid/ask midpoint at 4:00 p.m. Eastern time, when the NAV is typically calculated. Market performance does not represent the returns you would receive if you traded shares at other times. Index performance does not represent the fund's performance. It is not possible to invest directly in an index.

Performance Overview | Equity Funds

Returns as of Month-End (%)						SINCE	INCEPTION
FUND AND BENCHMARK	1 MO	QTD	YTD	1 YR	3 YR	INCEPTION	DATE
Emerging Markets Equity ETF at NAV	-1.81	-1.81	-27.95	-28.13	-2.17	-1.49	9/17/2019
Emerging Markets Equity ETF at Market Price	-1.55	-1.55	-27.95	-27.97	-2.13	-1.41	
MSCI Emerging Markets IMI Index	-2.70	-2.70	-28.77	-30.09	-3.42	-2.50	
Emerging Markets Value ETF at NAV	-0.22	-0.22	-25.16	-24.02	N/A	-22.23	9/28/2021
Emerging Markets Value ETF at Market Price	0.23	0.23	-25.13	-23.77	N/A	-21.99	
MSCI Emerging Markets IMI Value Index	-1.41	-1.41	-23.99	-24.46	N/A	-22.66	
All Equity Markets ETF at NAV	9.17	9.17	N/A	N/A	N/A	8.78	9/27/2022
All Equity Markets ETF at Market Price	9.10	9.10	N/A	N/A	N/A	8.83	
MSCI ACWI IMI	6.15	6.15	N/A	N/A	N/A	5.18	
Real Estate ETF at NAV	2.95	2.95	-27.05	-22.32	N/A	-16.82	9/28/2021
Real Estate ETF at Market Price	2.94	2.94	-26.96	-22.34	N/A	-16.67	
S&P Global REIT	4.07	4.07	-26.35	-22.02	N/A	-16.70	

Emerging Markets Equity ETF	AVEM
Expense Ratio (%)	0.33
Total Assets (\$M)	1518.84
Emerging Markets Value ETF	AVES
Expense Ratio (%)	0.36
Total Assets (\$M)	138.92
All Equity Markets ETF	AVGE
Expense Ratio (%)	0.23*
Total Assets (\$M)	18.36
Real Estate ETF	AVRE
Expense Ratio (%)	0.17
Total Assets (\$M)	166.64

Data as of 10/31/2022. Performance in USD, net of fees. Periods greater than one year have been annualized. Source: FactSet.

For standardized performance as of quarter-end, please see Appendix. Performance data quoted represents past performance and is no guarantee of future results. Current performance may be lower or higher than the performance data quoted. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than original cost. Returns less than one year are not annualized. NAV prices are used to calculate market price performance prior to the date when the fund first traded on the New York Stock Exchange. Market performance is determined using the bid/ask midpoint at 4:00 p.m. Eastern time, when the NAV is typically calculated. Market performance does not represent the returns you would receive if you traded shares at other times. Index performance does not represent the fund's performance. It is not possible to invest directly in an index.

^{*}The advisor has agreed to waive 0.02% percentage points of the fund's management fee. The advisor expects this waiver to continue until September 20 2023 and cannot terminate it prior to such date without the approval of the Board of Trustees. The gross expense ratio is the fund's total annual operating costs, expressed as a percentage of the fund's average net assets for a given time period. It is gross of any fee waivers or expense reimbursement. The net expense ratio is the expense ratio after the application of any waivers or reimbursement. This is the actual ratio that investors paid during the fund's most recent fiscal year. Please see the prospectus for more information.

Performance Overview | Responsible Equity Funds

Returns as of Month-End (%)						SINCE	INCEPTION
FUND AND BENCHMARK	1 MO	QTD	YTD	1 YR	3 YR	INCEPTION	DATE
Responsible U.S. Equity ETF at NAV	8.70	8.70	N/A	N/A	N/A	-8.05	3/15/2022
Responsible U.S. Equity ETF at Market Price	8.69	8.69	N/A	N/A	N/A	-7.97	
Russell 3000 Index	8.20	8.20	N/A	N/A	N/A	-8.29	
Responsible International Equity ETF at NAV	5.74	5.74	N/A	N/A	N/A	-15.14	3/15/2022
Responsible International Equity ETF at Market Price	5.78	5.78	N/A	N/A	N/A	-14.91	
MSCI World ex-USA IMI Index	5.36	5.36	N/A	N/A	N/A	-13.60	
Responsible Emerging Markets Equity ETF at NAV	-1.82	-1.82	N/A	N/A	N/A	-23.09	3/28/2022
Responsible Emerging Markets Equity ETF at Market Price	-1.09	-1.09	N/A	N/A	N/A	-22.68	
MSCI Emerging Markets IMI Index	-2.70	-2.70	N/A	N/A	N/A	-22.49	

Responsible U.S. Equity ETF	AVSU
Expense Ratio (%)	0.15
Total Assets (\$M)	70.56
Responsible Internatoinal Equity ETF	AVSD
Expense Ratio (%)	0.23
Total Assets (\$M)	42.58
Responsible Emerging Markets ETF	AVSE
Expense Ratio (%)	0.33
Total Assets (\$M)	24.65
Expense ratio as of the most recent prospectus. 10/31/2022.	Assets as of

Data as of 10/31/2022. Performance in USD, net of fees. Periods greater than one year have been annualized. Source: FactSet.

The portfolio management team limits its investable universe of companies by screening out those that raise concerns based on the team's evaluation of multiple environmental, social, and corporate governance (ESG) metrics. The portfolio managers utilize ESG data from third-party sources, as well as proprietary evaluations, to decide what securities should be excluded due to ESG concerns. Because the portfolio managers screen securities based on ESG characteristics, the fund may exclude the securities of certain issuers or industry sectors for other than financial reasons and, as a result, the fund may perform differently or maintain a different risk profile than the market generally or compared to funds that do not use similar ESG-based screens. Investing based on ESG considerations may also prioritize long-term rather than short-term returns. Due to the lack of regulation and uniform reporting standards with respect to ESG characteristics of issuers, ESG data may be inconsistent or inaccurate across sources. In addition, all relevant ESG data considered by the team may not be available for an issuer.

For standardized performance as of quarter-end, please see Appendix. Performance data quoted represents past performance and is no guarantee of future results. Current performance may be lower or higher than the performance data quoted. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than original cost. Returns less than one year are not annualized. NAV prices are used to calculate market price performance prior to the date when the fund first traded on the New York Stock Exchange. Market performance is determined using the bid/ask midpoint at 4:00 p.m. Eastern time, when the NAV is typically calculated. Market performance does not represent the returns you would receive if you traded shares at other times. Index performance does not represent the fund's performance. It is not possible to invest directly in an index.

U.S. Equity ETF | Portfolio Composition

Key Characteristics		
Benchmark: Russell 3000 Index	FUND	BENCHMARK
Weighted Average Market Cap	\$293.2 B	\$405.6 B
Weighted Average Book/Market	0.24	0.16
Weighted Average Profits/Book	0.60	0.57
Number of Holdings	2,282	2,967

Data as of 10/31/2022. Source: FactSet.

Size and Style Allocation (%)

FUND		BOOK-TO-MARKET AND PROFITABILITY					
		LOW	MID	HIGH			
	MEGA	4.03	21.97	16.51			
SIZE	LARGE/MID	6.60	22.50	16.75			
	SMALL/MICRO	1.07	6.09	4.18			

BENCHMARK		BOOK-TO-MARKET AND PROFITABILITY		
		LOW	MID	HIGH
	MEGA	10.20	31.97	15.72
SIZE	LARGE/MID	10.84	15.76	6.41
	SMALL/MICRO	1.95	2.64	0.96

Data as of 10/31/2022. Charts show weights in various book/market and profitability buckets (highest 25%, middle 50% and lowest 25%) across market capitalizations. Excludes REITs. Source: FactSet.

