BNY MELLON | PERSHING

Investment Advisory Report

Second Quarter 2020

Washington Student Achievement Council

Prepared by Lockwood Advisors, Inc.

Contents

Executive Summary....3
Noobs and Bots....5
Monetary Policy: At the Zero Bound....7
Federal Reserve and Private Markets Policy Rate Forecasts....8
Fiscal Policy: No Restraint....8
Earnings Uncertainty....9
Geopolitics....10
Politics....10
Doomsurfing....11
Performance Review....12
Static Portfolio Review....13
Conservative Year of Enrollment Portfolio Review....15
Moderate Year of Enrollment Portfolio Review....17
Growth Year of Enrollment Portfolio Review....19
DreamAhead College Investment Plan Mutual Fund Evaluations....21
Fidelity Emerging Markets Index Fund (FPADX)....22
Fidelity International Index Fund (FSPSX)....35
Fidelity Total Market Index Fund (FSKAX)....49
Fidelity U.S. Bond Index Fund (FXNAX)....63
JPMorgan U.S. Government Money Market Fund Capital Shares (OGVXX)....78
Schwab Total Stock Market Index Fund® (SWTSX)....82
Schwab® Treasury Inflation Protected Securities Index Fund (SWRSX)....96
Vanguard Emerging Markets Government Bond Index Fund Institutional Shares (VGIVX)....109
Vanguard Long-Term Treasury Index Fund Institutional Shares (VLGIX)....122
Vanguard Total Bond Market Index Fund Institutional Plus Shares (VBMPX)....135
Year of Enrollment Portfolio Changes (July 2020)....150
New DreamAhead College Enrolled Portfolios....154
Important Disclosures....155

Executive Summary

Plan-specific highlights, with brief discussion of broader market activity to provide context.

DreamAhead College Investment Plan Highlights

- All Static and Year of Enrollment portfolios have met their respective benchmarks in Q2 2020, year-to-date, and trailing 12 month period.
- No remedial action is necessary.
- There are no funds on the Watch List. All funds have performed as expected.

Broad Market Macroeconomic Highlights

Five Trends to Consider

1. Monetary Policy: At the Zero Bound

The Federal Reserve (Fed) moved swiftly and decisively to provide unprecedented support to the general economy and equity and bond markets in the wake of the COVID-19 event. In doing so, the Fed's programs have gotten so large that they dominate trading in many areas of the bond market. The questions for markets are how long the Fed will be able to provide such massive stimulus and what happens when it is lessened or eliminated.

2. No Restraint of Fiscal Policy

Fiscal support, while swift and sizeable in a historical sense, did not arrive as quickly as Fed stimulus. The policy, at first glance, seems about right in scope to try to help mitigate a lot of damage wrought by the virus, at least for what we know so far. If the virus takes a substantial turn for the worse, we will need sizeable additional support. We expect further stimulus measures and perhaps sizeable ones if the virus does not abate soon.

3. Corporate Earnings Uncertainty Continues

Markets have given a pass to devastating macro and corporate results since the market lows in March, looking ahead to the effects of the massive amounts of policy stimulus that we've detailed above. The challenge is that markets now need to look far into the future – late 2021 or 2022 – to justify current valuations.

4. Politics and Geopolitics Will Continue to Shape the Markets

We continue to see geopolitical risks as elevated as a host of geopolitical risks have either emerged or continue to fester around the world. They could easily challenge the bullish forecast as a global recession tends to aggravate conflict. On the domestic front, regardless of political viewpoint, we believe markets should have more concern about the potential prospect for increased corporate tax rates and regulatory burdens. Also, to the extent that recession or stimulus constraints restrict corporations from stock buybacks, this hampers a force that had been a key part of the bull run from 2009–2020.

5. Doomsurfing Is on Investors' Minds

We've learned another new term, doomsurfing, the act of checking news feeds constantly for gloomy updates on the progress of the virus and the politics and geopolitics. It's possible that the only remedy for either the virus or the anxiety it creates will come from the arrival of a vaccine or potential improvements in treatment protocols. As testing reveals that more Americans have been exposed than we thought, perhaps herd immunity comes more quickly as well. With all the risks and uncertainties in the market these days, it serves as a reminder that solid financial advice and guidance are more important than ever.

Noobs and Bots

Kids say the darndest things. Like many parents quarantined at home, we've become more attuned to our children's conversations than we were prior to the lockdowns. We've also become painfully aware of the excessive amount of time they spend attached to their electronic devices. We've learned a few new vocabulary words from the computer gaming world. For example, you might get called a "noob" or "newbie." That is, you play like someone who has never handled a game controller before. You might also get called a "bot" because you have a mechanical playing style, lack creativity and get your teammates in trouble.

There are a lot of noobs and bots in the markets these days.

Some estimate that there are now 50 to 70 million active trading accounts in the U.S. Analysts, such as Bianco Research's Jim Bianco, have pointed to several potential catalysts for the increase in the number of retail accounts and small investors buying in the stock market. They point to November 2019, when some major trading platforms cut their trading commissions to match low prices offered by newcomer platforms. More trading platforms now allow purchases of fractional shares, allowing greater market access. Lower prices and more flexibility help pave the way to create more demand. Many adults, some of whom were sports-betters and stuck at home, decided to try their hand at self-directed trading or day-trading online. Boredom also helps pave the way to create demand. Also, direct stimulus programs have put cash in potential investor hands. Some of the recipients of these programs have put cash to work in online trading platforms. So, some new traders have fresh powder.

There is clearly an investor mindset that believes the Federal Reserve (Fed) will bail out stock investors (i.e., the Fed "put") and a notion that market downdrafts created a rare and attractive entry point (i.e., "TINA", or "There Is No Alternative" to U.S. stocks, or "FOMO", "Fear Of Missing Out"). These factors are a recipe for increased retail buying. Bianco thinks the new active small investor class is distorting market benchmarks and making it harder for institutional investors, who may pay more careful attention to valuations and balance sheets, to outperform.[1]

Many large investor platforms of 401(k)s and individual accounts reported very little trading activity during the period after the virus hit. Vanguard, for example, as reported in the *Wall Street Journal,* stated almost 95% of the five million investors in their 401(k) and retirement plans did not make a single trade.[2] Other platforms report similar lack of trading. Certainly, the speed of the initial decline towards the March lows surprised many and swiftness of the market reaction may not have given many investors time to reorient their portfolios. We believe this data argues that new investors in new platforms are responsible for the surge in accounts and trading, even if the overall size of the market is still dominated by the institutions. In other words, noobs are a very important part of the surge in trading. The large increase in retail trading is a key new feature of the market structure that marks the reaction to the virus.

It's not just stocks the emerging retail investors are buying. Bloomberg has reported that small investor participation in the options market has exceeded 50% of volume at periods of time in the past several months. Large investors are also highly involved, so it hasn't been just small traders. Regardless of whether they are large or small, a large number of investors are speculating in the options market.

[1] Source: "Speculative Fervor in U.S. Stocks Surges to Stunning Levels," Cormac Mullen, Bloomberg.com, June 8, 2020.

[2] Source: "Markets Bombed, Investors Carried On," Jason Zweig, *Wall Street Journal*, June 26, 2020.

Market Overview

Index Returns (%) as of June 30, 2020

Index	2Q 2020	1 Yr.	3 Yr. ^	5 Yr. ^	2019	2018	2017	2016
S&P 500	20.5	7.5	10.7	10.7	31.5	(4.4)	21.8	12.0
MSCI USA Small Cap	27.1	(6.2)	3.5	5.3	27.4	(10.0)	17.3	19.8
MSCI EAFE (net of taxes)	14.9	(5.1)	0.8	2.1	22.0	(13.8)	25.0	1.0
MSCI Emerging Markets (net of taxes)	18.1	(3.4)	1.9	2.9	18.4	(14.6)	37.3	11.2
Bloomberg Barclays US Aggregate Bond	2.9	8.7	5.3	4.3	8.7	0.0	3.5	2.6
Bloomberg Barclays Global Aggregate ex-US	3.4	0.7	2.5	2.9	5.1	(2.1)	10.5	1.5
S&P GSCI Crude Oil	91.7	(32.8)	(5.2)	(8.0)	34.5	(24.8)	12.5	45.0
S&P GSCI Gold	12.1	25.7	12.2	8.1	18.0	(2.8)	12.8	7.7
Bloomberg Commodity	5.1	(17.4)	(6.1)	(7.7)	7.7	(11.2)	1.7	11.8
Bloomberg Barclays US Treasury Bill 6–9 Month	0.0	2.2	2.0	1.3	2.6	1.8	0.7	0.5
Inflation §	(1.3)	0.2	1.6	1.6	2.3	1.9	2.1	2.1

^3 year and 5 year returns are annualized
Sources: MSCI; Bloomberg Barclays; Standard and Poor's (©2020, S&P Dow Jones Indices LLC. All rights reserved); Bureau of Labor Statistics.
§ Inflation data through May 2020. Visual created by Lockwood Advisors, Inc. For additional information regarding the indices shown, please refer to the Important Disclosures at the end of this document. Indices are unmanaged and are not available for direct investment. **Past performance is not a guarantee of future results.**

Let's not forget the bots.

Algorithmic trading uses mathematical models to automate trading processes using predefined parameters or benchmarks. It delegates decision-making to a computer model. According to Coherent Market Insights, in a report from February 2019, algorithmic ("algo") trading is responsible for 60–73% of all U.S. equity trading. Moreover, the global algo market is expected to grow at over a 10% pace during the forecast period from 2018–2026. Algorithmic trading can mean a lot of things, and has evolved quite considerably over the years. From volume- and time-based strategies, algos have evolved to trade on price and to manage impact and shortfall risk. That is, they attempt to provide alpha by minimizing trade impact. Some of the recent models are more idiosyncratic, individualized and personalized to a firm. Certainly, many of the algorithmic trading models provide better executions for both buyers and sellers in the open marketplace. It probably also helps to manage risks by controlling order types to better provide buyers and sellers with desirable outcomes. However, the increased growth of algo trading does raise concerns about whom or what is providing price discovery in the marketplace. As *Forbes*' Kenneth Rapoza put it in a June 29, 2020 article, "The growing presence of 'machine trading' also has a role in making market moves bigger and faster than they used to be as they are easily triggered by negative – or positive – headlines." Are the majority of buyers and sellers connected to any sense of fundamental value, or are computers just talking to one another? Do these trading tools whipsaw investors and increase volatility? These tools may make market trading more dangerous for those who don't use them or aren't connected to institutional trading tools.

This is not a knock on the noobs and bots. We don't use the terms in a derogatory way. Markets will adjust to new investors and speculators. In many respects, it is healthy to have new entrants to the trading arena. Investors should be able to use sophisticated trading technology to get an edge. However, the noobs have had a tough time making market calls in the past. They have tended to get in just at the wrong time. For example, stocks as a percentage of total household assets (now at 49%) have never recovered fully from the highs just before the 2000–01 dotcom crash, despite the recent surge in retail interest. Some feel that stocks as a percentage of household assets is a contrary

indicator that predicts higher future returns to stocks.[3] However, this indicator does not reflect the nature of demographic changes in the U.S. Older investors may simply be unable to suffer through bouts of market volatility and may prefer to hold more fixed income. Household asset allocation has continued to shift to bonds and cash as time has passed. Moreover, the returns from these kinds of predictive models are not particularly impressive for either stocks or bonds in light of historical market returns. In general, like many leading market valuation and timing indicators, they argue for caution, perhaps extreme caution at the current time.

Monetary Policy: At the Zero Bound

Those lamenting the lack of price discovery in markets may have criticism of the actions of the Fed, who moved swiftly and decisively to provide unprecedented support to the general economy and equity and bond markets in the wake of the COVID-19 event. In doing so, the Fed's programs have gotten so large that they dominate trading in many areas of the bond market. They have some big bots. The Fed has had to acknowledge their size. As Fed Chairman Jerome "Jay" Powell told the Senate Banking Committee on Tuesday, June 16, 2020, "I don't see us wanting to run through the bond market like an elephant snuffing out price signals." This immediately makes a listener think of the Fed running around the bond market, snuffing. The Fed has made changes to the way in which they purchase corporate bonds to try and offset worries about the size of these programs, but the Fed programs raise concerns about moral hazard and whether the central bank policy is picking winners and losers in their purchases of bonds other than Treasuries and quasi-government agency debt. Combine massive central bank activity with noobs and bots and it has many investors wondering what is driving asset prices these days.

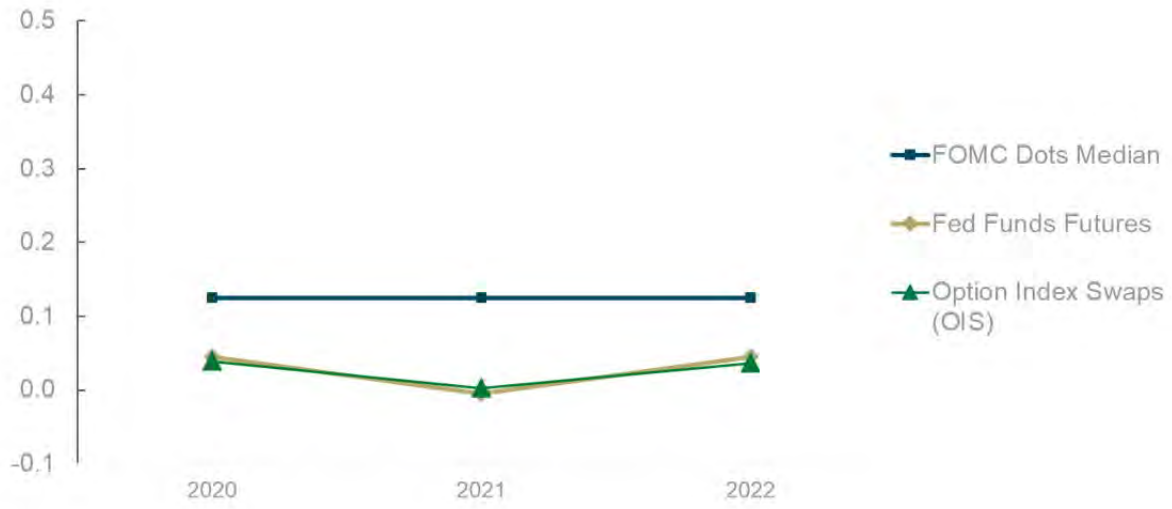
The Fed was able to implement programs quickly because it was able to borrow very heavily from the Great Financial Crisis playbook. That is, the Fed is not a bunch of noobs with regard to snuffing out financial market volatility. The questions for markets are how long the Fed will be able to provide such massive stimulus and what happens when it is lessened or eliminated. Markets seemingly had a difficult patch in late 2018 just as the Fed attempted to downsize a $4 trillion balance sheet (SOMA aka System Open Market Account). What happens when they attempt to reduce the current $7 trillion balance sheet or the $10 trillion balance sheet they are on a trajectory for?