Sector Allocation (%)		
	FUND	BENCHMARK
Information Technology	19.44	25.04
Financials	15.97	12.15
Health Care	13.38	15.00
Consumer Discretionary	10.96	10.85
Industrials	10.86	9.38
Energy	10.56	5.45
Consumer Staples	5.23	6.33
Communication Services	5.22	6.87
Materials	4.73	2.84
Utilities	3.44	2.86
Real Estate	0.21	3.24

U.S. Large Cap Value ETF | Portfolio Composition

Key Characteristics		
Benchmark: Russell 1000 Value Index	FUND	BENCHMARK
Weighted Average Market Cap	\$191.4 B	\$147.4 B
Weighted Average Book/Market	0.32	0.25
Weighted Average Profits/Book	0.58	0.32
Number of Holdings	209	849

Data as of 10/31/2022. Source: FactSet.

Size and Style Allocation (%)

FUND		BOOK-TO-MARKET AND PROFITABILITY		
		LOW	MID	HIGH
	MEGA		9.04	37.68
SIZE	LARGE/MID		8.81	43.40
	SMALL/MICRO		0.02	0.87

BENCHMARK		BOOK-TO-MARKET AND PROFITABILITY		
		LOW	MID	HIGH
	MEGA	14.22	18.47	15.55
SIZE	LARGE/MID	13.34	17.50	10.03
	SMALL/MICRO	0.41	0.52	0.34

Data as of 10/31/2022. Charts show weights in various book/market and profitability buckets (highest 25%, middle 50% and lowest 25%) across market capitalizations. Excludes REITs. Source: FactSet.

Sector Allocation (%)		
	FUND	BENCHMARK
Energy	20.53	8.85
Financials	17.17	20.30
Health Care	15.85	17.00
Consumer Discretionary	11.55	6.09
Industrials	10.96	10.35
Information Technology	10.03	8.68
Materials	6.71	4.10
Communication Services	3.90	7.32
Consumer Staples	3.01	7.25
Utilities	0.29	5.55
Real Estate	0.00	4.51

U.S. Small Cap Equity ETF | Portfolio Composition

Key Characteristics		
Benchmark: Russell 2000 Index	FUND	BENCHMARK
Weighted Average Market Cap	\$1.9 B	\$2.8 B
Weighted Average Book/Market	0.47	0.33
Weighted Average Profits/Book	0.26	0.14
Number of Holdings	1,139	1,958

Data as of 10/31/2022. Source: FactSet.

Size and Style Allocation (%)

FUND		BOOK-TO-MARKET AND PROFITABILITY		
		LOW	MID	HIGH
	MEGA			0.08
SIZE	LARGE/MID	0.53	13.36	7.69
	SMALL/MICRO	3.73	45.64	28.65

BENCHMARK		BOOK-TO-MARKET AND PROFITABILITY		
		LOW	MID	HIGH
	MEGA			
SIZE	LARGE/MID	9.49	24.73	8.83
	SMALL/MICRO	10.70	22.41	11.33

Data as of 10/31/2022. Charts show weights in various book/market and profitability buckets (highest 25%, middle 50% and lowest 25%) across market capitalizations. Excludes REITs. Source: FactSet.

Sector Allocation (%)		
	FUND	BENCHMARK
Financials	23.82	17.64
Industrials	16.44	15.25
Consumer Discretionary	12.93	10.51
Health Care	11.72	16.80
Information Technology	10.25	12.76
Energy	9.45	6.99
Materials	5.33	4.16
Consumer Staples	4.17	3.51
Communication Services	3.43	2.69
Utilities	1.70	3.33
Real Estate	0.75	6.37

U.S. Small Cap Value ETF | Portfolio Composition

Key Characteristics		
Benchmark: Russell 2000 Value Index	FUND	BENCHMARK
Weighted Average Market Cap	\$2.9 B	\$2.4 B
Weighted Average Book/Market	0.65	0.52
Weighted Average Profits/Book	0.41	0.13
Number of Holdings	689	1,387

Data as of 10/31/2022. Source: FactSet.

Size and Style Allocation (%)

FUND		BOOK-TO-MARKET AND PROFITABILITY		
		LOW	MID	HIGH
	MEGA			0.07
SIZE	LARGE/MID	0.03	2.93	13.14
	SMALL/MICRO	0.08	12.37	71.26

BENCHMARK MEGA		BOOK-TO-MARKET AND PROFITABILITY			
		LOW	MID	HIGH	
MEGA					
SIZE	LARGE/MID	1.34	4.37	3.67	
	SMALL/MICRO	10.31	36.30	27.50	

Data as of 10/31/2022. Charts show weights in various book/market and profitability buckets (highest 25%, middle 50% and lowest 25%) across market capitalizations. Excludes REITs. Source: FactSet.

Sector Allocation (%)		
	FUND	BENCHMARK
Financials	29.47	29.53
Consumer Discretionary	17.13	9.85
Industrials	16.33	12.94
Energy	15.96	6.31
Materials	6.86	3.84
Information Technology	4.93	5.58
Health Care	3.69	10.65
Consumer Staples	2.80	2.76
Communication Services	1.99	2.99
Real Estate	0.78	10.63
Utilities	0.07	4.93

Inflation Focused Equity ETF | Portfolio Composition

Key Characteristics		
Benchmark: Russell 3000 Index	FUND	BENCHMARK
Weighted Average Market Cap	\$175.2 B	\$405.6 B
Weighted Average Book/Market	0.27	0.16
Weighted Average Profits/Book	0.65	0.57
Number of Holdings	345	2,967
Data as of 10/31/2022. Source: FactSet.		

Size and Style Allocation (%)

FUND		BOOK-TO-MARKET AND PROFITABILITY			
		LOW	MID	HIGH	
	MEGA	10.35	19.70	20.25	
SIZE	LARGE/MID	4.01	20.62	19.02	
	SMALL/MICRO	0.90	2.43	1.80	

BENCHMARK		BOOK-TO-MARKET AND PROFITABILITY			
		LOW	MID	HIGH	
	MEGA	10.20	31.97	15.72	
SIZE	LARGE/MID	10.84	15.76	6.41	
	SMALL/MICRO	1.95	2.64	0.96	

Data as of 10/31/2022. Charts show weights in various book/market and profitability buckets (highest 25%, middle 50% and lowest 25%) across market capitalizations. Excludes REITs. Source: FactSet.

Sector Allocation (%)		
	FUND	BENCHMARK
Health Care	29.14	15.00
Energy	28.52	5.45
Consumer Staples	18.36	6.33
Financials	14.80	12.15
Materials	8.53	2.84
Real Estate	0.64	3.24
Communication Services	0.00	6.87
Consumer Discretionary	0.00	10.85
Industrials	0.00	9.38
Information Technology	0.00	25.04
Utilities	0.00	2.86

International Equity ETF | Portfolio Composition

Key Characteristics		
Benchmark: MSCI World ex USA IMI	FUND	BENCHMARK
Weighted Average Market Cap	\$40.7 B	\$57.9 B
Weighted Average Book/Market	0.63	0.48
Weighted Average Profits/Book	0.33	0.30
Number of Holdings	3,397	3,450

Data as of 10/31/2022. Source: FactSet.

Size and Style Allocation (%)

FUND		BOOK-TO-MARKET AND PROFITABILITY			
		LOW	MID	HIGH	
	MEGA	3.33	20.10	10.81	
SIZE	LARGE/MID	6.60	22.70	20.32	
	SMALL/MICRO	1.19	7.20	6.96	

BENCHMARK		BOOK-TO-MARKET AND PROFITABILITY			
		LOW	MID	HIGH	
MEGA		9.91	28.87	11.02	
SIZE	LARGE/MID	10.97	18.27	9.76	
	SMALL/MICRO	2.47	3.91	2.05	

Data as of 10/31/2022. Charts show weights in various book/market and profitability buckets (highest 25%, middle 50%, and lowest 25%) across market capitalizations. Excludes REITs. Source: FactSet.

Sector Allocation (%)		
	FUND	BENCHMARK
Financials	20.45	18.63
Industrials	16.65	15.85
Materials	11.55	8.21
Consumer Discretionary	10.25	10.28
Energy	8.84	6.74
Health Care	8.27	11.42
Consumer Staples	6.83	9.47
Information Technology	6.42	7.95
Communication Services	4.46	4.39
Utilities	4.20	3.42
Real Estate	2.08	3.63

Data as of 10/31/2022. Source: FactSet.

T	op .	5 C	Count	try A	ΑII	ocat	ions	(%))
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	FUND	BENCHMARK
Japan	20.29	20.69
United Kingdom	13.73	13.77
Canada	11.74	11.62
France	9.34	9.34
Switzerland	8.50	8.53

International Large Cap Value ETF | Portfolio Composition

Key Characteristics		
Benchmark: MSCI World ex-USA Value	FUND	BENCHMARK
Weighted Average Market Cap	\$46.7 B	\$59.0 B
Weighted Average Book/Market	0.78	0.71
Weighted Average Profits/Book	0.38	0.27
Number of Holdings	437	504

Data as of 10/31/2022. Source: FactSet.

Size and Style Allocation (%)

FUND		BOOK-TO-MARKET AND PROFITABILITY		
		LOW	MID	HIGH
	MEGA	0.19	15.83	24.89
S	LARGE/MID	0.17	12.42	43.80
	SMALL/MICRO		0.53	1.65

BENCH	HMARK	BOOK-TO-MARKET AND PROFITABILITY		
		LOW	MID	HIGH
	MEGA	7.50	34.16	18.32
SIZE	LARGE/MID	6.30	16.62	14.47
	SMALL/MICRO	0.10	0.25	0.28

Data as of 10/31/2022. Charts show weights in various book/market and profitability buckets (highest 25%, middle 50%, and lowest 25%) across market capitalizations. Excludes REITs. Source: FactSet.

Sector Allocation (%)		
	FUND	BENCHMARK
Financials	23.30	29.77
Energy	15.96	11.92
Materials	15.59	8.58
Industrials	13.66	9.02
Consumer Discretionary	11.39	7.46
Health Care	5.47	8.51
Communication Services	5.05	5.47
Information Technology	4.22	2.42
Consumer Staples	2.08	7.35
Real Estate	1.70	3.73
Utilities	1.57	5.77

Data as of 10/31/2022. Source: FactSet.

Top 5 Country Allocations (%)
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	FUND	BENCHMARK
Japan	19.80	19.49
United Kingdom	19.21	19.20
Canada	11.66	11.68
Germany	8.98	9.30
France	7.80	7.93

International Small Cap Value ETF | Portfolio Composition

Key Characteristics		
Benchmark: MSCI World ex USA Small Cap Index	FUND	BENCHMARK
Weighted Average Market Cap	\$1.9 B	\$2.3 B
Weighted Average Book/Market	1.00	0.64
Weighted Average Profits/Book	0.34	0.23
Number of Holdings	1,256	2,563

Data as of 10/31/2022. Source: FactSet.

Size and Style Allocation (%)

FUND		BOOK-TO-MARKET AND PROFITABILITY		
		LOW	MID	HIGH
	MEGA			
SIZE	LARGE/MID	0.49	3.48	8.11
	SMALL/MICRO	0.52	17.76	68.99

BENCHMARK		BOOK-TO-MARKET AND PROFITABILITY		
		LOW	MID	HIGH
	MEGA	0.25	1.08	0.15
SIZE	LARGE/MID	6.42	12.80	6.24
	SMALL/MICRO	15.71	32.35	16.03

Data as of 10/31/2022. Charts show weights in various book/market and profitability buckets (highest 25%, middle 50% and lowest 25%) across market capitalizations. Excludes REITs. Source: FactSet.

Sector Allocation (%)		
	FUND	BENCHMARK
Industrials	20.53	21.40
Financials	18.90	11.39
Materials	18.53	11.15
Consumer Discretionary	11.67	11.14
Energy	11.19	5.25
Consumer Staples	4.49	6.01
Information Technology	4.45	8.77
Real Estate	3.16	11.16
Communication Services	2.95	3.67
Health Care	2.32	6.43
Utilities	1.80	3.63

Data as of 10/31/2022. Source: FactSet.

Top 5 Country Allocations (%)

	FUND	BENCHMARK
Japan	27.06	27.83
United Kingdom	13.72	13.57
Canada	11.15	10.79
Australia	9.62	9.81
Sweden	5.19	4.93

Emerging Markets Equity ETF | Portfolio Composition

Key Characteristics		
Benchmark: MSCI Emerging Markets IMI Index	FUND	BENCHMARK
Weighted Average Market Cap	\$38.9 B	\$66.5 B
Weighted Average Book/Market	0.73	0.58
Weighted Average Profits/Book	0.28	0.25
Number of Holdings	3,248	3,210

Size and Style Allocation (%)

Data as of 10/31/2022. Source: FactSet.

FUND		BOOK-TO-MARKET AND PROFITABILITY			
		LOW	MID	HIGH	
	MEGA	4.03	19.41	14.02	
SIZE	LARGE/MID	6.67	14.42	13.59	
	SMALL/MICRO	3.32	11.21	12.95	

BENCHMARK		BOOK-TO-MARKET AND PROFITABILITY			
		LOW	MID	HIGH	
	MEGA	8.47	29.75	13.51	
SIZE	LARGE/MID	10.07	12.91	7.79	
	SMALL/MICRO	4.56	6.14	4.29	

Data as of 10/31/2022. Charts show weights in various book/market and profitability buckets (highest 25%, middle 50% and lowest 25%) across market capitalizations. Excludes REITs. Source: FactSet.

Sector Allocation (%)		
	FUND	BENCHMARK
Financials	19.38	21.98
Information Technology	18.15	18.59
Consumer Discretionary	12.25	12.32
Materials	11.38	9.70
Industrials	9.74	7.37
Communication Services	6.29	7.99
Energy	5.99	5.18
Consumer Staples	5.95	6.53
Health Care	4.55	4.67
Utilities	3.99	3.30
Real Estate	2.32	2.38

Data as of 10/31/2022. Source: FactSet.

Top 5 Country Allocations (%	6)	
	FUND	BENCHMARK
China	23.96	24.25
India	19.28	17.49
Taiwan	16.26	14.21
South Korea	13.46	12.05
Brazil	7.70	6.60

Emerging Markets Value ETF | Portfolio Composition

Key Characteristics		
Benchmark: MSCI Emerging Markets IMI Value Index	FUND	BENCHMARK
Weighted Average Market Cap	\$10.5 B	\$58.1 B
Weighted Average Book/Market	0.92	0.94
Weighted Average Profits/Book	0.31	0.22
Number of Holdings	1,370	1,917
Data as of 10/31/2022. Source: FactSet.		

Size and Style Allocation (%)

FUND		BOOK-TO-MARKET AND PROFITABILITY		
		LOW	MID	HIGH
	MEGA	0.19	6.75	18.99
SIZE	LARGE/MID	1.69	11.99	26.08
	SMALL/MICRO	1.71	9.31	23.08

BENCHMARK		BOOK-TO-MARKET AND PROFITABILITY			
		LOW	MID	HIGH	
	MEGA	3.48	20.06	22.53	
SIZE	LARGE/MID	7.92	10.19	9.76	
	SMALL/MICRO	3.28	6.39	6.07	

Data as of 10/31/2022. Charts show weights in various book/market and profitability buckets (highest 25%, middle 50% and lowest 25%) across market capitalizations. Excludes REITs. Source: FactSet.