The FOMC (Federal Open Market Committee) is projecting to remain at the zero bound for the intermediate time horizon. Remember that the Fed has two statutory mandates: full employment and price stability. Some think they have a third unstated mandate: financial market stability. The damage wrought to the employment picture from COVID-19 may be with us for a considerable length of time – years and perhaps decades. The Fed has told us they will remain here through 2022 (see chart on next page) and markets, as represented by the Federal Funds futures and OIS (option index swaps) markets, have followed suit. This looks like an incredibly boring financial graphic, but may be considerably important, as it represents an alignment about intermediate-term financial expectations on the policy rate between markets and the central bank. The markets believe central bank stimulus will underpin the markets and that will anchor expectations until something changes dramatically. It also reflects a belief that the Fed will not bring in an era of negative nominal policy rates. The FOMC has not given us reason to expect they will go to a stance that could bring negative rates to the U.S., like other central banks across the world.

[3] Source: "The 'Single Greatest Predictor of Future Stock Market Returns' has a message for us from 2030," MarketWatch.com, June 20, 2020.

Federal Reserve and Private Markets Policy Rate Forecasts

FOMC Dots, Fed Funds Futures, Option Index Swaps



Sources: Federal Reserve Open Market Committee (FOMC) and Bloomberg. Visual created by Lockwood Advisors, Inc. Data as of June 2020. FOMC is the Federal Reserve Open Market Committee.

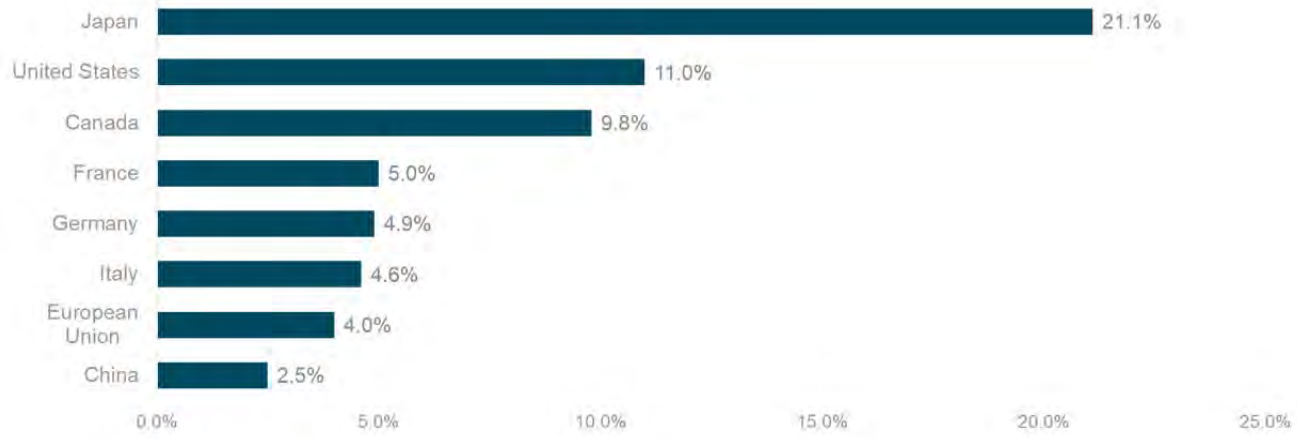
Fiscal Policy: No Restraint

As a percentage of GDP (gross domestic product), the U.S. fiscal policy measures amount to approximately 11% of the economy. Unlike the Federal Reserve, the Administration and Congress did not have a playbook to dust off and enact. Fiscal support, while swift and sizeable in a historical sense, did not arrive as quickly as Fed stimulus. The policy, at first glance, seems about right in scope to try to help mitigate a lot of damage wrought by the virus, at least for what we know so far. If the virus takes a substantial turn for the worse, we will need sizeable additional support. The current stimulus packages are an order of magnitude larger than any past stimulus in American history, including the Great Financial Crisis. Because monetary policy is a blunt instrument and we're already at the zero bound, it's up to Treasury and Congress to craft more tailor-made plans designed to help sectors, industries and small business that were especially hard hit. We expect further stimulus measures and perhaps sizeable ones if the virus does not abate soon. All of these policy measures attempt to bridge the gap between the pre- and post-COVID-19 environments. There have and will continue to be permanent loss of capital and labor from this event.

Only Japan's fiscal policy response is larger among the large developed nations in terms of GDP. Markets could be buoyed in the future if Europe is able to agree on larger, more substantive fiscal policy actions. So far, their response has not been nearly as robust as Japan, the U.S. and Canada.

Unprecedented Fiscal Policy Support

Value of COVID-19 Stimulus Packages, as Share of GDP



Source: Stastica.com. Data as of May 2020. Visual created by Lockwood Advisors, Inc.

Earnings Uncertainty

Markets have given a pass to devastating macro and corporate results since the market lows in March, looking ahead to the effects of the massive amounts of policy stimulus that we've detailed above. The challenge is that markets now need to look far into the future – late 2021 or 2022 – to justify current valuations. Moreover, even though some recent forecasts look better than they did a few months ago, markets still look expensive on many of those future predictions. Equity markets also display a narrowness and extreme valuation discrepancies across many styles and sectors. For example, broad index results are very dependent upon a handful of technology stocks for positive results. Markets have been extremely efficient in discerning likely winners from losers from the virus, as companies benefiting from a work from home environment have done extremely well. There are certainly a host of exciting new technologies (artificial Intelligence – more bots, autonomous vehicles, biotech, space travel, etc.) that could prove to be exciting areas for potential investment.

Meanwhile, there is still tremendous uncertainty about future earnings because many corporations have suspended guidance on future results. They have little ability to predict the path of the pathogen. Regardless, given the long recovery window for the economy, it's likely that other events will intervene to disrupt markets. It's very likely that multiple attractive entry points will present themselves for long-term investors.

Corporate Earnings Uncertainty Continues

COVID-19 Pandemic Triggered Record Cuts to S&P 500® Index for Q2 2020 to Date

Source: Factset. Data through Q2 2020. Data as of May 29, 2020. Visual created by Lockwood Advisors, Inc.
Past performance is not a guarantee of future results.

Geopolitics

No one had imagined a pandemic virus would disrupt 2020. Similarly, there are a host of geopolitical risks that have either emerged or continue to fester around the world: the South China Sea, Korean peninsula, Syria and the military activity on the border between the world's two most populous nations, India and China. There are conflicts over water rights in Africa. The prospect for these types of conflicts to disrupt asset markets is difficult to plan for from an asset allocation perspective, but it would be remiss not to mention potential hot spots of tension for the remainder of 2020. They could easily challenge the bullish forecast as a global recession tends to aggravate conflict. We continue to see geopolitical risks as elevated.

Politics

The upcoming election appears to have been pushed to the back burner of concerns for the market but we don't expect that to continue. Regardless of political viewpoint, we believe markets should have more concern about the potential prospect for increased corporate tax rates and regulatory burdens. Also, to the extent that recession or stimulus constraints restrict corporations from stock buybacks, this hampers a force that had been a key part of the bull run from 2009–2020. Protests, rioting and looting, as strong as a political concern as they may be, have only micro effects on the macro picture and we believe are unlikely to dramatically alter the quantitative outlook for the stock and bond markets.

With all of these concerns and uncertainties clouding the near-term, it's no wonder that many investors, despite the surge in stock and risky asset prices from the lows, remain in a gloomy mood. We've still seen strong bids for risk-off assets like gold (near eight-year highs) and less risky fixed income securities that belie the exuberant market rebound.

As we predicted in our early reports on COVID, markets have continued to remain obsessed with daily rates of infections and deaths and await any positive signs on treatment protocols and vaccines. The data points looked somewhat cooperative at first. They supported a view of a quick recovery for several months but have now unfortunately taken a decidedly bleak turn, especially for markets hopeful for smooth reopenings after several months of shutdown. Moreover, the hopes that the virus would take a seasonal withdrawal during hot weather have been dashed. It's probable that a large part of the increase in infections is due to more extensive testing, but even so, it

speaks to the considerable delays of getting back to pre-COVID-19 economic growth and productivity gains. In our view, the more important question for the macro outlook may be whether the lockdowns are reinstated. Either way, we believe there will be tremendous loss of productivity across many sectors that will linger for many quarters.

Doomsurfing

We've learned another new term, doomsurfing, the act of checking news feeds constantly for gloomy updates on the progress of the virus and the politics and geopolitics. It's possible that the only remedy for either the virus or the anxiety it creates will come from the arrival of a vaccine or potential improvements in treatment protocols. As testing reveals that more Americans have been exposed than we thought, perhaps herd immunity comes more quickly as well.

With all the noobs and bots and risks and uncertainties in the market these days, it serves as a reminder that solid financial advice and guidance are more important than ever. Particularly at this time, advisors play a key role in shaping financial futures of their clients. We believe fairly large-scale asset allocation decisions could be warranted in some cases, because it's very possible that investor risk tolerances have diverged from a realistic picture of the likely macroeconomic and market outcomes. In our view, it will likely take a great deal of time to recover from the virus in a macroeconomic sense, even if risk markets have climbed a long way back. We believe investors who may have lost sources of income should consult with their advisors and make adjustments to better weather possible near-term volatility. It's not hard to imagine that many investors with income challenges from this crisis may need to adjust their portfolios and take risk off the table.

We're watching the U.S. consumer take a very different view with regard to how they spend the income they have. Savings rates have skyrocketed from around 12% to 34% of disposable income. On the one hand, it provides fuel for the recovery if consumption rates rise back to more normal pre-crisis levels. But, it may also show a U.S. consumer who realistically gauges the likely damage to their employment and income situation for the foreseeable future. Like so many aspects of this crisis at the present time, it may simply be too early to tell.

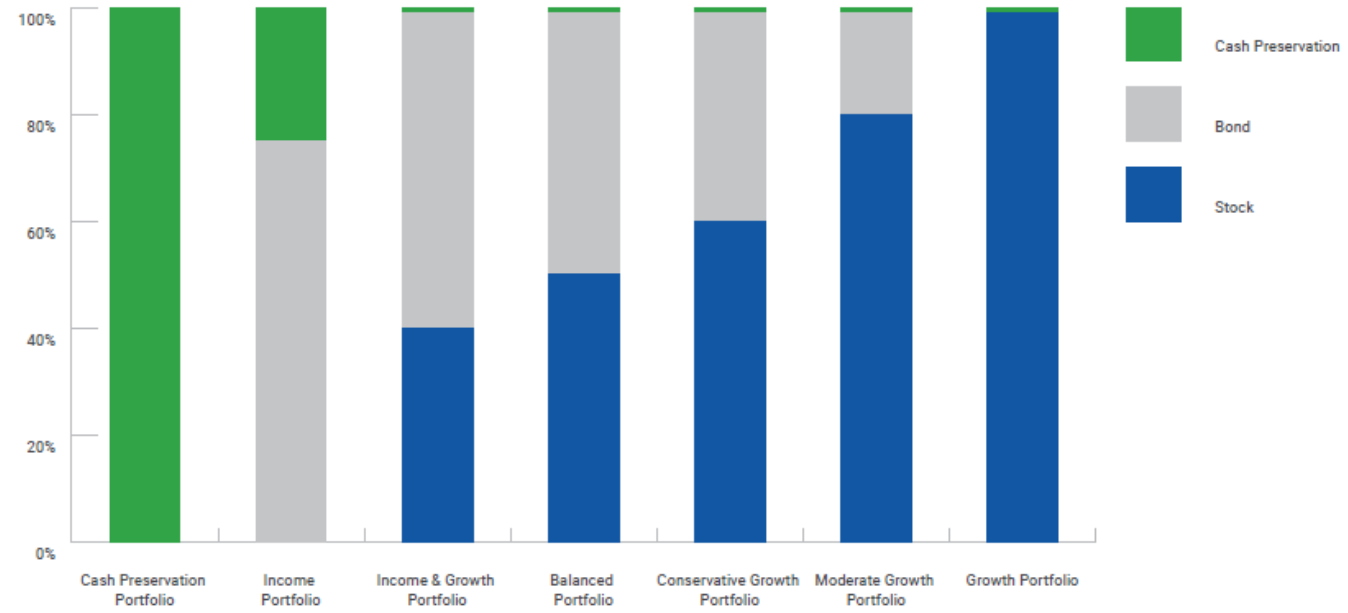
Even if a more optimistic picture emerges from the COVID-19 pandemic wreckage, as it likely will in time, we believe volatility will remain well above 2019 levels for some intermediate time period. We continue to remain somewhat cautious and protective of client assets at this juncture.

Performance Review

- All Static and Year of Enrollment portfolios have met their respective benchmarks in Q2 2020, year-to-date, and trailing 12 month period.
- No remedial action is necessary.
- There are no funds on the Watch List. All funds have performed as expected.

Static Portfolio Review

Static Asset Class Allocations



Source: SumDay Administration, LLC, a BNY Mellon Company. SumDay is an affiliate of Lockwood Advisors, Inc.
Portfolio allocations as of 6/30/2020

Static Portfolio Underlying Fund Allocations

Asset Category	Fund	Ticker	Cash Preservation Portfolio	Income Portfolio	Income and Growth Portfolio	Balanced Portfolio	Conservative Growth Portfolio	Moderate Growth Portfolio	Growth Portfolio
U.S. Large Cap Blend	Fidelity® Total Market Index Fund	FSKAX	0	0	10	13	16	21	25
U.S. Large Cap Blend	Schwab Total Stock Market Index Fund®	SWTSX	0	0	10	13	16	21	25
Foreign Large Blend	Fidelity® International Index Fund	FSPSX	0	0	15	18	21	29	37
Diversified Emerging Mkts	Fidelity® Emerging Markets Index Fund	FPADX	0	0	5	6	7	9	12
Intermediate-Term Bond	Fidelity® U.S. Bond Index Fund	FXNAX	0	30	24	20	15	6	0
Intermediate-Term Bond	Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	0	30	24	20	15	6	0
Long Government	Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	0	5	4	3	3	2	0
Inflation-Protected Bond	Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	0	8	5	4	4	3	0
Emerging Markets Bond	Vanguard Emerging Markets Government Bond Index Fund Institutional Shares	VGIVX	0	2	2	2	2	2	0
Cash	JPMorgan U.S. Government Money Market Fund Capital Shares	OGVXX	100	25	1	1	1	1	1
		Equity	0	0	40	50	60	80	99
		Fixed Income	0	75	59	49	39	19	0
		Cash	100	25	1	1	1	1	1
		Total	100	100	100	100	100	100	100

Source: SumDay Administration, LLC, a BNY Mellon Company. SumDay is an affiliate of Lockwood Advisors, Inc.
Portfolio allocations as of 6/30/2020

Growth Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	19.17	-6.81	1.15
Net of All Fees Return	19.10	-6.91	0.93
Blended Benchmark	18.74	-7.10	0.91
Excess Return	0.36	0.19	0.02

Income & Growth Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	9.39	2.04	7.14
Net of All Fees Return	9.33	1.93	6.90
Blended Benchmark	9.24	1.41	6.52
Excess Return	0.09	0.52	0.38

Moderate Growth Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	16.24	-3.74	3.48
Net of All Fees Return	16.18	-3.85	3.25
Blended Benchmark	15.84	-4.18	3.05
Excess Return	0.34	0.33	0.20

Income Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	2.32	5.41	7.62
Net of All Fees Return	2.26	5.30	7.38
Blended Benchmark	2.31	5.26	7.54
Excess Return	-0.05	0.04	-0.16

Conservative Growth Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	12.90	-0.58	5.67
Net of All Fees Return	12.84	-0.69	5.44
Blended Benchmark	12.58	-1.25	5.00
Excess Return	0.26	0.56	0.44

Cash Preservation Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	0.04	0.35	1.29
Net of All Fees Return	-0.02	0.24	1.07
Benchmark	0.02	0.49	1.47
Excess Return	-0.04	-0.25	-0.40

Balanced Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	11.19	0.74	6.41
Net of All Fees Return	11.13	0.63	6.18
Blended Benchmark	10.91	0.02	5.70
Excess Return	0.22	0.61	0.48

Please see Blended Benchmark Definitions in the Important Disclosures section at the end of this report.

Performance as of 6/30/2020.

Source: SumDay Administration, LLC, a BNY Mellon Company. SumDay is an affiliate of Lockwood Advisors, Inc.

Performance is calculated using a time and asset-weighted Modified Dietz methodology. The Gross of Fees Return shown reflects the deduction of fees and expenses associated with the underlying mutual funds held in the portfolio (the “Underlying Fund Fee”). The Net of Fees Return shown reflects the deduction of the Underlying Fund Fee, Service Fee, and State Administrative Fee (together, the “Total Annual Asset-Based Fee”). The returns shown do not reflect account maintenance fees or other account level service-based fees (e.g., returned check fees, statement delivery fees, etc.).

Past performance is not a guarantee of future results. Current performance may be lower or higher than the performance data quoted. The investment return and principal value of an investment will fluctuate, so that an investor’s assets, when sold, may be worth more or less than their original cost.

Indices are unmanaged and are not available for direct investment.

Conservative Year of Enrollment Portfolio Review

Conservative Year of Enrollment Portfolio Underlying Fund Allocations

Asset Category	Fund	Ticker	YoE 2036	YoE 2034	YoE 2032	YoE 2030	YoE 2028	YoE 2026	YoE 2024	YoE 2022	YoE 2020	YoE 2018
U.S. Large Cap Blend	Fidelity® Total Market Index Fund	FSKAX	15	13	10	8	5	4	3	2	0	0
U.S. Large Cap Blend	Schwab Total Stock Market Index Fund®	SWTSX	14	13	10	7	5	4	2	1	0	0
Foreign Large Blend	Fidelity® International Index Fund	FSPSX	19	18	15	11	7	5	4	2	0	0
Diversified Emerging Mkts	Fidelity® Emerging Markets Index Fund	FPADX	7	6	5	4	3	2	1	0	0	0
Intermediate-Term Bond	Fidelity® U.S. Bond Index Fund	FXNAX	17	20	24	28	28	26	26	18	20	20
Intermediate-Term Bond	Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	18	20	24	28	29	27	27	18	21	21
Long Government	Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	3	3	4	4	4	4	4	3	3	3
Inflation-Protected Bond	Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	4	4	5	7	7	6	6	4	4	4
Emerging Markets Bond	Vanguard Emerging Markets Government Bond Index Fund Institutional Shares	VGIVX	2	2	2	2	2	2	2	2	2	2
Cash	JPMorgan U.S. Government Money Market Fund Capital Shares	OGVXX	1	1	1	1	10	20	25	50	50	50
		Equity	55	50	40	30	20	15	10	5	0	0
		Fixed Income	44	49	59	69	70	65	65	45	50	50
		Cash	1	1	1	1	10	20	25	50	50	50
		Total	100	100	100	100	100	100	100	100	100	100

Source: SumDay Administration, LLC, a BNY Mellon Company. SumDay is an affiliate of Lockwood Advisors, Inc.
Portfolio allocations as of 6/30/2020.

Conservative Year of Enrollment 2036 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	12.19	-0.10	5.89
Net of All Fees Return	12.14	-0.21	5.66
Blended Benchmark	11.76	-0.60	5.36
Excess Return	0.38	0.39	0.30

Conservative Year of Enrollment 2034 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	11.28	0.89	6.63
Net of All Fees Return	11.22	0.78	6.39
Blended Benchmark	10.91	0.02	5.70
Excess Return	0.31	0.76	0.69

Conservative Year of Enrollment 2032 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	9.58	2.28	7.44
Net of All Fees Return	9.52	2.17	7.21
Blended Benchmark	9.24	1.41	6.56
Excess Return	0.28	0.76	0.65

Conservative Year of Enrollment 2030 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	7.93	3.42	7.97
Net of All Fees Return	7.87	3.31	7.74
Blended Benchmark	7.69	2.72	7.28
Excess Return	0.18	0.59	0.46

Conservative Year of Enrollment 2028 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	5.99	4.16	8.04
Net of All Fees Return	5.94	4.05	7.81
Blended Benchmark	5.86	3.51	7.32
Excess Return	0.08	0.54	0.49

Conservative Year of Enrollment 2026 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	4.88	4.23	7.52
Net of All Fees Return	4.82	4.12	7.28
Blended Benchmark	4.80	3.62	6.91
Excess Return	0.02	0.50	0.37

Conservative Year of Enrollment 2024 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	3.90	4.24	7.09
Net of All Fees Return	3.85	4.12	6.85
Blended Benchmark	3.84	3.90	6.79
Excess Return	0.01	0.22	0.06

Conservative Year of Enrollment 2022 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	2.44	3.20	5.32
Net of All Fees Return	2.39	3.08	5.09
Blended Benchmark	2.37	3.00	5.16
Excess Return	0.02	0.08	-0.07

Conservative Year of Enrollment 2020 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	1.60	3.62	5.41
Net of All Fees Return	1.55	3.50	5.18
Blended Benchmark	1.59	3.56	5.40
Excess Return	-0.04	-0.06	-0.22

Conservative Year of Enrollment 2018 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	1.60	3.62	5.41
Net of All Fees Return	1.55	3.51	5.18
Blended Benchmark	1.59	3.56	5.40
Excess Return	-0.04	-0.05	-0.22

Please see Blended Benchmark Definitions in the Important Disclosures section at the end of this report.

Performance as of 6/30/2020.

Source: SumDay Administration, LLC, a BNY Mellon Company. SumDay is an affiliate of Lockwood Advisors, Inc.

Performance is calculated using a time and asset-weighted Modified Dietz methodology. The Gross of Fees Return shown reflects the deduction of fees and expenses associated with the underlying mutual funds held in the portfolio (the “Underlying Fund Fee”). The Net of Fees Return shown reflects the deduction of the Underlying Fund Fee, Service Fee, and State Administrative Fee (together, the “Total Annual Asset-Based Fee”). The returns shown do not reflect account maintenance fees or other account level service-based fees (e.g., returned check fees, statement delivery fees, etc.).

Past performance is not a guarantee of future results. Current performance may be lower or higher than the performance data quoted. The investment return and principal value of an investment will fluctuate, so that an investor’s assets, when sold, may be worth more or less than their original cost.

Indices are unmanaged and are not available for direct investment.

Moderate Year of Enrollment Portfolio Review

Moderate Year of Enrollment Portfolio Underlying Fund Allocations

Asset Category	Fund	Ticker	YoE 2036	YoE 2034	YoE 2032	YoE 2030	YoE 2028	YoE 2026	YoE 2024	YoE 2022	YoE 2020	YoE 2018
U.S. Large Cap Blend	Fidelity® Total Market Index Fund	FSKAX	24	24	21	18	16	13	9	5	3	0
U.S. Large Cap Blend	Schwab Total Stock Market Index Fund®	SWTSX	23	23	21	18	16	13	9	5	2	0
Foreign Large Blend	Fidelity® International Index Fund	FSPSX	33	33	29	26	21	18	12	7	4	0
Diversified Emerging Mkts	Fidelity® Emerging Markets Index Fund	FPADX	10	10	9	8	7	6	5	3	1	0
Intermediate-Term Bond	Fidelity® U.S. Bond Index Fund	FXNAX	3	3	6	10	15	20	24	27	27	27
Intermediate-Term Bond	Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	2	2	6	10	15	20	25	28	28	28
Long Government	Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	1	1	2	3	3	3	4	5	5	5
Inflation-Protected Bond	Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	2	2	3	4	4	4	5	8	8	8
Emerging Markets Bond	Vanguard Emerging Markets Government Bond Index Fund Institutional Shares	VGIVX	1	1	2	2	2	2	2	2	2	2
Cash	JPMorgan U.S. Government Money Market Fund Capital Shares	OGVXX	1	1	1	1	1	1	5	10	20	30
		Equity	90	90	80	70	60	50	35	20	10	0
		Fixed Income	9	9	19	29	39	49	60	70	70	70
		Cash	1	1	1	1	1	1	5	10	20	30
		Total	100	100	100	100	100	100	100	100	100	100

Source: SumDay Administration, LLC, a BNY Mellon Company. SumDay is an affiliate of Lockwood Advisors, Inc.
Portfolio allocations as of 6/30/2020.

Moderate Year of Enrollment 2036 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	17.87	-5.07	2.60
Net of All Fees Return	17.81	-5.17	2.38
Blended Benchmark	17.41	-5.66	2.02
Excess Return	0.40	0.49	0.36

Moderate Year of Enrollment 2034 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	17.89	-5.36	2.26
Net of All Fees Return	17.83	-5.47	2.04
Blended Benchmark	17.41	-5.66	2.02
Excess Return	0.42	0.19	0.02

Moderate Year of Enrollment 2032 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	16.27	-3.81	3.56
Net of All Fees Return	16.20	-3.91	3.33
Blended Benchmark	15.84	-4.18	3.05
Excess Return	0.36	0.27	0.28

Moderate Year of Enrollment 2030 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	14.50	-1.96	4.74
Net of All Fees Return	14.44	-2.07	4.51
Blended Benchmark	14.12	-2.72	4.01
Excess Return	0.32	0.65	0.50

Moderate Year of Enrollment 2028 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	12.91	-0.49	5.74
Net of All Fees Return	12.85	-0.60	5.51
Blended Benchmark	12.58	-1.25	5.00
Excess Return	0.27	0.65	0.51

Moderate Year of Enrollment 2026 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	11.22	0.97	6.66
Net of All Fees Return	11.16	0.86	6.43
Blended Benchmark	10.91	0.02	5.70
Excess Return	0.25	0.84	0.73

Moderate Year of Enrollment 2024 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	8.61	2.71	7.45
Net of All Fees Return	8.56	2.60	7.22
Blended Benchmark	8.38	1.91	6.67
Excess Return	0.18	0.69	0.55

Moderate Year of Enrollment 2022 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	6.03	4.24	8.01
Net of All Fees Return	5.97	4.13	7.78
Blended Benchmark	5.85	3.65	7.43
Excess Return	0.12	0.48	0.35

Moderate Year of Enrollment 2020 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	4.05	4.69	7.63
Net of All Fees Return	3.99	4.57	7.40
Blended Benchmark	3.98	4.32	7.31
Excess Return	0.01	0.25	0.09

Moderate Year of Enrollment 2018 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	2.18	5.11	7.24
Net of All Fees Return	2.12	4.99	7.00
Blended Benchmark	2.17	4.98	7.17
Excess Return	-0.05	0.01	-0.17

Please see Blended Benchmark Definitions in the Important Disclosures section at the end of this report.

Performance as of 6/30/2020.

Source: SumDay Administration, LLC, a BNY Mellon Company. SumDay is an affiliate of Lockwood Advisors, Inc.

Performance is calculated using a time and asset-weighted Modified Dietz methodology. The Gross of Fees Return shown reflects the deduction of fees and expenses associated with the underlying mutual funds held in the portfolio (the “Underlying Fund Fee”). The Net of Fees Return shown reflects the deduction of the Underlying Fund Fee, Service Fee, and State Administrative Fee (together, the “Total Annual Asset-Based Fee”). The returns shown do not reflect account maintenance fees or other account level service-based fees (e.g., returned check fees, statement delivery fees, etc.).

Past performance is not a guarantee of future results. Current performance may be lower or higher than the performance data quoted. The investment return and principal value of an investment will fluctuate, so that an investor’s assets, when sold, may be worth more or less than their original cost.

Indices are unmanaged and are not available for direct investment.

Growth Year of Enrollment Portfolio Review

Growth Year of Enrollment Portfolio Underlying Fund Allocations

Asset Category	Fund	Ticker	YoE 2036	YoE 2034	YoE 2032	YoE 2030	YoE 2028	YoE 2026	YoE 2024	YoE 2022	YoE 2020	YoE 2018
U.S. Large Cap Blend	Fidelity® Total Market Index Fund	FSKAX	25	25	24	24	22	21	16	11	5	3
U.S. Large Cap Blend	Schwab Total Stock Market Index Fund®	SWTSX	24	24	23	23	22	21	15	10	5	2
Foreign Large Blend	Fidelity® International Index Fund	FSPSX	35	35	33	33	31	29	22	14	7	4
Diversified Emerging Mkts	Fidelity® Emerging Markets Index Fund	FPADX	11	11	10	10	10	9	7	5	3	1
Intermediate-Term Bond	Fidelity® U.S. Bond Index Fund	FXNAX	1	1	3	3	3	6	15	24	33	24
Intermediate-Term Bond	Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	1	1	2	2	4	6	15	24	33	24
Long Government	Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	1	1	1	1	2	2	3	4	4	4
Inflation-Protected Bond	Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	0	0	2	2	3	3	4	5	7	6
Emerging Markets Bond	Vanguard Emerging Markets Government Bond Index Fund Institutional Shares	VGIVX	1	1	1	1	2	2	2	2	2	2
Cash	JPMorgan U.S. Government Money Market Fund Capital Shares	OGVXX	1	1	1	1	1	1	1	1	1	30
		Equity	95	95	90	90	85	80	60	40	20	10
		Fixed Income	4	4	9	9	14	19	39	59	79	60
		Cash	1	1	1	1	1	1	1	1	1	30
		Total	100	100	100	100	100	100	100	100	100	100

Source: SumDay Administration, LLC, a BNY Mellon Company. SumDay is an affiliate of Lockwood Advisors, Inc.
Portfolio allocations as of 6/30/2020.