Sector Allocation (%)		
	FUND	BENCHMARK
Financials	23.75	27.86
Materials	16.80	11.33
Information Technology	14.46	14.26
Industrials	12.39	7.03
Consumer Discretionary	8.26	11.03
Energy	6.91	8.26
Communication Services	5.72	5.05
Health Care	3.74	2.89
Consumer Staples	3.64	4.89
Real Estate	2.44	3.44
Utilities	1.87	3.96

Data as of 10/31/2022. Source: FactSet.

Top 5 Country Allocations (%)
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	FUND	BENCHMARK
China	24.39	23.46
India	19.87	17.61
Taiwan	16.60	14.02
South Korea	12.99	12.39
Brazil	7.54	6.73

Real Estate ETF | Portfolio Composition

Key Characteristics		
Benchmark: S&P Global REIT	FUND	BENCHMARK
Weighted Average Market Cap	\$27.2 B	\$20.5 B
Weighted Average Market Leverage	0.49	0.60
Number of Holdings	294	437

Data as of 10/31/2022. Source: FactSet.

Sector Allocation (%)		
	FUND	BENCHMARK
Specialized REITs	26.69	18.51
Industrial REITs	16.57	17.60
Retail REITs	16.78	18.27
Residential REITs	14.43	14.80
Diversified REITs	8.58	9.65
Office REITs	7.32	9.82
Health Care REITs	6.96	7.84
Hotel & Resort REITs	2.66	3.50

Data as of 10/31/2022. Source: FactSet.

Top 5 Country Allocations (%)		
	FUND	BENCHMARK
United States	69.28	70.55
Japan	7.78	7.80
Australia	6.21	5.74
United Kingdom	4.33	4.20
Singapore	3.79	3.12

Responsible U.S. Equity ETF | Portfolio Composition

Key Characteristics		
Benchmark: Russell 3000 Index	FUND	BENCHMARK
Weighted Average Market Cap	\$326.7 B	\$405.6 B
Weighted Average Book/Market	0.21	0.16
Weighted Average Profits/Book	0.63	0.57
Number of Holdings	1,292	2,967

Data as of 10/31/2022. Source: FactSet.

Size and Style Allocation (%)

FUND		BOOK-T	ГО-MARKET AND PROFITABILITY		
		LOW	MID	HIGH	
	MEGA	4.44	24.64	16.33	
SIZE	LARGE/MID	6.65	25.05	12.56	
	SMALL/MICRO	0.84	5.21	3.95	

BENC	HMARK	BOOK-TO-MARKET AND PROFITABILITY		
		LOW	MID	HIGH
	MEGA	10.20	31.97	15.72
SIZE	LARGE/MID	10.84	15.76	6.41
	SMALL/MICRO	1.95	2.64	0.96

Data as of 10/31/2022. Charts show weights in various book/market and profitability buckets (highest 25%, middle 50% and lowest 25%) across market capitalizations. Excludes REITs. Source: FactSet.

Sector Allocation (%)		
	FUND	BENCHMARK
Information Technology	24.27	25.04
Financials	20.39	12.15
Health Care	15.59	15.00
Consumer Discretionary	14.36	10.85
Industrials	10.38	9.38
Communication Services	6.05	6.87
Consumer Staples	5.61	6.33
Materials	2.23	2.84
Utilities	0.55	2.86
Real Estate	0.29	3.24
Energy	0.27	5.45

Data as of 10/31/2022. Source: FactSet.

ESG Controversies Exposure (%)

Responsibility Metrics

nooponoionity monitor		
	FUND	BENCHMARK
Carbon Emission Intensity (t CO ₂ /revenue)	41.39	155.93
Oil and Gas Revenue (%)	0.16	6.01

Data as of 10/31/2022. Source: FactSet. See Responsible Data Descriptions and Disclosures in the Appendix for additional information.

0.00

6.88

Responsible International Equity ETF | Portfolio Composition

Key Characteristics		
Benchmark: MSCI World ex USA IMI	FUND	BENCHMARK
Weighted Average Market Cap	\$39.9 B	\$57.9 B
Weighted Average Book/Market	0.60	0.48
Weighted Average Profits/Book	0.32	0.30
Number of Holdings	2,249	3,450
D		

Data as of 10/31/2022. Source: FactSet.

Size and Style Allocation (%)

FUND BOOK-TO-MARKET AND PROFITABIL		ABILITY		
		LOW	MID	HIGH
	MEGA	2.62	22.54	7.24
SIZE	LARGE/MID	6.61	25.42	18.00
	SMALL/MICRO	1.34	9.06	6.41

BENCI	HMARK	BOOK-TO-MARKET AND PROFITABILITY		
		LOW	MID	HIGH
	MEGA	9.91	28.87	11.02
SIZE	LARGE/MID	10.97	18.27	9.76
	SMALL/MICRO	2.47	3.91	2.05

Data as of 10/31/2022. Charts show weights in various book/market and profitability buckets (highest 25%, middle 50% and lowest 25%) across market capitalizations. Excludes REITs. Source: FactSet.

Sector Allocation (%)		
	FUND	BENCHMARK
Financials	27.41	18.63
Industrials	16.12	15.85
Consumer Discretionary	13.43	10.28
Health Care	9.30	11.42
Information Technology	7.99	7.95
Consumer Staples	7.40	9.47
Materials	7.26	8.21
Communication Services	5.74	4.39
Real Estate	2.80	3.63
Utilities	2.07	3.42
Energy	0.48	6.74

Responsibility Metrics		
	FUND	BENCHMARK
Carbon Emission Intensity (t CO ₂ /revenue)	60.23	171.06
Oil and Gas Revenue (%)	0.22	7.64
ESG Controversies Exposure (%)	0.00	9.99

Data as of 10/31/2022. Source: FactSet.

Data as of 10/31/2022. Source: FactSet. See Responsible Data Descriptions and Disclosures in the Appendix for additional information.

Responsible Emerging Markets Equity ETF | Portfolio Composition

Key Characteristics		
Benchmark: MSCI Emerging Markets IMI Index	FUND	BENCHMARK
Weighted Average Market Cap	\$38.7 B	\$66.5 B
Weighted Average Book/Market	0.72	0.58
Weighted Average Profits/Book	0.28	0.25
Number of Holdings	2,258	3,210

Data as of 10/31/2022. Source: FactSet.

Size and Style Allocation (%)

FUND		BOOK-TO-MARKET AND PROFITABILITY			
		LOW	MID	HIGH	
SIZE	MEGA	3.32	21.19	10.36	
	LARGE/MID	5.90	15.30	11.98	
	SMALL/MICRO	2.72	13.56	15.42	

BENCHMARK		BOOK-TO-MARKET AND PROFITABILITY			
		LOW	MID	HIGH	
SIZE	MEGA	8.47	29.75	13.51	
	LARGE/MID	10.07	12.91	7.79	
	SMALL/MICRO	4.56	6.14	4.29	

Data as of 10/31/2022. Charts show weights in various book/market and profitability buckets (highest 25%, middle 50% and lowest 25%) across market capitalizations. Excludes REITs. Source: FactSet.