Growth Year of Enrollment 2036 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	18.46	-6.36	1.47
Net of All Fees Return	18.40	-6.46	1.25
Blended Benchmark	18.19	-6.40	1.50
Excess Return	0.21	-0.06	-0.25

Growth Year of Enrollment 2034 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	18.56	-6.06	1.78
Net of All Fees Return	18.50	-6.16	1.56
Blended Benchmark	18.19	-6.40	1.50
Excess Return	0.31	0.24	0.06

Growth Year of Enrollment 2032 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	17.88	-5.28	2.35
Net of All Fees Return	17.82	-5.39	2.13
Blended Benchmark	17.41	-5.66	2.02
Excess Return	0.41	0.27	0.11

Growth Year of Enrollment 2030 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	17.81	-5.29	2.37
Net of All Fees Return	17.75	-5.39	2.15
Blended Benchmark	17.41	-5.66	2.02
Excess Return	0.34	0.27	0.13

Growth Year of Enrollment 2028 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	17.05	-4.46	2.98
Net of All Fees Return	16.99	-4.56	2.75
Blended Benchmark	16.64	-4.92	2.53
Excess Return	0.35	0.36	0.22

Growth Year of Enrollment 2026 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	16.22	-3.62	3.63
Net of All Fees Return	16.16	-3.72	3.40
Blended Benchmark	15.84	-4.18	3.05
Excess Return	0.32	0.46	0.35

Growth Year of Enrollment 2024 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	12.84	-0.70	5.63
Net of All Fees Return	12.78	-0.81	5.40
Blended Benchmark	12.51	-1.34	4.95
Excess Return	0.27	0.53	0.45

Growth Year of Enrollment 2022 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	9.53	2.16	7.38
Net of All Fees Return	9.47	2.05	7.14
Blended Benchmark	9.31	1.50	6.72
Excess Return	0.16	0.55	0.42

Growth Year of Enrollment 2020 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	6.23	4.48	8.50
Net of All Fees Return	6.18	4.37	8.26
Blended Benchmark	6.13	4.01	8.01
Excess Return	0.05	0.36	0.25

Growth Year of Enrollment 2018 Portfolio	Q2 2020	YTD	1 Year
Gross of Fees Return	3.74	3.96	6.73
Net of All Fees Return	3.69	3.85	6.49
Blended Benchmark	3.69	3.62	6.42
Excess Return	0.00	0.23	0.07

Please see Blended Benchmark Definitions in the Important Disclosures section at the end of this report.

Performance as of 6/30/2020.

Source: SumDay Administration, LLC, a BNY Mellon Company. SumDay is an affiliate of Lockwood Advisors, Inc.

Performance is calculated using a time and asset-weighted Modified Dietz methodology. The Gross of Fees Return shown reflects the deduction of fees and expenses associated with the underlying mutual funds held in the portfolio (the “Underlying Fund Fee”). The Net of Fees Return shown reflects the deduction of the Underlying Fund Fee, Service Fee, and State Administrative Fee (together, the “Total Annual Asset-Based Fee”). The returns shown do not reflect account maintenance fees or other account level service-based fees (e.g., returned check fees, statement delivery fees, etc.).

Past performance is not a guarantee of future results. Current performance may be lower or higher than the performance data quoted. The investment return and principal value of an investment will fluctuate, so that an investor’s assets, when sold, may be worth more or less than their original cost. Indices are unmanaged and are not available for direct investment.

DreamAhead College Investment Plan Mutual Fund Evaluations

Presented by Lockwood Advisors, Inc.

The following are evaluations of the funds used in DreamAhead. The sources used are BNY Mellon Manager Research Group (MRG), Morningstar, and the respective fund companies. Relevant MRG research was used where available, supplemented with Morningstar research and fund company data. The ratings and narratives used are taken directly from the sources noted. MRG and Morningstar use differing scales. MRG rates Organizations as Positive, Satisfactory, or Negative; while Morningstar rates Funds as Positive, Neutral or Negative; or High, Above Average, Average, Below Average, and Low. Source dates vary based on the most recent ratings available for a particular category, fund, or parent company.

The following information and opinions contained in this material are derived from proprietary and nonproprietary sources deemed by Lockwood to be reliable, but are not necessarily all inclusive. Opinions and ratings are subject to change at any time without notice. Please refer to the Important Disclosures at the end of this document.

Fidelity Emerging Markets Index Fund (FPADX)

Firm Background*

Fidelity Institutional Asset Management Trust Company (FIAM) is the US-based investment management subsidiary of Fidelity Management & Research (FRM). FRM is a large, privately-held, multi-service financial services firm founded in 1946 by Edward C. Johnson. FMR is currently under the leadership of CEO Abigail Johnson. Approximately 49% of FMR is owned by Ms. Johnson and other members of the Johnson family. 51% is held by employees and former employees.

FIAM was established in 2015 through the combination of Pyramis Global Advisors and Fidelity Financial Advisor Solutions, which served, respectively, institutional and retail investment management clients. The firm manages roughly $175 billion across fixed income (38%), multi-asset (32%), and equity (28%), with cash and alternatives comprising the balance. Judy Marlinski is President of FIAM, She reports to Mike Dervin, Head of Fidelity Institutional at FMR.

Organization: Satisfactory* FMR and, by extension, FIAM are highly complex and deeply intertwined organizations. Differences between functional business units and legal entities are often indistinct, but the high degree of involvement from the senior ranks of the FMR organization, particularly given the hands-on approach of FMR CEO Abigail Johnson, appear to manage this complexity effectively. FIAM is large, owing a portion of its success to the strong brand and distribution power of the parent company. The firm maintains a diversified client base and product line, as well as a strong investment culture. Senior leadership at FIAM has experienced some significant changes over the past two years, most notably the retirement of Charlie Morrison, FMR's President of Asset Management, in December of 2018 and the departure of Scott Cuoto, President of FIAM in mid-2017. The President of FIAM reports into the President of Asset Management at FRM Additionally, the firm has experienced high profile sexual harassment claims in recent years, leading to some turnover among senior investment professionals. This may indicate that the firm has non-investment-related cultural issues, which can still damage the likelihood of success for the investment teams. However, senior management responded forcefully, and we will continue to monitor the organization for cultural and legal issues.

Strategy**

The Fidelity® Emerging Markets Index Fund seeks to provide investment results that correspond to the total return of emerging stock markets.

Normally investing at least 80% of assets in securities included in the MSCI Emerging Markets Index and in depository receipts representing securities included in the index. Using statistical sampling techniques based on such factors as capitalization, industry exposures, dividend yield, price/earnings ratio, price/book ratio, earnings growth, country weightings, and the effect of foreign taxes to attempt to replicate the returns of the MSCI Emerging Markets Index. Lending securities to earn income for the fund.

Summary

This fund has not been rated by Morningstar, Inc.

Performance

This fund has not been rated by Morningstar, Inc.

Price

This fund has not been rated by Morningstar, Inc.

Process

This fund has not been rated by Morningstar, Inc.

People

This fund has not been rated by Morningstar, Inc.

* Source: BNY Mellon Manager Research Group, as of July 2019
** Source: Fidelity (FMR, LLC), as of 6/30/2020

Fidelity® Emerging Markets Idx (USD)

Morningstar Quantitative Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Bronze [Q] 06-30-2020	★★★ 698 US Fund Diversified Emerging Mkts	MSCI ACWI Ex USA NR USD	MSCI EM NR USD	US Fund Diversified Emerging Mkts

Performance 07-31-2020

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2018	2.19	-8.83	-1.03	-7.41	-14.63
2019	9.75	0.86	-4.45	11.82	18.26
2020	-23.86	18.78	—	—	-1.91

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	7.23	2.89	5.75	—	2.98
Std 06-30-2020	-3.38	—	2.58	—	1.95
Total Return	7.23	2.89	5.75	—	2.98
+/- Std Index	6.57	1.30	2.54	—	—
+/- Cat Index	0.68	-0.15	-0.40	—	—
% Rank Cat	41	41	42	—	
No. in Cat	803	698	584	—	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

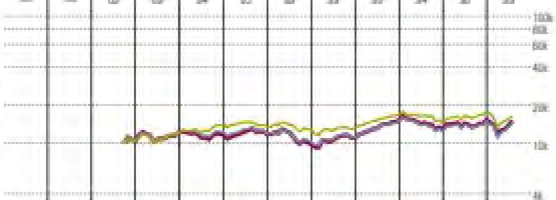
The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-835-5092 or visit www.institutional.fidelity.com.

Investment Style
Equity
Stocks %

—	—	89	89	94	93	99	99	99	94	98	99

Growth of $10,000



- Fidelity® Emerging Markets Idx 15,018
- Category Average 14,496
- Standard Index 16,322

Performance Quartile (within category)

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	07-20	History
—	—	8.90	10.25	9.56	9.42	7.73	8.46	11.42	9.54	10.98	10.77	NAV/Price
—	—	—	17.62	-4.69	0.58	-15.84	11.28	37.65	-14.63	18.26	-1.91	Total Return %
—	—	—	0.79	-19.98	4.46	-10.18	5.77	10.45	-0.43	-3.25	5.12	+/- Standard Index
—	—	—	-0.60	-2.09	2.78	-0.92	0.07	0.36	-0.06	-0.16	-0.19	+/- Category Index
—	—	—	50	74	17	65	30	34	35	57	—	% Rank Cat
—	—	—	552	614	749	840	813	806	836	835	823	No. of Funds in Cat

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.08
12b1 Expense %	NA
Net Expense Ratio %	**0.08**
Gross Expense Ratio %	**0.08**

Risk and Return Profile

	3 Yr 698 funds	5 Yr 584 funds	10 Yr 246 funds
Morningstar Rating™	3★	3★	—
Morningstar Risk	-Avg	Avg	—
Morningstar Return	Avg	Avg	—

	3 Yr	5 Yr	10 Yr
Standard Deviation	19.03	17.92	—
Mean	2.89	5.75	—
Sharpe Ratio	0.15	0.34	—

MPT Statistics	Standard Index	Best Fit Index MSCI EM NR USD
Alpha	1.67	-0.12
Beta	1.12	1.00
R-Squared	88.52	98.89

12-Month Yield	—
Potential Cap Gains Exp	2.35%

Portfolio Analysis 06-30-2020

Asset Allocation %	Net %	Long %	Short %
Cash	0.96	0.96	0.00
US Stocks	0.33	0.33	0.00
Non-US Stocks	98.64	98.64	0.00
Bonds	0.01	0.01	0.00
Other/Not Clsfd	0.06	0.06	0.00
Total	100.00	100.00	0.00

Equity Style (Value / Blend / Growth; Large / Mid / Small)

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	14.6	0.86	0.91
P/C Ratio TTM	8.8	0.97	0.86
P/B Ratio TTM	1.6	1.02	0.77
Geo Avg Mkt Cap $mil	38604	1.02	0.84

Fixed-Income Style (Ltd / Mod / Ext; High / Med / Low)

Avg Eff Maturity	—
Avg Eff Duration	—
Avg Wtd Coupon	—
Avg Wtd Price	—

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	8.2	0.87
Greater Europe	12.7	0.29
Greater Asia	79.0	1.69

Share Chg since 05-2020	Share Amount	Holdings: 1,413 Total Stocks , 2 Total Fixed-Income, 3% Turnover Ratio	Net Assets %
⊕	925,267	Alibaba Group Holding Ltd ADR	6.77
⊖	3 mil	Tencent Holdings Ltd	6.14
⊖	12 mil	Taiwan Semiconductor Manufacturing	4.41
⊖	2 mil	Samsung Electronics Co Ltd	3.55
☼	1,149	MSCI Emerging Markets Index Future	1.92
⊖	219,022	Naspers Ltd Class N	1.37
⊕	2 mil	Meituan Dianping	1.32
⊖	47 mil	China Construction Bank Corp Class	1.30
⊖	1 mil	Reliance Industries Ltd	1.08
	3 mil	Ping An Insurance (Group) Co. of C	1.00
☼	28 mil	Fidelity Revere Str Tr	0.98
⊕	418,777	JD.com Inc ADR	0.86
⊖	3 mil	China Mobile Ltd	0.69
⊖	268,928	SK Hynix Inc	0.65
⊖	810,026	Housing Development Finance Corp L	0.64

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**43.8**	**1.12**
Basic Materials	6.9	0.88
Consumer Cyclical	15.2	1.39
Financial Services	19.0	1.08
Real Estate	2.7	0.98
Sensitive	**42.6**	**1.17**
Communication Services	14.9	1.73
Energy	5.9	1.24
Industrials	4.5	0.41
Technology	17.2	1.43
Defensive	**13.6**	**0.55**
Consumer Defensive	7.0	0.68
Healthcare	4.3	0.40
Utilities	2.2	0.64

Operations

Family:	Fidelity Investments	Base Currency:	USD	Purchase Constraints:	A
Manager:	Multiple	Ticker:	FPADX	Incept:	09-08-2011
Tenure:	8.9 Years	ISIN:	US3161463316	Type:	MF
Objective:	Diversified Emerging Markets	Minimum Initial Purchase:	$0	Total Assets:	$3,157.58 mil

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Standardized and Tax Adjusted Returns Disclosure Statement

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end please visit http://advisor.morningstar.com/familyinfo.asp.

Standardized Returns assume reinvestment of dividends and capital gains. They depict performance without adjusting for the effects of taxation, but are adjusted to reflect sales charges and ongoing fund expenses.

If adjusted for taxation, the performance quoted would be significantly reduced. For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges. The maximum redemption fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase.

After-tax returns are calculated using the highest individual federal marginal income tax rates, and do not reflect the impact of state and local taxes. Actual after-tax returns depend on the investor's tax situation and may differ from those shown. The after-tax returns shown are not relevant to investors who hold their fund shares through tax-deferred arrangements such as 401(k) plans or an IRA. After-tax returns exclude the effects of either the alternative minimum tax or phase-out of certain tax credits. Any taxes due are as of the time the distributions are made, and the taxable amount and tax character of each distribution are as specified by the fund on the dividend declaration date. Due to foreign tax credits or realized capital losses, after-tax returns may be greater than before-tax returns. After-tax returns for exchange-traded funds are based on net asset value.

Money Market Fund Disclosures

If money market fund(s) are included in the Standardized Returns table below, each money market fund's name will be followed by a superscripted letter that links it to the applicable disclosure below:

Institutional Money Market Funds (designated by an "S"):

You could lose money by investing in the fund. Because the share price of the fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "L") and

Retail Money Market Funds (designated by an "L"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen not to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "N"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Annualized returns 06-30-2020

Standardized Returns (%)	7-day Yield Subsidized as of date	7-day Yield Unsubsidized as of date	YTD	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
Fidelity® Emerging Markets Idx	—	—	-3.98	2.58	—	1.95	09-08-2011	NA	NA	0.08	0.08	NA
BBgBarc US Agg Bond TR USD			**8.74**	**4.30**	**3.82**	**—**	**01-03-1990**					
MSCI ACWI Ex USA NR USD			**-4.80**	**2.26**	**4.97**	**—**	**01-01-2001**					
MSCI EAFE NR USD			**-5.13**	**2.05**	**5.73**	**—**	**03-31-1986**					
MSCI EM NR USD			**-3.39**	**2.86**	**3.27**	**—**	**01-01-2001**					
S&P 500 TR USD			**7.51**	**10.73**	**13.99**	**—**	**09-11-1989**					

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) contain the confidential and proprietary information of Morningstar; (2) may include, at the limited fees, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable, it must be preceded or accompanied by a prospectus, or summary and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR

Release date 07-31-2020 Page 3 of 11

Annualized returns 06-30-2020

Standardized Returns (%)	7-day Yield Subsidized as of date	7-day Yield Unsubsidized as of date	1Yr	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
USTREAS T-Bill Auction Ave 3 Mon			**1.26**	**1.17**	**0.62**	**—**	**02-28-1941**					

Return after Tax (%)	On Distribution					On Distribution and Sales of Shares			
	1Yr	5Yr	10Yr	Since Inception	Inception Date	1Yr	5Yr	10Yr	Since Inception
Fidelity® Emerging Markets Idx	-4.20	1.89	—	1.26	09-08-2011	-1.74	1.79	—	1.26

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Mutual Fund Detail Report Disclosure Statement

The Mutual Fund Detail Report is supplemental sales literature, and therefore must be preceded or accompanied by the mutual fund's current prospectus or an equivalent statement. Please read this information carefully. In all cases, this disclosure statement should accompany the Mutual Fund Detail Report. Morningstar is not itself a FINRA-member firm.

All data presented is based on the most recent information available to Morningstar as of the release date and may or may not be an accurate reflection of current data for securities included in the fund's portfolio. There is no assurance that the data will remain the same.

Unless otherwise specified, the definition of "funds" used throughout this Disclosure Statement includes closed-end funds, exchange-traded funds, grantor trusts, index mutual funds, open-ended mutual funds, and unit investment trusts. It does not include exchange-traded notes or exchange-traded commodities.

Prior to 2016, Morningstar's methodology evaluated open-end mutual funds and exchange-traded funds as separate groups. Each group contained a subset of the current investments included in our current comparative analysis. In this report, historical data presented on a calendar-year basis and trailing periods ending at the most-recent month-end reflect the updated methodology.

Risk measures (such as alpha, beta, r-squared, standard deviation, mean, or Sharpe ratio) are calculated for securities or portfolios that have at least a three-year history.

Most Morningstar rankings do not include any adjustment for one-time sales charges, or loads. Morningstar does publish load-adjusted returns, and ranks such returns within a Morningstar Category in certain reports. The total returns for ETFs and fund share classes without one-time loads are equal to Morningstar's calculation of load-adjusted returns. Share classes that are subject to one-time loads relating to advice or sales commissions have their returns adjusted as part of the load-adjusted return calculation to reflect those loads.

Comparison of Fund Types

Funds, including closed-end funds, exchange-traded funds (ETFs), money market funds, open-end funds, and unit investment trusts (UITs), have many similarities, but also many important differences. In general, publically-offered funds are investment companies registered with the Securities and Exchange Commission under the Investment Company Act of 1940, as amended. Funds pool money from their investors and manage it according to an investment strategy or objective, which can vary greatly from fund to fund. Funds have the ability to offer diversification and professional management, but also involve risk, including the loss of principal.

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. A closed-end mutual fund's expense ratio is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Closed-end funds may also have 12b-1 fees. Income distributions and capital gains of the closed-end fund are subject to income tax, if held in a taxable account.

An ETF is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, an ETF can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. ETFs are not actively managed, so their value may be affected by a general decline in the U.S. market segments relating to their underlying indexes. Similarly, an imperfect match between an ETF's holdings and those of its underlying index may cause its performance to vary from that of its underlying index. The expense ratio of an ETF is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. ETFs do not have 12b-1 fees or sales loads. Capital gains from funds held in a taxable account are subject to income tax. In many, but not all cases, ETFs are generally considered to be more tax-efficient when compared to similarly invested mutual funds.

Holding company depository receipts (HOLDRs) are similar to ETFs, but they focus on narrow industry groups. HOLDRs initially own 20 stocks, which are unmanaged, and can become more concentrated due to mergers, or the disparate performance of their holdings. HOLDRs can only be bought in 100-share increments. Investors may exchange shares of a HOLDR for its underlying stocks at any time.

A money-market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and are not guaranteed by a bank or other financial institution.

An open-end fund is an investment company that issues shares on a continuous basis. Shares can be purchased from the open-end mutual fund itself, or through an intermediary, but cannot be traded on a secondary market, such as the New York Stock Exchange. Investors pay the open-end mutual fund's current net asset value plus any initial sales loads. Net asset value is calculated daily, at the close of business. Open-end mutual fund shares can be redeemed, or sold back to the fund or intermediary, at their current net asset value minus any deferred sales loads or redemption fees. The expense ratio for an open-end mutual fund is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Open-end funds may also have 12b-1 fees. Income distributions and capital gains of the open-end fund are subject to income tax, if held in a taxable account.

A unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units. A one-time initial sales charge is deducted from an investment made into the trust. UIT investors may also pay creation and development fees, organization costs, and/or trustee and operation expenses. UIT units may be redeemed by the sponsor at their net

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

asset value minus a deferred sales charge, and sold to other investors. UITs have set termination dates, at which point the underlying securities are sold and the sales proceeds are paid to the investor. Typically, a UIT investment is rolled over into successive trusts as part of a long-term strategy. A rollover fee may be charged for the exercise of rollover purchases. There are tax consequences associated with rolling over an investment from one trust to the next.

Performance

The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares, when sold, may be worth more or less than the original investment. Fund portfolio statistics change over time. Funds are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution.

Morningstar calculates after-tax returns using the highest applicable federal marginal income tax rate plus the investment income tax and Medicare surcharge. As of 2018, this rate is 37% plus 3.8% investment income plus 0.9% Medicare surcharge, or 41.7%. This rate changes periodically in accordance with changes in federal law.

Pre-Inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the inception of the share class of the fund shown in this report ("Report Share Class"). If pre-inception returns are shown, a performance stream consisting of the Report Share Class and older share class(es) is created. Morningstar adjusts pre-inception returns downward to reflect higher expenses in the Report Share Class, we do not hypothetically adjust returns upwards for lower expenses. For more information regarding calculation of pre-inception returns please see the Morningstar Extended Performance Methodology.

When pre-inception data is presented in the report, the header at the top of the report will indicate this. In addition, the pre-inception data included in the report will appear in italics.

While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of newer share classes of a fund, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. For example, the fee structures of a retail share class will vary from that of an institutional share class, as retail shares tend to have higher operating expenses and sales charges. These adjusted historical returns are not actual returns. The underlying investments in the share classes used to calculate the pre-performance string will likely vary from the underlying investments held in the fund after inception. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the fund itself.

12b1 Expense %

A 12b-1 fee is a fee used to pay for a mutual fund's distribution costs. It is often used as a commission to brokers for selling the fund. The amount of the fee is taken from a fund's returns.

Alpha

Alpha is a measure of the difference between a security or portfolio's actual returns and its expected performance, given its level of risk (as measured by beta.) Alpha is often seen as a measure of the value added or subtracted by a portfolio manager.

Asset Allocation

Asset Allocation reflects asset class weightings of the portfolio. The "Other" category includes security types that are not neatly classified in the other asset classes, such as convertible bonds and preferred stocks, or cannot be classified by Morningstar as a result of missing data. Morningstar may display asset allocation data in several ways, including tables or pie charts. In addition, Morningstar may compare the asset class breakdown of the fund against its three-year average, category average, and/or index proxy.

Asset allocations shown in tables may include a breakdown among the long, short, and net (long positions net of short) positions. These statistics summarize what the fund's managers are buying and how they are positioning the fund's portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the fund's exposure and risk. Long positions involve buying the security outright and selling it later, with the hope the security's price rises over time. Short positions are taken with the hope of benefitting from anticipated price declines. The investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience a loss buying it at a higher price than the sale price.

Most fund portfolios hold fairly conventional securities, such as long positions in equities and bonds. Morningstar may generate a colored pie chart for these portfolios. Other portfolios use other investment strategies or securities, such as short positions or derivatives, in an attempt to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while other have unique return and risk characteristics. Portfolios that incorporate investment strategies resulting in short positions or portfolio with relatively exotic derivative positions often report data to Morningstar that does not meet the parameters of the calculation underlying a pie chart's generation. Because of the nature of how these securities are reported to Morningstar, we may not always get complete portfolio information to report asset allocation. Morningstar, at its discretion, may determine if unidentified characteristics of fund holdings are material. Asset allocation and other breakdowns may be rescaled accordingly so that percentages total to 100 percent. (Morningstar used discretion to determine if unidentified characteristics of fund holdings are material, pie charts and other breakdowns may rescale identified characteristics to 100% for more intuitive presentation.)

Note that all other portfolio statistics presented in this report are based on the long (or long rescaled) holdings of the fund only.

Average Effective Duration

Duration is a time measure of a bond's interest-rate sensitivity. Average effective duration is a weighted average of the duration of the fixed-income securities within a portfolio.

Average Effective Maturity

Average Effective Maturity is a weighted average of the maturities of all bonds in a portfolio.

Average Weighted Coupon

A coupon is the fixed annual percentage paid out on a bond. The average weighted coupon is the asset-weighted coupon of each bond in the portfolio.

Average Weighted Price

Average Weighted Price is the asset-weighted price of bonds held in a portfolio, expressed as a percentage of par (face) value. This number reveals if the portfolio favors bonds selling at prices above or below par value (premium or discount securities respectively.)

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Best Fit Index
Alpha, beta, and R-squared statistics are presented for a broad market index and a "best fit" index. The Best Fit Index identified in this report was determined by Morningstar by calculating R-squared for the fund against approximately 100 indexes tracked by Morningstar. The index representing the highest R-squared is identified as the best fit index. The best fit index may not be the fund's benchmark, nor does it necessarily contain the types of securities that may be held by the fund or portfolio.

Beta
Beta is a measure of a security or portfolio's sensitivity to market movements (proxied using an index.) A beta of greater than 1 indicates more volatility than the market, and a beta of less than 1 indicates less volatility than the market.

Credit Quality Breakdown
Credit Quality breakdowns are shown for corporate-bond holdings in the fund's portfolio and depict the quality of bonds in the underlying portfolio. It shows the percentage of fixed-income securities that fall within each credit-quality rating as assigned by a Nationally Recognized Statistical Rating Organization (NRSRO). Bonds not rated by an NRSRO are included in the Other/Not-Classified category.

Deferred Load %
The back-end sales charge or deferred load is imposed when an investor redeems shares of a fund. The percentage of the load charged generally declines the longer the fund's shares are held by the investor. This charge, coupled with 12b-1 fees, commonly serves as an alternative to a traditional front-end load.

Expense Ratio %
The expense ratio is the annual fee that all funds charge their shareholders. It expresses the percentage of assets deducted each fiscal year for fund expenses, including 12b-1 fees, management fees, administrative fees, operating costs, and all other asset-based costs incurred by the fund. Portfolio transaction fees, or brokerage costs, as well as front-end or deferred sales charges are not included in the expense ratio. The expense ratio, which is deducted from the fund's average net assets, is accrued on a daily basis. The gross expense ratio, in contrast to the net expense ratio, does not reflect any fee waivers in effect during the time period.

Front-end Load %
The initial sales charge or front-end load is a deduction made from each investment in the fund and is generally based on the amount of the investment.

Geometric Average Market Capitalization
Geometric Average Market Capitalization is a measure of the size of the companies in which a portfolio invests.

Growth of 10,000
For funds, this graph compares the growth of an investment of 10,000 (in the base currency of the fund) with that of an index and/or with that of the average for all funds in its Morningstar Category. The total returns are not adjusted to reflect sales charges or the effects of taxation but are adjusted to reflect actual ongoing fund expenses, and they assume reinvestment of dividends and capital gains. If adjusted, effects of sales charges and taxation would reduce the performance quoted. If pre-inception data is included in the analysis, it will be graphed.

The index in the Growth of 10,000 graph is an unmanaged portfolio of specified securities and cannot be invested in directly. The index does not reflect any initial or ongoing expenses. A fund's portfolio may differ significantly from the securities in the index. The index is chosen by Morningstar.

Management Fees %
The management fee includes the management and administrative fees listed in the Management Fees section of a fund's prospectus. Typically, these fees represent the costs shareholders paid for management and administrative services over the fund's prior fiscal year.

Maximum Redemption Fee %
The Maximum Redemption Fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase (for example, 30, 180, or 365 days).

Mean
Mean is the annualized geometric return for the period shown.

Morningstar Analyst Rating™
Effective October 31, 2019, Morningstar updated its Morningstar Analyst Rating™ methodology. For any Morningstar Analyst Rating published on or prior to October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark, or in the case of exchange-traded funds and index mutual funds, a relevant peer group, over the long term on a risk-adjusted basis. They consider quantitative and qualitative factors in their research, and the weight of each pillar may vary. The Analyst Rating scale is Gold, Silver, Bronze, Neutral, and Negative. A Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's conviction in a fund's prospects for outperformance. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at east every 14 months. For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to global.morningstar.com/managerdisclosures/.

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

For any Morningstar Analyst Rating published after October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five-pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark over the long term on a risk adjusted basis. They consider quantitative and qualitative factors in their research. For actively managed strategies, people and process each receive a 45% weighting in their analysis, while parent receives a 10% weighting. For passive strategies, process receives an 80% weighting, while people and parent each receive a

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

10% weighting. For both active and passive strategies, performance has no explicit weight as it is incorporated into the analysis of people and process; price at the share-class level (where applicable) is directly subtracted from an expected gross alpha estimate derived from the analysis of the other pillars. The impact of the weighted pillar scores for people, process and parent on the final Analyst Rating is further modified by a measure of the dispersion of historical alphas among relevant peers. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, the modification by alpha dispersion is not used.

For active funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that an active fund will be able to deliver positive alpha net of fees relative to the standard benchmark index assigned to the Morningstar category. The level of the rating relates to the level of expected positive net alpha relative to Morningstar category peers for active funds. For passive funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will be able to deliver a higher alpha net of fees than the lesser of the relevant Morningstar category median or 0. The level of the rating relates to the level of expected net alpha relative to Morningstar category peers for passive funds. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will deliver a weighted pillar score above a predetermined threshold within its peer group. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at least every 14 months.

For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

Morningstar Quantitative Rating™

Morningstar's quantitative fund ratings consist of: (i) Morningstar Quantitative Rating (overall score), (ii) Quantitative Parent pillar, (iii) Quantitative People pillar, and (iv) Quantitative Process pillar (collectively the "Quantitative Fund Ratings".).The Quantitative Fund Ratings are calculated monthly and derived from the analyst-driven ratings of a fund's peers as determined by statistical algorithms. Morningstar, Inc. calculates Quantitative Fund Ratings for funds when an analyst rating does not exist as part of its qualitative coverage.

- ***Morningstar Quantitative Rating:*** Intended to be comparable to Morningstar's Analyst Ratings for open-end funds and ETFs, which is the summary expression of Morningstar's forward-looking analysis of a fund. The Morningstar Analyst Rating is based on the analyst's conviction in the fund's ability to outperform its peer group and/or relevant benchmark on a risk-adjusted basis over a full market cycle of at least 5 years. Ratings are assigned on a five-tier scale with three positive ratings of Gold, Silver, and Bronze, a Neutral rating, and a Negative rating. Morningstar calculates the Morningstar Quantitative Rating using a statistical model derived from the Morningstar Analyst Rating our fund analysts assign to open-end funds and ETFs. Please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx for information about Morningstar Analyst Rating Morningstar's fund analysts assign to funds.