			Sector Allocation (%)
CHMARK	BENCHM	FUND	
1.98	21.98	24.32	Financials
8.59	18.59	20.36	Information Technology
2.32	12.32	14.65	Consumer Discretionary
7.37	7.37	9.76	Industrials
'.99	7.99	7.38	Communication Services
5.53	6.53	6.81	Consumer Staples
.70	9.70	5.83	Materials
1.67	4.67	5.32	Health Care
2.38	2.38	3.33	Real Estate
3.30	3.30	2.10	Utilities
5.18	5.18	0.13	Energy
			Energy

Data as of 10/31/2022. Source: FactSet.

Responsibility Metrics

	FUND	BENCHMARK
Carbon Emission Intensity (t CO ₂ /revenue)	109.31	378.05
Oil and Gas Revenue (%)	0.04	5.04
ESG Controversies Exposure (%)	0.00	5.97

Data as of 10/31/2022. Source: FactSet. See Responsible Data Descriptions and Disclosures in the Appendix for additional information.

Performance Overview | Fixed Income Funds

Returns as of Month-End (%)					SINCE	INCEPTION
FUND AND BENCHMARK	1 MO	QTD	YTD	1 YR	INCEPTION	DATE
Core Fixed Income ETF at NAV	-1.00	-1.00	-16.61	-16.65	-9.02	10/13/2020
Core Fixed Income ETF at Market Price	-0.92	-0.92	-16.62	-16.66	-8.99	
Bloomberg U.S. Aggregate Bond Index	-1.30	-1.30	-15.72	-15.68	-8.43	
Short Term Fixed Income ETF at NAV	-0.29	-0.29	-6.97	-7.19	-3.79	10/13/2020
Short Term Fixed Income ETF at Market Price	-0.16	-0.16	-7.03	-7.25	-3.77	
Bloomberg U.S. 1-5 Year Gov/Credit Index	-0.23	-0.23	-6.84	-7.03	-3.72	
Core Municipal Fixed Income ETF at NAV	-0.52	-0.52	-11.64	-10.86	-5.93	12/8/2020
Core Municipal Fixed Income ETF at Market Price	-0.30	-0.30	-11.54	-10.88	-5.90	
S&P National AMT-Free Municipal Bond Index	-0.67	-0.67	-12.14	-11.33	-5.64	

Data as of 10/31/2022.	Performance in USD, net of fe	es. Periods greater than one	year have been annualized. Source:	FactSet.

Core Fixed Income ETF	AVIG
Expense Ratio (%)	0.15
Total Assets (\$M)	224.01
Short Term Fixed Income ETF	AVSF
Expense Ratio (%)	0.15
Total Assets (\$M)	138.66
Core Municipal Fixed Income ETF	AVMU
Expense Ratio (%)	0.15
Total Assets (\$M)	39.44
Expense ratio as of the most recent prospectus. 10/31/2022.	. Assets as of

Core Fixed Income ETF | Portfolio Composition

Key Characteristics		
Benchmark: Bloomberg U.S. Aggregate Bond Index	FUND	BENCHMARK
Effective Duration (years)	6.19	6.25
Yield to Maturity (%)	5.32	4.97
SEC Yield (%)	4.89	N/A
OAS (bps)	89	59
Holdings	419	12,671

Data as of 10/31/2022 Source: American Century Investments, Bloomberg Index Services Ltd., State Street. *Data is preliminary and subject to change.

Sector Allocation		
	FUND	BENCHMARK
Government	24.95%	41.03%
Agencies	2.38%	1.26%
Securitized	19.67%	29.84%
Credit	63.10%	26.62%
Emerging Markets	0.22%	1.24%
Cash and Cash Equivalents	-10.32%	0.00%

Data as of 10/31/2022 Source: American Century Investments, Bloomberg Index Services Ltd. *Data is preliminary and subject to change.

Credit Quality		
	FUND	BENCHMARK
U.S. Government	47.00%	70.43%
AAA	3.92%	3.43%
AA	5.28%	2.74%
A	25.76%	10.86%
BBB	28.36%	12.47%
BB	0.00%	0.00%
NR	0.00%	0.06%
Cash and Cash Equivalents	-10.32%	0.00%

Data as of 10/31/2022 Source: American Century Investments, Bloomberg Index Services Ltd. *Data is preliminary and subject to change.

Duration Breakdown		
YEARS	FUND	BENCHMARK
0-2	-2.09%	13.08%
2-4	23.37%	19.79%
4-6	41.77%	22.27%
6-8	26.44%	25.26%
8-10	3.04%	5.09%
10-15	5.36%	8.88%
15+	2.11%	5.63%

Data as of 10/31/2022 Source: American Century Investments, Bloomberg Index Services Ltd. *Data is preliminary and subject to change.

Short-Term Fixed Income ETF | Portfolio Composition

Key Characteristics		
Benchmark: Bloomberg 1-5 Year US Gov/Credit Index	FUND	BENCHMARK
Effective Duration (years)	2.53	2.62
Yield to Maturity (%)	5.07	4.80
SEC Yield (%)	4.86	N/A
OAS (bps)	56	31
Holdings	283	3,295

Data as of 10/31/2022 Source: American Century Investments, Bloomberg Index Services Ltd., State Street. *Data is preliminary and subject to change.

Sector Allocation		
	FUND	BENCHMARK
Government	30.10%	65.34%
Agencies	2.14%	2.80%
Securitized	0.00%	0.00%
Credit	67.56%	30.92%
Emerging Markets	0.00%	0.93%
Cash and Cash Equivalents	0.20%	0.00%

Data as of 10/31/2022 Source: American Century Investments, Bloomberg Index Services Ltd. *Data is preliminary and subject to change.

Credit Quality		
	FUND	BENCHMARK
U.S. Government	32.24%	68.00%
AAA	4.46%	4.00%
AA	8.40%	3.12%
A	33.30%	12.92%
BBB	21.40%	11.92%
ВВ	0.00%	0.00%
NR	0.00%	0.03%
Cash and Cash Equivalents	0.20%	0.00%

Data as of 10/31/2022 Source: American Century Investments, Bloomberg Index Services Ltd. *Data is preliminary and subject to change.

Duration Breakdown		
YEARS	FUND	BENCHMARK
0-2	30.52%	34.90%
2-4	62.14%	50.96%
4-6	7.34%	14.13%

Data as of 10/31/2022 Source: American Century Investments, Bloomberg Index Services Ltd. *Data is preliminary and subject to change.

Core Municipal Fixed Income ETF | Portfolio Composition

Key Characteristics		
Benchmark: S&P National AMT-Free Municipal Bond Index	FUND	BENCHMARK
Effective Duration (years)	6.54	6.96
Yield to Maturity (%)	4.22	4.32
SEC Yield (%)	3.56	N/A
Holdings	548	13,125

Data as of 10/31/2022 Source: American Century Investments, S&P Dow Jones Indices LLC, State Street. *Data is preliminary and subject to change.

Top 5 Sectors

	FUND	BENCHMARK
Special Tax	23.61%	22.85%
Local GO	13.91%	13.30%
State GO	13.48%	18.73%
Water & Sewer	8.83%	9.31%
Public Power	6.94%	5.45%

Data as of 10/31/2022 Source: American Century Investments, S&P Dow Jones Indices LLC *Data is preliminary and subject to change.

Top 5 States

	FUND	BENCHMARK
CA	19.36%	19.66%
NY	15.97%	24.42%
TX	8.58%	8.97%
DC	4.04%	1.63%
NJ	3.97%	5.10%

Data as of 10/31/2022 Source: American Century Investments, S&P Dow Jones Indices LLC *Data is preliminary and subject to change.

Credit Quality		
	FUND	BENCHMARK
AAA	13.32%	15.29%
AA	65.42%	60.30%
A	20.15%	19.46%
BBB	0.92%	4.25%
ВВ	0.00%	0.00%
В	0.00%	0.00%
NR	0.12%	0.70%
Cash and Cash Equivalents	0.06%	0.00%

Data as of 10/31/2022 Source: American Century Investments, S&P Dow Jones Indices LLC *Data is preliminary and subject to change.