- ***Quantitative Parent pillar:*** Intended to be comparable to Morningstar's Parent pillar scores, which provides Morningstar's analyst opinion on the stewardship quality of a firm. Morningstar calculates the Quantitative Parent pillar using an algorithm designed to predict the Parent Pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative People pillar:*** Morningstar's People pillar scores, which provides Morningstar's analyst opinion on the fund manager's talent, tenure, and resources. Morningstar calculates the Quantitative People pillar using an algorithm designed to predict the People pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative Process Pillar:*** Intended to be comparable to Morningstar's Process pillar scores, which provides Morningstar's analyst opinion on the fund's strategy and whether the management has a competitive advantage enabling it to execute the process and consistently over time. Morningstar calculates the Quantitative Process pillar using an algorithm designed to predict the Process pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), and Low (1).

Morningstar Quantitative Ratings **have not been made available** to the issuer of the security prior to publication.

Risk Warning

The quantitative fund ratings are not statements of fact. Morningstar does not guarantee the completeness or accuracy of the assumptions or models used in determining the quantitative fund ratings. In addition, there is the risk that the return target will not be met due to such things as unforeseen changes in changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, and tax rate. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions. A change in the fundamental factors underlying the quantitative fund ratings can mean that the recommendation is subsequently no longer accurate.

For more information about Morningstar's quantitative methodology, please visit https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

Morningstar Category

Morningstar Category is assigned by placing funds into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a fund's prospectus may not be sufficiently detailed for our proprietary classification methodology. Funds are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the fund is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

Morningstar Rank

Morningstar Rank is the total return percentile rank within each Morningstar Category. The highest (or most favorable) percentile rank is zero and the lowest (or least favorable) percentile rank is 100. Historical percentile ranks are based on a snapshot of a fund at the time of calculation.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Morningstar Rating™

The Morningstar Rating™for funds, or "star rating", is calculated for funds and separate accounts with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The Morningstar Rating does not include any adjustment for sales loads. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. For more information about the Morningstar Rating for funds, including its methodology, please go to global.morningstar.com/managerdisclosures

The Morningstar Return rates a fund's performance relative to other managed products in its Morningstar Category. It is an assessment of a product's excess return over a risk-free rate (the return of the 90-day Treasury Bill) in comparison with the products in its Morningstar category. In each Morningstar category, the top 10% of products earn a High Morningstar Return (High), the next 22.5% Above Average (+Avg), the middle 35% Average (Avg), the next 22.5% Below Average (-Ave), and the bottom 10% Low (Low). Morningstar Return is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Risk

Morningstar Risk evaluates a fund's downside volatility relative to that of other products in its Morningstar Category. It is an assessment of the variations in monthly returns, with an emphasis on downside variations, in comparison with the products in its Morningstar category. In each Morningstar category, the 10% of products with the lowest measured risk are described as Low Risk (Low), the next 22.5% Below Average (-Avg), the middle 35% Average (Avg), the next 22.5% Above Average (+Avg), and the top 10% High (High). Morningstar Risk is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Style Box™

The Morningstar Style Box™ reveals a fund's investment strategy as of the date noted on this report.

For equity funds, the vertical axis shows the market capitalization of the long stocks owned, and the horizontal axis shows the investment style (value, blend, or growth.) A darkened square in the style box indicates the weighted average style of the portfolio.

For fixed-income funds, the vertical axis shows the credit quality of the long bonds owned and the horizontal axis shows interest-rate sensitivity as measured by a bond's effective duration. Morningstar seeks credit rating information from fund companies on a periodic basis (for example, quarterly). In compiling credit rating information, Morningstar accepts credit ratings reported by fund companies that have been issued by all Nationally Recognized Statistical Rating Organizations. For a list of all NRSROs, please visit http://www.sec.gov/divisions/marketreg/ ratingagency.htm. Additionally, Morningstar accepts foreign credit ratings from widely recognized or registered rating agencies. If two rating organizations/ agencies have rated a security, fund companies are to report the lower rating; if three or more organizations/agencies have rated a security, fund companies are to report the median rating; and in cases where there are more than two organization/agency ratings and a median rating does not exist, fund companies are to use the lower of the two middle ratings.

Please Note: Morningstar, Inc. is not an NRSRO nor does it issue a credit rating on the fund. NRSRO or rating agency ratings can change from time to time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low," "medium," or "high" based on their average credit quality. Funds with a "low" credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; "medium" are those less than "AA-", but greater or equal to "BBB-"; and "high" are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index, which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal-bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases, static breakpoints are used. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-U.S. taxable and non-U.S. domiciled fixed-income funds, static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: more than 3.5 years but less than or equal to 6 years; (iii) Extensive: more than 6 years.

Interest-rate sensitivity for non-U.S. domiciled funds (excluding funds in convertible categories) may be measured with modified duration when effective duration is not available.

P/B Ratio TTM

The Price/Book Ratio (or P/B Ratio) for a fund is the weighted average of the P/B Ratio of the stocks in its portfolio. Book value is the total assets of a company, less total liabilities. The P/B ratio of a company is calculated by dividing the market price of its outstanding stock by the company's book value, and then adjusting for the number of shares outstanding. Stocks with negative book values are excluded from this calculation. It shows approximately how much an investor is paying for a company's assets based on historical valuations.

P/C Ratio TTM

The Price/Cash Flow Ratio (or P/C Ratio) for a fund is the weighted average of the P/C Ratio of the stocks in its portfolio. The P/C Ratio of a stock represents the amount an investor is willing to pay for a dollar generated from a company's operations. It shows the ability of a company to generate cash and acts as a gauge of liquidity and solvency.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

P/E Ratio TTM
The Price/Earnings Ratio (or P/E Ratio) for a fund is the weighted average of the P/E Ratios of the stocks in its portfolio. The P/E Ratio of a stock is the stock's current price divided by the company's trailing 12-month earnings per share. A high P/E Ratio usually indicates the market will pay more to obtain the company's earnings because it believes in the company's abilities to increase their earnings. A low P/E Ratio indicates the market has less confidence that the company's earnings will increase, however value investors may believe such stocks have an overlooked or undervalued potential for appreciation.

Percentile Rank in Category
Percentile Rank is a standardized way of ranking items within a peer group, in this case, funds within the same Morningstar Category. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable for returns (high returns), while higher percentile ranks are generally more favorable for risk measures (low risk).

Performance Quartile
Performance Quartile reflects a fund's Morningstar Rank.

Potential Capital Gains Exposure
Potential Capital Gains Exposure is an estimate of the percent of a fund's assets that represent gains. It measures how much the fund's assets have appreciated, and it can be an indicator of possible future capital gains distributions. A positive potential capital gains exposure value means that the fund's holdings have generally increased in value while a negative value means that the fund has reported losses on its book.

Quarterly Returns
Quarterly Return is calculated applying the same methodology as Total Return except it represents return through each quarter-end.

R-Squared
R-squared is the percentage of a security or portfolio's return movements that are explained by movements in its benchmark index, showing the degree of correlation between the security or portfolio and the benchmark. This figure is helpful in assessing how likely it is that beta and alpha are statistically significant. A value of 1 indicates perfect correlation between the security or portfolio and its benchmark. The lower the R-squared value, the lower the correlation.

Regional Exposure
The regional exposure is a display of the portfolio's assets invested in the regions shown on the report.

Sector Weightings
Super Sectors represent Morningstar's broadest classification of equity sectors by assigning the 11 equity sectors into three classifications. The Cyclical Super Sector includes industries significantly impacted by economic shifts, and the stocks included in these sectors generally have betas greater than 1. The Defensive Super Sector generally includes industries that are relatively immune to economic cycles, and the stocks in these industries generally have betas less than 1. The Sensitive Super Sector includes industries that ebb and flow with the overall economy, but not severely so. Stocks in the Sensitive Super Sector generally have betas that are close to 1.

Share Change
Shares Change represents the number of shares of a stock bought or sold by a fund since the previously reported portfolio of the fund.

Sharpe Ratio
Sharpe Ratio uses standard deviation and excess return (a measure of a security or portfolio's return in excess of the U.S. Treasury three-month Treasury Bill) to determine the reward per unit of risk.

Standard Deviation
Standard deviation is a statistical measure of the volatility of the security or portfolio's returns. The larger the standard deviation, the greater the volatility of return.

Standardized Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experience if the security was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Total Return
Total Return, or "Non Load-Adjusted Return", reflects performance without adjusting for sales charges (if applicable) or the effects of taxation, but it is adjusted to reflect all actual ongoing security expenses and assumes reinvestment of dividends and capital gains. It is the return an investor would have experienced if the fund was held throughout the period. If adjusted for sales charges and the effects of taxation, the performance quoted would be significantly reduced.

Total Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Trailing Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experienced if the fund was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Load-Adjusted Monthly Return is calculated applying the same methodology as Standardized Return, except that it represents return through month-end. As with Standardized Return, it reflects the impact of sales charges and ongoing fund expenses, but not taxation. If adjusted for the effects of taxation, the performance quoted would be significantly different.

Trailing Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Investment Risks

International/Emerging Market Equities: Investing in international securities involves special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Sector Strategies: Portfolios that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

to increased industry-specific risks.

Non-Diversified Strategies: Portfolios that invest a significant percentage of assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

Small Cap Equities: Portfolios that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

Mid Cap Equities: Portfolios that invest in companies with market capitalization below $10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

High-Yield Bonds: Portfolios that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

Tax-Free Municipal Bonds: The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

Bonds: Bonds are subject to interest rate risk. As the prevailing level of bond interest rates rise, the value of bonds already held in a portfolio declines. Portfolios that hold bonds are subject to declines and increases in value due to general changes in interest rates.

HOLDRs: The investor should note that these are narrow industry-focused products that, if the industry is hit by hard times, will lack diversification and possible loss of investment would be likely. These securities can trade at a discount to market price, ownership is of a fractional share interest, the underlying investments may not be representative of the particular industry, the HOLDR might be delisted from the AMEX if the number of underlying companies drops below nine, and the investor may experience trading halts.

Hedge Funds: The investor should note that hedge fund investing involves specialized risks that are dependent upon the type of strategies undertaken by the manager. This can include distressed or event-driven strategies, long/short strategies, using arbitrage (exploiting price inefficiencies), international investing, and use of leverage, options and/or derivatives. Although the goal of hedge fund managers may be to reduce volatility and produce positive absolute return under a variety of market conditions, hedge funds may involve a high degree of risk and are suitable only for investors of substantial financial means who could bear the entire loss of their investment.

Bank Loan/Senior Debt: Bank loans and senior loans are impacted by the risks associated with fixed income in general, including interest rate risk and default risk. They are often non-investment grade; therefore, the risk of default is high. These securities are also relatively illiquid. Managed products that invest in bank loans/senior debt are often highly leveraged, producing a high risk of return volatility.

Exchange Traded Notes (ETNs): ETNs are unsecured debt obligations. Any repayment of notes is subject to the issuer's ability to repay its obligations. ETNs do not typically pay interest.

Leveraged ETFs: Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their fund objectives on a daily basis (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e. 200%, 300%, -200%, or -300% or 2X, 3X, -2X, -3X). Compounding has the ability to affect the performance of the fund to be either greater or less than the index performance multiplied by the multiple stated within the funds objective over a stated time period.

Short Positions: When a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

Long-Short: Due to the strategies used by long-short funds, which may include but are not limited to leverage, short selling, short-term trading, and investing in derivatives, these funds may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

Liquidity Risk: Closed-end fund, ETF, and HOLDR trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

Market Price Risk: The market price of ETFs, HOLDRs, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

Market Risk: The market prices of ETFs and HOLDRs can fluctuate as a result of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

Target-Date Funds: Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximate date when investors expect to begin withdrawing their money. A target-date fund's investment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including at the fund's target date.

High double- and triple-digit returns: High double- and triple-digit returns were the result of extremely favorable market conditions, which may not continue to be the case. High returns for short time periods must not be a major factor when making investment decisions.

Benchmark Disclosure

BBgBarc US Agg Bond TR USD
This index is composed of the BarCap Government/Credit Index, the Mortgage-Backed Securities Index, and the Asset-Backed Securities Index. The returns we publish for the index are total returns, which includes the daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core US Aggregate Bond ETF.

MSCI ACWI Ex USA NR USD
The MSCI AC World ex USA is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets. The index consists of 48 developed and emerging market country indices. The returns we publish for the index are total returns, which include reinvestment of dividends. The constituents displayed for this index are

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

from the following proxy: iShares Core MSCI EAFE ETF.

MSCI EAFE NR USD
This Europe, Australasia, and Far East index is a market-capitalization-weighted index of 21 non-U.S., industrialized country indexes.

This disclosure applies to all MSCI indices: Certain information included herein is derived by Morningstar in part from MSCI's Index Constituents (the "Index Data"). However, MSCI has not reviewed any information contained herein and does not endorse or express any opinion such information or analysis. MSCI does not make any express or implied warranties, representations or guarantees concerning the Index Data or any information or data derived therefrom, and in no event will MSCI have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of this information.

MSCI EM NR USD
Description unavailable. The constituents displayed for this index are from the following proxy: Amundi IS MSCI Emerging Markets.

S&P 500 TR USD
A market capitalization-weighted index composed of the 500 most widely held stocks whose assets and/or revenues are based in the US; it's often used as a proxy for the U.S. stock market. TR (Total Return) indexes include daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: SPDR® S&P 500 ETF Trust.

USTREAS T-Bill Auction Ave 3 Mon
Three-month T-bills are government-backed, short-term investments considered to be risk-free and as good as cash because the maturity is only three months. Morningstar collects yields on the T-bill on a weekly basis from the Wall Street Journal.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Fidelity International Index Fund (FSPSX)

Firm Background*

Fidelity Institutional Asset Management Trust Company (FIAM) is the US-based investment management subsidiary of Fidelity Management & Research (FRM). FRM is a large, privately-held, multi-service financial services firm founded in 1946 by Edward C. Johnson. FMR is currently under the leadership of CEO Abigail Johnson. Approximately 49% of FMR is owned by Ms. Johnson and other members of the Johnson family. 51% is held by employees and former employees.

FIAM was established in 2015 through the combination of Pyramis Global Advisors and Fidelity Financial Advisor Solutions, which served, respectively, institutional and retail investment management clients. The firm manages roughly $175 billion across fixed income (38%), multi-asset (32%), and equity (28%), with cash and alternatives comprising the balance. Judy Marlinski is President of FIAM, She reports to Mike Dervin, Head of Fidelity Institutional at FMR.

Organization: Satisfactory*

FMR and, by extension, FIAM are highly complex and deeply intertwined organizations. Differences between functional business units and legal entities are often indistinct, but the high degree of involvement from the senior ranks of the FMR organization, particularly given the hands-on approach of FMR CEO Abigail Johnson, appear to manage this complexity effectively. FIAM is large, owing a portion of its success to the strong brand and distribution power of the parent company. The firm maintains a diversified client base and product line, as well as a strong investment culture. Senior leadership at FIAM has experienced some significant changes over the past two years, most notably the retirement of Charlie Morrison, FMR's President of Asset Management, in December of 2018 and the departure of Scott Cuoto, President of FIAM in mid-2017. The President of FIAM reports into the President of Asset Management at FRM Additionally, the firm has experienced high profile sexual harassment claims in recent years, leading to some turnover among senior investment professionals. This may indicate that the firm has non-investment-related cultural issues, which can still damage the likelihood of success for the investment teams. However, senior management responded forcefully, and we will continue to monitor the organization for cultural and legal issues.