Duration	Brea	kd	own

YEARS	FUND	BENCHMARK
0-2	10.02%	17.81%
2-4	18.93%	17.29%
4-6	18.40%	13.29%
6-8	15.48%	10.61%
8-10	14.33%	9.48%
10-15	22.84%	29.53%
15+	0.00%	1.98%

Data as of 10/31/2022 Source: American Century Investments, S&P Dow Jones Indices LLC *Data is preliminary and subject to change.

Appendix

Standardized Performance | Equity Funds

Returns as of Quarter-End (%) FUND AND BENCHMARK	1 140	OTD	VTD	1 VD	2 VD	SINCE	INCEPTION
U.S. Equity ETF at NAV	1 MO -9.09	QTD -3.81	-21.39	1 YR -14.20	3 YR 8.99	9.02	9/24/2019
U.S. Equity ETF at Market Price	-9.09 -9.04	-3.83	-21.36	-14.20	9.01	9.02	9/ 24/ 2019
Russell 3000 Index	-9.27	-4.46	-24.62	-17.63	7.69	7.74	
U.S. Large Cap Value ETF at NAV	-8.76	-3.17	-16.94	-9.45	N/A	-9.48	9/21/2021
U.S. Large Cap Value ETF at Market Price	-8.70	-3.16	-16.91	-9.39	N/A	-9.43	,, _ ,, _ 0
Russell 1000 Value Index	-8.77	-5.62	-17.75	-11.36	N/A	-10.73	
U.S. Small Cap Equity ETF at NAV	-9.55	-3.53	N/A	N/A	N/A	-20.36	1/11/2022
U.S. Small Cap Equity ETF at Market Price	-9.51	-3.46	N/A	N/A	N/A	-20.31	
Russell 2000 Index	-9.58	-2.19	N/A	N/A	N/A	-23.36	
U.S. Small Cap Value ETF at NAV	-10.26	-2.79	-16.05	-10.90	11.36	11.34	9/24/2019
U.S. Small Cap Value ETF at Market Price	-10.21	-2.75	-16.03	-10.89	11.38	11.36	
Russell 2000 Value Index	-10.19	-4.61	-21.12	-17.69	4.72	4.67	
Inflation Focused Equity ETF at NAV	N/A	N/A	N/A	N/A	N/A	0.84	9/28/2022
Inflation Focused Equity ETF at Market Price	N/A	N/A	N/A	N/A	N/A	0.93	
Russell 3000 Index	N/A	N/A	N/A	N/A	N/A	-1.39	
International Equity ETF at NAV	-9.93	-10.46	-26.74	-24.52	-0.80	-0.97	9/24/2019
International Equity ETF at Market Price	-9.83	-10.49	-26.68	-24.54	-0.76	-0.90	
MSCI World ex USA IMI Index	-9.58	-9.23	-26.97	-24.99	-1.23	-1.45	
International Large Cap Value ETF at NAV	-9.63	-10.62	-23.53	-21.88	N/A	-22.12	9/28/2021
International Large Cap Value ETF at Market Price	-9.54	-10.53	-23.43	-21.92	N/A	-21.93	
MSCI World ex-USA Value Index	-8.99	-10.22	-20.10	-18.58	N/A	-18.86	
International Small Cap Value ETF at NAV	-10.78	-9.93	-25.08	-23.98	0.82	0.36	9/24/2019
International Small Cap Value ETF at Market Price	-10.56	-9.89	-24.94	-23.92	0.93	0.47	
MSCI World ex USA Small Cap Index	-11.41	-9.46	-31.07	-30.80	-1.27	-1.59	

Data as of 9/30/2022. Performance in USD, net of fees. Periods greater than one year have been annualized. Source: FactSet.

Standardized Performance | Equity Funds

D :							
Returns as of Quarter-End (%)						SINCE	INCEPTION
FUND AND BENCHMARK	1 MO	QTD	YTD	1 YR	3 YR	INCEPTION	DATE
Emerging Markets ETF at NAV	-11.14	-11.28	-26.62	-26.49	-0.28	-0.94	9/17/2019
Emerging Markets ETF at Market Price	-10.87	-11.80	-26.81	-26.77	-0.24	-0.94	
MSCI Emerging Markets IMI Index	-11.50	-10.79	-26.79	-27.51	-1.20	-1.69	
Emerging Markets Value ETF at NAV	-11.03	-11.09	-25.00	-23.86	N/A	-23.70	9/28/2021
Emerging Markets Value ETF at Market Price	-11.16	-11.65	-25.30	-24.31	N/A	-23.78	
MSCI Emerging Markets IMI Value Index	-10.14	-10.17	-22.90	-23.20	N/A	-23.25	
All Equity Markets ETF at NAV	N/A	N/A	N/A	N/A	N/A	-0.36	9/27/2022
All Equity Markets ETF at Market Price	N/A	N/A	N/A	N/A	N/A	-0.25	
MSCI ACWI IMI	N/A	N/A	N/A	N/A	N/A	-0.92	
Real Estate ETF at NAV	-12.81	-11.59	-29.14	-19.81	N/A	-20.44	9/28/2021
Real Estate ETF at Market Price	-12.73	-11.54	-29.05	-19.73	N/A	-20.28	
S&P Global REIT	-12.73	-11.12	-29.23	-20.49	N/A	-21.17	

Data as of 9/30/2022. Performance in USD, net of fees. Periods greater than one year have been annualized. Source: FactSet.

Standardized Performance | Responsible Equity Funds

Returns as of Quarter-End (%)							
						SINCE	INCEPTION
FUND AND BENCHMARK	1 MO	QTD	YTD	1 YR	3 YR	INCEPTION	DATE
Responsible U.S. Equity ETF at NAV	-8.73	-4.42	N/A	N/A	N/A	-15.41	3/15/2022
Responsible U.S. Equity ETF at Market Price	-8.68	-4.42	N/A	N/A	N/A	-15.33	
Russell 3000 Index	-9.27	-4.46	N/A	N/A	N/A	-15.24	
Responsible International Equity ETF at NAV	-10.17	-10.98	N/A	N/A	N/A	-19.74	3/15/2022
Responsible International Equity ETF at Market Price	-10.09	-11.00	N/A	N/A	N/A	-19.56	
MSCI World ex-USA IMI Index	-9.58	-9.23	N/A	N/A	N/A	-18.00	
Responsible Emerging Markets Equity ETF at NAV	-10.94	-11.56	N/A	N/A	N/A	-21.66	3/28/2022
Responsibler Emerging Markets Equity ETF at Market Pric	-11.19	-12.06	N/A	N/A	N/A	-21.83	
MSCI Emerging Markets IMI Index	-11.50	-10.79	N/A	N/A	N/A	-20.34	

Data as of 9/30/2022. Performance in USD, net of fees. Periods greater than one year have been annualized. Source: FactSet.

Standardized Performance | Fixed Income Funds

Returns as of Quarter-End (%)						
Thoramo do or quartor and (10)					SINCE	INCEPTION
FUND AND BENCHMARK	1 MO	QTD	YTD	1 YR	INCEPTION	DATE
Core Fixed Income ETF at NAV	-4.65	-4.84	-15.77	-16.16	-8.93	10/13/2020
Core Fixed Income ETF at Market Price	-4.51	-4.86	-15.85	-16.15	-8.93	
Bloomberg U.S. Aggregate Bond Index	-4.32	-4.75	-14.61	-14.60	-8.17	
Short Term Fixed Income ETF at NAV	-1.84	-1.93	-6.71	-7.41	-3.81	10/13/2020
Short Term Fixed Income ETF at Market Price	-1.80	-2.11	-6.88	-7.54	-3.85	
Bloomberg U.S. 1-5 Year Gov/Credit Index	-1.80	-2.16	-6.62	-7.29	-3.76	
Core Municipal Fixed Income ETF at NAV	-3.22	-2.84	-11.18	-10.59	-5.93	12/8/2020
Core Municipal Fixed Income ETF at Market Price	-3.38	-3.10	-11.27	-10.78	-6.01	
S&P National AMT-Free Municipal Bond Index	-3.39	-3.28	-11.55	-10.80	-5.54	

Data as of 9/30/2022. Performance in USD, net of fees. Periods greater than one year have been annualized. Source: FactSet.

Glossary

Agencies: Agency securities are debt securities issued by U.S. government agencies such as the Federal Home Loan Bank and the Federal Farm Credit Bank. Some agency securities are backed by the full faith and credit of the U.S. government, while others are guaranteed only by the issuing agency.

Basis points (BPS): Basis points are used in financial literature to express values that are carried out to two decimal places (hundredths of a percentage point), particularly ratios, such as yields, fees, and returns. Basis points describe values that are typically on the right side of the decimal point—one basis point equals one one-hundredth of a percentage point (0.01%).

Bloomberg Global Aggregate Bond Index: A flagship measure of global investment-grade debt from 24 local currency markets. This multicurrency benchmark includes Treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

Bloomberg Global U.S. Treasury - U.S. TIPS Index: Consists of Treasury inflation-protected securities issued by the U.S. Treasury with a remaining maturity of one year or more.

Bloomberg Municipal Bond Index: A market value-weighted index designed for the long-term tax-exempt bond market.

Bloomberg U.S. 1-3 Month Treasury Bill Index: A subindex of the Bloomberg Barclays U.S. Short Treasury Index, the Bloomberg Barclays U.S. 1-3 Month Treasury Bill Index is composed of zero-coupon Treasury bills with a maturity between one and three months.

Bloomberg 1-5 Year U.S. Government/Credit Index: Tracks the market for investment grade, US dollar-denominated, fixed-rate treasuries, government-related and corporate securities.

Bloomberg U.S. Aggregate Bond Index: Represents securities that are taxable, registered with the Securities and Exchange Commission, and U.S. dollar-denominated. The index covers the U.S. investment-grade fixed-rate bond market, with index components for government and corporate securities, mortgage pass-through securities and asset-backed securities.

Bloomberg U.S. Corporate Bond Index: Measures the investment-grade, fixed-rate, taxable corporate bond market. It includes U.S. dollar-denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers.

Bloomberg U.S. Corporate High Yield Bond Index: Measures the U.S. dollar-denominated, high-yield (non-investment grade), fixed-rate corporate bond market.

Bloomberg U.S. Treasury Index: Measures U.S. dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index.

Book-to-Market Ratio: Compares a company's book value relative to its market capitalization. Book value is generally a firm's reported assets minus its liabilities on its balance sheet. A firm's market capitalization is calculated by taking its share price and multiplying it by the number of shares it has outstanding.

CRSP U.S. Total Market Index: Consists of nearly 4,000 constituents across mega, large, small and micro capitalizations, representing nearly 100% of the U.S. investable equity market.

Carbon Emissions Intensity: A measure of emissions efficiency calculated as company emissions normalized by company revenue and presented as a weighted average of fund or index holdings.

Credit Quality: A measure of the financial strength of the issuer of a security, and the ability of that issuer to provide timely payment of interest and principal to investors in the issuer's securities. Common measurements of credit quality include the credit ratings provided by credit rating agencies such as Standard & Poor's and Moody's.

Dow Jones Industrial Average: An average made up of 30 blue-chip stocks that trade daily on the New York Stock Exchange.

Duration: Measures how long it takes, in years, for an investor to be repaid a bond's price by the bond's total cash flows. It is also a measure of a bond's interest rate sensitivity. The longer the duration, the more sensitive a bond is to interest rate shifts.

ESG Controversies Exposure: The total fund or index weight in companies believed to have involvement with environmental, social, or governance controversies.

Effective Duration: The average duration of all the bonds in a fund. It provides an indication of how a fund's net asset value (NAV) will change as interest rates change.

Emerging Markets Debt: Debt issued by countries whose economies are considered to be developing or emerging from underdevelopment.

Exchange-Traded Fund (ETF): An ETF represents a basket of securities that trades on an exchange, similar to a stock. An ETF differs from a mutual fund in that its share price fluctuates all day as investors buy and sell the ETF. A mutual fund's net asset value (NAV) is calculated once per day after the market closes.

Glossary

Expected Returns: Valuation theory shows that the expected return of a stock is a function of its current price, its book equity (assets minus liabilities) and expected future profits, and that the expected return of a bond is a function of its current yield and its expected capital appreciation (depreciation). We use information in current market prices and company financials to identify differences in expected returns among securities, seeking to overweight securities with higher expected returns based on this current market information. Actual returns may be different than expected returns, and there is no quarantee that the strategy will be successful.

Market Capitalization: The market value of all the equity of a company's common and preferred shares. It is usually estimated by multiplying the stock price by the number of shares for each share class and summing the results.

MSCI Emerging Markets IMI Index: Captures large-, mid- and small-cap securities across 27 emerging markets countries.

MSCI Emerging Markets IMI Value Index: Captures large- and mid-cap securities exhibiting overall value style characteristics across 27 emerging markets countries. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

MSCI World ex USA IMI Index: Captures large-, mid- and small-cap representation across 22 of 23 developed markets countries, excluding the U.S.

MSCI World ex USA Small Cap Index: Captures small-cap representation across 22 of 23 developed markets countries, excluding the U.S.

MSCI World ex USA Value Index: Captures large- and mid-cap securities exhibiting overall value style characteristics across 22 of 23 developed markets countries. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

Oil and Gas Revenue Percentage: The proportion of total revenue of fund or index holdings that is derived from oil and gas-related activities.

Option-Adjusted Spread (OAS): Measures the difference between the yield of a bond with an embedded option and the yield on Treasuries. Call options give the issuer the right to redeem the bond prior to maturity at a preset price, and put options allow the holder to sell the bond back to the company on certain dates. The OAS adjusts the spread to account for these potential changing cash flows.

Profits-to-Book Ratio: Measures a company's profits relative to its book value. A company's profits are generally calculated by subtracting operating expenses from its gross profit. Book value is generally a firm's reported assets minus its liabilities on its balance sheet.

Quality: Describes the portfolio in terms of the quality ratings of the securities it holds. All U.S. government securities are included in the U.S. Government category. Cash and cash equivalents include payable amounts related to securities purchased but not settled at period end.

Credit quality ratings on underlying securities of a fund are obtained from three Nationally Recognized Statistical Rating Organizations (NRSROs), Standard & Poor's, Moody's and Fitch. Ratings are converted to the equivalent Standard & Poor's rating category for purposes of presentation. The median rating is used for securities rated by all three NRSROs. The common rating is used when two of the three NRSROs agree. The lower rating is used when only two NRSROs rate a security. A nonrated designation is assigned when a public rating is not available for a security. This designation does not necessarily indicate low credit quality. The letter ratings are provided to indicate the creditworthiness of the underlying bonds in the portfolio and generally range from AAA (highest) to D (lowest). Includes payable amounts related to securities purchased but not settled at period end.

Due to rounding, these values may exceed 100%. Negative weights, when quoted, may be due to open security or capital stock trades at period end and/or unrealized loss on derivative positions as a percent of net assets at period end. Fund holdings subject to change without notice.