Strategy**

Fidelity® International Index Fund seeks to provide investment results that correspond to the total return of foreign stock markets.

Normally investing at least 80% of assets in common stocks included in the Morgan Stanley Capital International Europe, Australasia, Far East Inde1 x, which represents the performance of foreign stock markets.

Summary***

Fidelity International Index has a well-diversified portfolio and rock-bottom fee that should add up to strong category-relative performance over the long-run. It earns a Morningstar Analyst Rating of Silver.

This fund tracks the MSCI EAFE Index. It holds large- and mid-cap stocks from 21 overseas developed markets. It weights them by market capitalization, an approach that benefits investors by capturing the market's collective opinion of each stock's value while keeping turnover low.

Market-cap weighting can be tough to beat because the market tends to do a good job valuing stocks over the long term. Occasionally it will increase the fund's exposure to expensive stocks when investors get excited about an area of the market. But this doesn't undermine its long-term efficacy.

The portfolio's solid diversification mitigates the consequences of owning the worst-performing names. It holds more than 900 stocks and has only 12% of assets in its 10 largest names. Its regional composition looks modestly different from a typical fund in the category because it excludes emerging-markets stocks. But stocks from these regions account for about 6% of a typical peer's portfolio, so ignoring them shouldn't have a large impact on the fund's category-relative performance.

Performance over the past decade has been good but not great. The fund managed to beat the category average by 61 basis points annually over the decade ending in November 2019. But this advantage didn't allow it stand out among its competitors. Its better-performing peers tended to be more conservative, allowing them to hold up better during market declines. Over the long run, fees tend to play a big role in determining category relative performance. So, this fund's ultra-low expense ratio should provide a strong long-term edge.

Performance***

The management team has delivered sound index-tracking performance, but the fund's return has not stood out among its peers in Morningstar's foreign large-blend category over the 10 years through November 2019. Foreign markets performed poorly by historical standards over this period. Many of the better-performing strategies in the category built their success through more-defensive portfolios. They tended to invest in relatively stable stocks or hold cash, which allowed them to better weather drawdowns than index tracking funds like this one.

Stocks listed in Japan and the United Kingdom collectively account for more than 42% of this portfolio. Consequently, the performance of these two markets can have an outsize effect on performance. Over the past decade, Japanese stocks have been a tailwind while those from the U.K. were less advantageous.

This fund does not hedge its currency risk. Over much of the past decade foreign-exchange rates have subtracted from its performance because the U.S. dollar has appreciated against the foreign currencies represented in this portfolio. Foreign-exchange rates tend to move in cycles, so an appreciating dollar will not always be a disadvantage. Over the long run, the impact of foreign exchange rates on total return tends to wash out.

Price***

It's critical to evaluate expenses, as they come directly out of returns. The share class on this report levies a fee that ranks in its Morningstar category's cheapest quintile. Based on our assessment of the fund's People, Process and Parent pillars in the context of these fees, we think this share class will be able to deliver positive alpha relative to the category benchmark index, explaining its Morningstar Analyst Rating of Silver.

Process: Above Average***

This strategy earns an Above Average Process Pillar rating for capturing most of the overseas market capitalization while diversifying its stock and sector-specific risks.

The fund's portfolio managers use full replication to track the MSCI EAFE Index. This benchmark starts with all stocks listed in 21 foreign developed markets. It targets companies that land in the top 85% of each

country's market cap, with a buffer around that threshold to rein in unnecessary turnover. The index applies some additional liquidity screens to ensure its holdings are investable, and it weights its final constituents by their market capitalization. This approach helps control turnover and trading costs as each stock's weight will adjust proportionally to price changes. The index reconstitutes semiannually in May and November with smaller adjustments in February and August, such as adding recent IPOs.

The resulting portfolio captures a majority of the available foreign market capitalization. It effectively diversifies stock-specific risk, with only 12% of assets in its 10 largest holdings. Broad diversification causes the portfolio to look similar to the average of its category peers in certain ways. Sector weightings are comparable, with financial and industrial stocks collectively representing one-third of the fund's assets.

Country and regional allocations aren't far off the category average either. The fund modestly differs from its peers in this regard, but the gaps don't pose a significant threat to its category relative performance. Eurozone stocks represent 30% of the fund, while Japan and the United Kingdom make up an additional 24% and 16%, respectively.

The fund's selection universe doesn't include stocks listed in emerging markets and Canada. Japanese stocks mostly fill this gap, which is consistent with diversified, foreign developed market indexes. This strategy does not include small-cap names. This, combined with its market-cap-weighted approach, tilts the portfolio toward large-cap multinational corporations, with companies like Nestle, Toyota, and BP among its biggest names.

People: Average***

The fund's management team is experienced and well-supported. But it earns an Average People Pillar rating because personnel turnover has been on the high side.

The fund is managed by a team of five managers from Geode Capital Management, which subadvises Fidelity's index-tracking funds. Splitting responsibilities across several managers can reduce the impact of departures. However, six managers have left the fund since September 2012. Most recently, Tom Brussard was removed as a named manager in April 2018 and Patrick Waddell retired from Geode in April 2019. Payal Kapoor Gupta was added to the roster in June 2019 to fill the gap left by Waddell. She previously managed portfolios at State Street Global Advisors.

Louis Bottari, Peter Matthew, Robert Regan, and Deane Gyllenhaal are the other named managers on this fund. Bottari is the longest tenured manager, having served since January 2009, while Matthew joined three years later in 2012. Regan and Gylenhaal have only been at Geode for a few years, but they previously worked as portfolio managers for SSGA and Hartford Investment Management, respectively.

* Source: BNY Mellon Manager Research Group, as of July 2019
** Source: Fidelity (FMR, LLC), as of 6/30/2020
*** Source: Morningstar, Inc., as of 12/9/2019

Release date 07-31-2020 | Note: Portions of the analysis are based on pre-inception returns. Please read disclosure for more information. Page 1 of 11

Fidelity® International Index (USD)

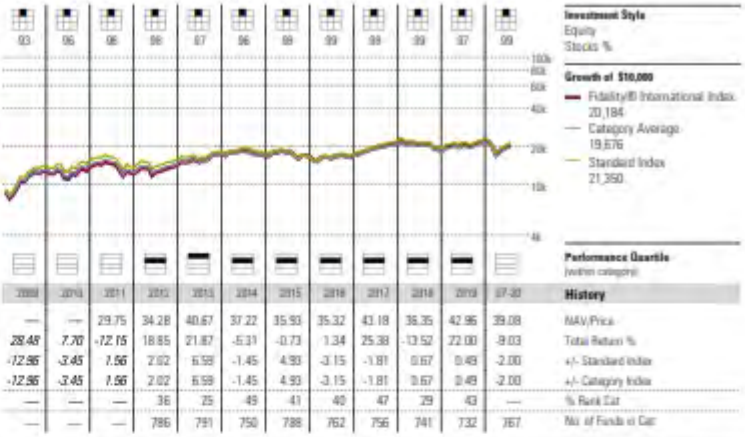
Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Silver 12-09-2019	★★★ 633 US Fund Foreign Large Blend	MSCI ACWI Ex USA NR USD	MSCI ACWI Ex USA NR USD	US Fund Foreign Large Blend

Performance 07-31-2020

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2018	-0.93	-1.60	1.28	-12.41	-13.52
2019	10.01	3.70	-0.92	7.93	22.00
2020	-23.02	15.78	—	—	-9.03

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-0.85	0.68	2.29	—	5.68
Std 06-30-2020	-4.69	—	2.22	—	5.49
Total Return	-0.85	0.68	2.29	5.14	5.68
+/- Std Index	-1.51	-0.70	-0.93	0.67	—
+/- Cat Index	-1.51	-0.70	-0.93	0.67	—
% Rank Cat	57	49	51	33	
No. in Cat	744	633	520	380	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—



History	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	07-20
NAV/Price	—	—	29.75	34.28	40.67	37.22	35.93	35.32	43.18	36.35	42.96	39.08
Total Return %	28.48	7.70	-12.15	18.85	21.87	-5.31	-0.73	1.34	25.38	-13.52	22.00	-9.03
+/- Standard Index	-12.95	-3.45	1.56	2.02	6.59	-1.45	4.93	-3.15	-1.81	0.67	0.49	-2.00
+/- Category Index	-12.95	-3.45	1.56	2.02	6.59	-1.45	4.93	-3.15	-1.81	0.67	0.49	-2.00
% Rank Cat	—	—	—	36	25	49	41	40	47	29	43	—
No. of Funds in Cat	—	—	—	786	791	750	788	762	756	741	732	767

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-835-5092 or visit www.institional.fidelity.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.04
12b1 Expense %	NA
Net Expense Ratio %	**0.04**
Gross Expense Ratio %	**0.04**

Risk and Return Profile

	3 Yr 633 funds	5 Yr 520 funds	10 Yr 380 funds
Morningstar Rating™	3★	3★	4★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	Avg	Avg	Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	15.34	14.21	14.73
Mean	0.68	2.29	5.14
Sharpe Ratio	0.01	0.15	0.37

MPT Statistics	Standard Index	Best Fit Index MSCI EAFE NR USD
Alpha	-0.74	0.09
Beta	0.94	1.01
R-Squared	97.18	98.96
12-Month Yield		—
Potential Cap Gains Exp		-3.21%

Portfolio Analysis 06-30-2020

Asset Allocation %	Net %	Long %	Short %
Cash	1.38	1.38	0.00
US Stocks	0.59	0.59	0.00
Non-US Stocks	97.91	97.91	0.00
Bonds	0.05	0.05	0.00
Other/Not Clsfd	0.08	0.08	0.00
Total	100.00	100.00	0.00

Equity Style

Value	Blend	Growth	
	■		Large
			Mid
			Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	17.4	1.03	1.01
P/C Ratio TTM	8.7	0.96	0.96
P/B Ratio TTM	1.5	0.94	0.90
Geo Avg Mkt Cap $mil	34503	0.91	0.88

Fixed-Income Style

Ltd	Mod	Ext	
			High
			Med
			Low

Avg Eff Maturity	—
Avg Eff Duration	—
Avg Wtd Coupon	—
Avg Wtd Price	—

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	0.6	0.06
Greater Europe	62.4	1.42
Greater Asia	37.0	0.79

Share Chg since 05-2020	Share Amount	Holdings: 933 Total Stocks , 1 Total Fixed-Income, 2% Turnover Ratio	Net Assets %
⊖	6 mil	Nestle SA	2.42
☼	6,321	MSCI EAFE Index Future Sept 20	2.17
⊖	1 mil	Roche Holding AG Dividend Right Ce	1.79
⊕	357 mil	Fidelity Revere Str Tr	1.38
⊖	4 mil	Novartis AG	1.37
⊖	809,488	ASML Holding NV	1.14
⊕	2 mil	SAP SE	1.07
⊖	2 mil	AstraZeneca PLC	1.00
⊖	4 mil	Toyota Motor Corp	0.98
⊖	528,241	LVMH Moet Hennessy Louis Vuitton SE	0.90
⊖	3 mil	Novo Nordisk A/S B	0.85
⊖	2 mil	Sanofi SA	0.84
⊖	23 mil	AIA Group Ltd	0.83
	10 mil	GlaxoSmithKline PLC	0.74
⊖	39 mil	HSBC Holdings PLC	0.69

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**36.1**	**0.92**
Basic Materials	7.1	0.90
Consumer Cyclical	9.7	0.89
Financial Services	16.2	0.92
Real Estate	3.1	1.12
Sensitive	**33.2**	**0.91**
Communication Services	6.4	0.74
Energy	3.7	0.77
Industrials	14.3	1.31
Technology	8.7	0.73
Defensive	**30.8**	**1.26**
Consumer Defensive	11.9	1.16
Healthcare	14.9	1.39
Utilities	4.0	1.14

Operations

Family:	Fidelity Investments	Base Currency:	USD	Purchase Constraints:	A
Manager:	Multiple	Ticker:	FSPSX	Incept:	09-08-2011
Tenure:	11.6 Years	ISIN:	US3159117270	Type:	MF
Objective:	Foreign Stock	Minimum Initial Purchase:	$0	Total Assets:	$25,879.00 mil

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Standardized and Tax Adjusted Returns Disclosure Statement

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end please visit http://advisor.morningstar.com/familyinfo.asp.

Standardized Returns assume reinvestment of dividends and capital gains. They depict performance without adjusting for the effects of taxation, but are adjusted to reflect sales charges and ongoing fund expenses.

If adjusted for taxation, the performance quoted would be significantly reduced. For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges. The maximum redemption fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase.

After-tax returns are calculated using the highest individual federal marginal income tax rates, and do not reflect the impact of state and local taxes. Actual after-tax returns depend on the investor's tax situation and may differ from those shown. The after-tax returns shown are not relevant to investors who hold their fund shares through tax-deferred arrangements such as 401(k) plans or an IRA. After-tax returns exclude the effects of either the alternative minimum tax or phase-out of certain tax credits. Any taxes due are as of the time the distributions are made, and the taxable amount and tax character of each distribution are as specified by the fund on the dividend declaration date. Due to foreign tax credits or realized capital losses, after-tax returns may be greater than before-tax returns. After-tax returns for exchange-traded funds are based on net asset value.

Money Market Fund Disclosures

If money market fund(s) are included in the Standardized Returns table below, each money market fund's name will be followed by a superscripted letter that links it to the applicable disclosure below:

Institutional Money Market Funds (designated by an "S"):

You could lose money by investing in the fund. Because the share price of the fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "L") and

Retail Money Market Funds (designated by an "L"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen not to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "N"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Annualized returns 06-30-2020

Standardized Returns (%)	7-day Yield Subsidized as of date	7-day Yield Unsubsidized as of date	YTD	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
Fidelity® International Index	—	—	-4.69	2.22	—	5.49	09-08-2011	NA	NA	0.04	0.04	NA
BBgBarc US Agg Bond TR USD			**8.74**	**4.30**	**3.82**	**—**	**01-03-1980**					
MSCI ACWI Ex USA NR USD			**-4.80**	**2.26**	**4.97**	**—**	**01-01-2001**					
MSCI EAFE NR USD			**-5.13**	**2.05**	**5.73**	**—**	**03-31-1986**					
S&P 500 TR USD			**7.51**	**10.73**	**13.99**	**—**	**09-11-1989**					
USTREAS T-Bill Auction Ave 3 Mon			**1.26**	**1.17**	**0.62**	**—**	**02-28-1941**					

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distribution is made. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, at the licensed fund, account information provided to your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplementary sales literature. If applicable it must be preceded or accompanied by a prospectus, or summary and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Annualized returns 06-30-2020

Return after Tax (%)	On Distribution					On Distribution and Sales of Shares			
	1Yr	5Yr	10Yr	Since Inception	Inception Date	1Yr	5Yr	10Yr	Since Inception
Fidelity® International Index	-5.37	1.41	—	4.50	09-08-2011	-2.24	1.57	—	4.04

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Mutual Fund Detail Report Disclosure Statement

The Mutual Fund Detail Report is supplemental sales literature, and therefore must be preceded or accompanied by the mutual fund's current prospectus or an equivalent statement. Please read this information carefully. In all cases, this disclosure statement should accompany the Mutual Fund Detail Report. Morningstar is not itself a FINRA-member firm.