Glossary

Russell 1000® Growth Index: Measures the performance of those Russell 1000 Index companies (the 1,000 largest publicly traded U.S. companies, based on total market capitalization) with higher price-to-book ratios and higher forecasted growth values.

Russell 1000® Value Index: Measures the performance of those Russell 1000 Index companies (the 1,000 largest publicly traded U.S. companies, based on total market capitalization) with lower price-to-book ratios and lower forecasted growth values.

Russell 2000® Index: Measures the performance of the 2,000 smallest companies among the 3,000 largest publicly traded U.S. companies, based on total market capitalization.

Russell 2000® Growth Index: Measures the performance of those Russell 2000 Index companies (the 2,000 smallest of the 3,000 largest publicly traded U.S. companies, based on total market capitalization) with higher price-to-book ratios and higher forecasted growth values.

Russell 2000® Value Index: Measures the performance of those Russell 2000 Index companies (the 2,000 smallest of the 3,000 largest publicly traded U.S. companies, based on total market capitalization) with lower price-to-book ratios and lower forecasted growth values.

Russell 3000® Index: Measures the performance of the largest 3,000 U.S. companies representing approximately 98% of the investable U.S. equity market.

S&P 500® Index: A market-capitalization-weighted index of the 500 largest U.S. publicly traded companies. The index is widely regarded as the best gauge of large-cap U.S. equities.

S&P Global REIT Index: A comprehensive benchmark of publicly traded equity REITs listed in both developed and emerging markets.

S&P National AMT-Free Municipal Bond Index: A broad, comprehensive, market value-weighted index designed to measure the performance of the investment-grade tax-exempt U.S. municipal bond market. Bonds issued by U.S. territories, including Puerto Rico, are excluded from this index. It is not possible to invest directly in an index.

SEC Yield: A calculation based on a 30-day period ending on the last day of the previous month. It is computed by dividing the net investment income per share earned during the period by the maximum offering price per share on the last day of the period.

Securitized Debt: Debt resulting from the process of aggregating debt instruments into a pool of similar debts, then issuing new securities backed by the pool (securitizing the debt). Examples include asset-backed and mortgage-backed securities.

Treasury Inflation-Protected Securities (TIPS): A special type of U.S. Treasury security that is indexed to inflation as measured by the Consumer Price Index, or CPI. At maturity, TIPS are guaranteed by the U.S. government to return at least their initial \$1,000 principal value, or that principal value adjusted for inflation, whichever amount is greater. In addition, as their principal values are adjusted for inflation, their interest payments also adjust.

VIX: A forward-looking index that tracks the expected 30-day future volatility of the S&P 500 Index.

Weighted Average Book-to-Market: An average book-to-market ratio resulting from the multiplication of each security's book-to-market by its weight in the portfolio.

Weighted Average Market Capitalization: An average market capitalization resulting from the multiplication of each security's market capitalization by its weight in the portfolio.

Weighted Average Profitability-to-Book: An average profitability-to-book ratio resulting from the multiplication of each security's profitability-to-book by its weight in the portfolio.

Yield to Maturity: The rate of return an investor will receive if an interest-bearing security, such as a bond, is held to its maturity date. It considers total annual interest payments, the purchase price, the redemption value, and the amount of time remaining until maturity.

Responsible Data Descriptions and Disclosures

AVSU/AVSD: Because the portfolio managers screen securities based on ESG characteristics, the fund may exclude the securities of certain issuers or industry sectors for other than financial reasons and, as a result, the fund may perform differently or maintain a different risk profile than the market generally or compared to funds that do not use similar ESG-based screens. Investing based on ESG considerations may also prioritize long term rather than short term returns. Furthermore, when analyzing ESG criteria for issuers, the portfolio management team relies on proprietary evaluations and information, ratings and scoring models published by third party sources (collectively, "ESG Data"). Due to the lack of regulation and uniform reporting standards with respect to ESG characteristics of issuers, ESG Data may be inconsistent across sources and, in certain cases, incorrect. In addition, ESG Data is not currently available for many issuers and, when available, frequently only includes some but not all of the ESG characteristics considered by the team when applying their ESG screens.

Carbon Emissions Intensity is a measure of emissions efficiency calculated as company emissions normalized by company revenue (metric tons CO2 per USD million sales) and presented as a weighted average of fund or index holdings. Company emissions data includes reported or estimated scope 1 and scope 2 greenhouse gas emissions in carbon dioxide equivalents. If neither reported nor estimated emissions data is available for a company held by the fund or index, emissions data for that company is excluded from the carbon emissions intensity calculation. This metric is calculated based on data sourced from MSCI.

Oil and Gas Revenue Percentage is the proportion of total revenue of fund or index holdings that is derived from reported or estimated oil and gas-related activities. If neither reported nor estimated oil and gas-related data is available for a company held by the fund or index, such data for that company is excluded from the calculation. This metric is calculated based on data sourced from MSCI.

ESG Controversies Exposure is the total fund or index weight in companies believed to have the worst, or most significant, involvement with environmental-, social-, or governance-related controversies. The identification of company controversies is generally based on assessment of news stories and reporting and is therefore limited by the availability of information on company practices and/or incidents. This metric is calculated based on data sourced from Sustainalytics and certain proprietary evaluations.

Scores and ratings across third party providers may be inconsistent or incomparable, and, in certain cases, incorrect. In addition, data is not currently available for many issuers and, when available, frequently only includes some but not all of the characteristics considered.

Disclosures

You should consider the fund's investment objectives, risks, and charges and expenses carefully before you invest. The fund's prospectus or summary prospectus, which can be obtained by visiting avantisinvestors.com or by calling 833-9AVANTIS, contains this and other information about the fund, and should be read carefully before investing. Investments are subject to market risk.

If this material contains any yield in addition to the 30-day SEC yield, the material must be preceded or accompanied by a current or summary prospectus.

Exchange Traded Funds (ETFs) are bought and sold through an exchange trading at market price (not NAV) and are not individually redeemed from the fund. Shares may trade at a premium or discount to their NAV in the secondary market. Brokerage commissions will reduce returns.

Investment return and principal value of security investments will fluctuate. The value at the time of redemption may be more or less than the original cost. Past performance is no guarantee of future results.

International investing involves special risks, such as political instability and currency fluctuations. Investing in emerging markets may accentuate these risks.

Historically, small- and/or mid-cap stocks have been more volatile than the stocks of larger, more-established companies. Smaller companies may have limited resources, product lines and markets, and their securities may trade less frequently and in more limited volumes than the securities of larger companies.

This information is for educational purposes only and is not intended as tax advice. Please consult your tax advisor for more detailed information or for advice regarding your individual situation. Portfolio holdings are as of date indicated and subject to change. It is not possible to invest directly in an index.

The opinions expressed are those of the portfolio team and are no guarantee of the future performance of any Avantis fund.

References to specific securities are for illustrative purposes only and are not intended as recommendations to purchase or sell securities. Opinions and estimates offered constitute our judgment and, along with other portfolio data, are subject to change without notice.

Generally, as interest rates rise, the value of the securities held in the fund will decline. The opposite is true when interest rates decline.

Derivatives may be more sensitive to changes in market conditions and may amplify risks.

Municipal Securities investing is more sensitive to events that affect municipal markets, including legislative or political changes and the financial condition of the issuers of municipal securities. The fund may have a higher level of risk than funds that invest in a larger universe of securities. Additionally, the novel coronavirus (COVID-19) pandemic has significantly stressed the financial resources of many municipal issuers, which may impair a municipal issuer's ability to meet its financial obligations when due and could adversely impact the value of its bonds, which could negatively impact the performance of the fund.

Exchange Traded Funds (ETFs): Foreside Fund Services, LLC - Distributor, not affiliated with American Century Investments Services, Inc.