All data presented is based on the most recent information available to Morningstar as of the release date and may or may not be an accurate reflection of current data for securities included in the fund's portfolio. There is no assurance that the data will remain the same.

Unless otherwise specified, the definition of "funds" used throughout this Disclosure Statement includes closed-end funds, exchange-traded funds, grantor trusts, index mutual funds, open-ended mutual funds, and unit investment trusts. It does not include exchange-traded notes or exchange-traded commodities.

Prior to 2016, Morningstar's methodology evaluated open-end mutual funds and exchange-traded funds as separate groups. Each group contained a subset of the current investments included in our current comparative analysis. In this report, historical data presented on a calendar-year basis and trailing periods ending at the most-recent month-end reflect the updated methodology.

Risk measures (such as alpha, beta, r-squared, standard deviation, mean, or Sharpe ratio) are calculated for securities or portfolios that have at least a three-year history.

Most Morningstar rankings do not include any adjustment for one-time sales charges, or loads. Morningstar does publish load-adjusted returns, and ranks such returns within a Morningstar Category in certain reports. The total returns for ETFs and fund share classes without one-time loads are equal to Morningstar's calculation of load-adjusted returns. Share classes that are subject to one-time loads relating to advice or sales commissions have their returns adjusted as part of the load-adjusted return calculation to reflect those loads.

Comparison of Fund Types

Funds, including closed-end funds, exchange-traded funds (ETFs), money market funds, open-end funds, and unit investment trusts (UITs), have many similarities, but also many important differences. In general, publically-offered funds are investment companies registered with the Securities and Exchange Commission under the Investment Company Act of 1940, as amended. Funds pool money from their investors and manage it according to an investment strategy or objective, which can vary greatly from fund to fund. Funds have the ability to offer diversification and professional management, but also involve risk, including the loss of principal.

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. A closed-end mutual fund's expense ratio is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Closed-end funds may also have 12b-1 fees. Income distributions and capital gains of the closed-end fund are subject to income tax, if held in a taxable account.

An ETF is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, an ETF can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. ETFs are not actively managed, so their value may be affected by a general decline in the U.S. market segments relating to their underlying indexes. Similarly, an imperfect match between an ETF's holdings and those of its underlying index may cause its performance to vary from that of its underlying index. The expense ratio of an ETF is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. ETFs do not have 12b-1 fees or sales loads. Capital gains from funds held in a taxable account are subject to income tax. In many, but not all cases, ETFs are generally considered to be more tax-efficient when compared to similarly invested mutual funds.

Holding company depository receipts (HOLDRs) are similar to ETFs, but they focus on narrow industry groups. HOLDRs initially own 20 stocks, which are unmanaged, and can become more concentrated due to mergers, or the disparate performance of their holdings. HOLDRs can only be bought in 100-share increments. Investors may exchange shares of a HOLDR for its underlying stocks at any time.

A money-market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and are not guaranteed by a bank or other financial institution.

An open-end fund is an investment company that issues shares on a continuous basis. Shares can be purchased from the open-end mutual fund itself, or through an intermediary, but cannot be traded on a secondary market, such as the New York Stock Exchange. Investors pay the open-end mutual fund's current net asset value plus any initial sales loads. Net asset value is calculated daily, at the close of business. Open-end mutual fund shares can be redeemed, or sold back to the fund or intermediary, at their current net asset value minus any deferred sales loads or redemption fees. The expense ratio for an open-end mutual fund is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Open-end funds may also have 12b-1 fees. Income distributions and capital gains of the open-end fund are subject to income tax, if held in a taxable account.

A unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units. A one-time initial sales charge is deducted from an investment made into the trust. UIT investors may also pay creation and development fees, organization costs, and/or trustee and operation expenses. UIT units may be redeemed by the sponsor at their net

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

asset value minus a deferred sales charge, and sold to other investors. UITs have set termination dates, at which point the underlying securities are sold and the sales proceeds are paid to the investor. Typically, a UIT investment is rolled over into successive trusts as part of a long-term strategy. A rollover fee may be charged for the exercise of rollover purchases. There are tax consequences associated with rolling over an investment from one trust to the next.

Performance

The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares, when sold, may be worth more or less than the original investment. Fund portfolio statistics change over time. Funds are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution.

Morningstar calculates after-tax returns using the highest applicable federal marginal income tax rate plus the investment income tax and Medicare surcharge. As of 2018, this rate is 37% plus 3.8% investment income plus 0.9% Medicare surcharge, or 41.7%. This rate changes periodically in accordance with changes in federal law.

Pre-Inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the inception of the share class of the fund shown in this report ("Report Share Class"). If pre-inception returns are shown, a performance stream consisting of the Report Share Class and older share class(es) is created. Morningstar adjusts pre-inception returns downward to reflect higher expenses in the Report Share Class, we do not hypothetically adjust returns upwards for lower expenses. For more information regarding calculation of pre-inception returns please see the Morningstar Extended Performance Methodology.

When pre-inception data is presented in the report, the header at the top of the report will indicate this. In addition, the pre-inception data included in the report will appear in italics.

While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of newer share classes of a fund, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. For example, the fee structures of a retail share class will vary from that of an institutional share class, as retail shares tend to have higher operating expenses and sales charges. These adjusted historical returns are not actual returns. The underlying investments in the share classes used to calculate the pre-performance string will likely vary from the underlying investments held in the fund after inception. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the fund itself.

12b1 Expense %

A 12b-1 fee is a fee used to pay for a mutual fund's distribution costs. It is often used as a commission to brokers for selling the fund. The amount of the fee is taken from a fund's returns.

Alpha

Alpha is a measure of the difference between a security or portfolio's actual returns and its expected performance, given its level of risk (as measured by beta.) Alpha is often seen as a measure of the value added or subtracted by a portfolio manager.

Asset Allocation

Asset Allocation reflects asset class weightings of the portfolio. The "Other" category includes security types that are not neatly classified in the other asset classes, such as convertible bonds and preferred stocks, or cannot be classified by Morningstar as a result of missing data. Morningstar may display asset allocation data in several ways, including tables or pie charts. In addition, Morningstar may compare the asset class breakdown of the fund against its three-year average, category average, and/or index proxy.

Asset allocations shown in tables may include a breakdown among the long, short, and net (long positions net of short) positions. These statistics summarize what the fund's managers are buying and how they are positioning the fund's portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the fund's exposure and risk. Long positions involve buying the security outright and selling it later, with the hope the security's price rises over time. Short positions are taken with the hope of benefitting from anticipated price declines. The investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience a loss buying it at a higher price than the sale price.

Most fund portfolios hold fairly conventional securities, such as long positions in equities and bonds. Morningstar may generate a colored pie chart for these portfolios. Other portfolios use other investment strategies or securities, such as short positions or derivatives, in an attempt to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while other have unique return and risk characteristics. Portfolios that incorporate investment strategies resulting in short positions or portfolio with relatively exotic derivative positions often report data to Morningstar that does not meet the parameters of the calculation underlying a pie chart's generation. Because of the nature of how these securities are reported to Morningstar, we may not always get complete portfolio information to report asset allocation. Morningstar, at its discretion, may determine if unidentified characteristics of fund holdings are material. Asset allocation and other breakdowns may be rescaled accordingly so that percentages total to 100 percent. (Morningstar used discretion to determine if unidentified characteristics of fund holdings are material, pie charts and other breakdowns may rescale identified characteristics to 100% for more intuitive presentation.)

Note that all other portfolio statistics presented in this report are based on the long (or long rescaled) holdings of the fund only.

Average Effective Duration

Duration is a time measure of a bond's interest-rate sensitivity. Average effective duration is a weighted average of the duration of the fixed-income securities within a portfolio.

Average Effective Maturity

Average Effective Maturity is a weighted average of the maturities of all bonds in a portfolio.

Average Weighted Coupon

A coupon is the fixed annual percentage paid out on a bond. The average weighted coupon is the asset-weighted coupon of each bond in the portfolio.

Average Weighted Price

Average Weighted Price is the asset-weighted price of bonds held in a portfolio, expressed as a percentage of par (face) value. This number reveals if the portfolio favors bonds selling at prices above or below par value (premium or discount securities respectively.)

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Best Fit Index
Alpha, beta, and R-squared statistics are presented for a broad market index and a "best fit" index. The Best Fit Index identified in this report was determined by Morningstar by calculating R-squared for the fund against approximately 100 indexes tracked by Morningstar. The index representing the highest R-squared is identified as the best fit index. The best fit index may not be the fund's benchmark, nor does it necessarily contain the types of securities that may be held by the fund or portfolio.

Beta
Beta is a measure of a security or portfolio's sensitivity to market movements (proxied using an index.) A beta of greater than 1 indicates more volatility than the market, and a beta of less than 1 indicates less volatility than the market.

Credit Quality Breakdown
Credit Quality breakdowns are shown for corporate-bond holdings in the fund's portfolio and depict the quality of bonds in the underlying portfolio. It shows the percentage of fixed-income securities that fall within each credit-quality rating as assigned by a Nationally Recognized Statistical Rating Organization (NRSRO). Bonds not rated by an NRSRO are included in the Other/Not-Classified category.

Deferred Load %
The back-end sales charge or deferred load is imposed when an investor redeems shares of a fund. The percentage of the load charged generally declines the longer the fund's shares are held by the investor. This charge, coupled with 12b-1 fees, commonly serves as an alternative to a traditional front-end load.

Expense Ratio %
The expense ratio is the annual fee that all funds charge their shareholders. It expresses the percentage of assets deducted each fiscal year for fund expenses, including 12b-1 fees, management fees, administrative fees, operating costs, and all other asset-based costs incurred by the fund. Portfolio transaction fees, or brokerage costs, as well as front-end or deferred sales charges are not included in the expense ratio. The expense ratio, which is deducted from the fund's average net assets, is accrued on a daily basis. The gross expense ratio, in contrast to the net expense ratio, does not reflect any fee waivers in effect during the time period.

Front-end Load %
The initial sales charge or front-end load is a deduction made from each investment in the fund and is generally based on the amount of the investment.

Geometric Average Market Capitalization
Geometric Average Market Capitalization is a measure of the size of the companies in which a portfolio invests.

Growth of 10,000
For funds, this graph compares the growth of an investment of 10,000 (in the base currency of the fund) with that of an index and/or with that of the average for all funds in its Morningstar Category. The total returns are not adjusted to reflect sales charges or the effects of taxation but are adjusted to reflect actual ongoing fund expenses, and they assume reinvestment of dividends and capital gains. If adjusted, effects of sales charges and taxation would reduce the performance quoted. If pre-inception data is included in the analysis, it will be graphed.

The index in the Growth of 10,000 graph is an unmanaged portfolio of specified securities and cannot be invested in directly. The index does not reflect any initial or ongoing expenses. A fund's portfolio may differ significantly from the securities in the index. The index is chosen by Morningstar.

Management Fees %
The management fee includes the management and administrative fees listed in the Management Fees section of a fund's prospectus. Typically, these fees represent the costs shareholders paid for management and administrative services over the fund's prior fiscal year.

Maximum Redemption Fee %
The Maximum Redemption Fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase (for example, 30, 180, or 365 days).

Mean
Mean is the annualized geometric return for the period shown.

Morningstar Analyst Rating™
Effective October 31, 2019, Morningstar updated its Morningstar Analyst Rating™ methodology. For any Morningstar Analyst Rating published on or prior to October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark, or in the case of exchange-traded funds and index mutual funds, a relevant peer group, over the long term on a risk-adjusted basis. They consider quantitative and qualitative factors in their research, and the weight of each pillar may vary. The Analyst Rating scale is Gold, Silver, Bronze, Neutral, and Negative. A Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's conviction in a fund's prospects for outperformance. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at east every 14 months. For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to global.morningstar.com/managerdisclosures/.

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

For any Morningstar Analyst Rating published after October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five-pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark over the long term on a risk adjusted basis. They consider quantitative and qualitative factors in their research. For actively managed strategies, people and process each receive a 45% weighting in their analysis, while parent receives a 10% weighting. For passive strategies, process receives an 80% weighting, while people and parent each receive a

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

10% weighting. For both active and passive strategies, performance has no explicit weight as it is incorporated into the analysis of people and process; price at the share-class level (where applicable) is directly subtracted from an expected gross alpha estimate derived from the analysis of the other pillars. The impact of the weighted pillar scores for people, process and parent on the final Analyst Rating is further modified by a measure of the dispersion of historical alphas among relevant peers. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, the modification by alpha dispersion is not used.

For active funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that an active fund will be able to deliver positive alpha net of fees relative to the standard benchmark index assigned to the Morningstar category. The level of the rating relates to the level of expected positive net alpha relative to Morningstar category peers for active funds. For passive funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will be able to deliver a higher alpha net of fees than the lesser of the relevant Morningstar category median or 0. The level of the rating relates to the level of expected net alpha relative to Morningstar category peers for passive funds. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will deliver a weighted pillar score above a predetermined threshold within its peer group. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at least every 14 months.

For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

Morningstar Quantitative Rating™

Morningstar's quantitative fund ratings consist of: (i) Morningstar Quantitative Rating (overall score), (ii) Quantitative Parent pillar, (iii) Quantitative People pillar, and (iv) Quantitative Process pillar (collectively the "Quantitative Fund Ratings".).The Quantitative Fund Ratings are calculated monthly and derived from the analyst-driven ratings of a fund's peers as determined by statistical algorithms. Morningstar, Inc. calculates Quantitative Fund Ratings for funds when an analyst rating does not exist as part of its qualitative coverage.

- ***Morningstar Quantitative Rating:*** Intended to be comparable to Morningstar's Analyst Ratings for open-end funds and ETFs, which is the summary expression of Morningstar's forward-looking analysis of a fund. The Morningstar Analyst Rating is based on the analyst's conviction in the fund's ability to outperform its peer group and/or relevant benchmark on a risk-adjusted basis over a full market cycle of at least 5 years. Ratings are assigned on a five-tier scale with three positive ratings of Gold, Silver, and Bronze, a Neutral rating, and a Negative rating. Morningstar calculates the Morningstar Quantitative Rating using a statistical model derived from the Morningstar Analyst Rating our fund analysts assign to open-end funds and ETFs. Please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx for information about Morningstar Analyst Rating Morningstar's fund analysts assign to funds.

- ***Quantitative Parent pillar:*** Intended to be comparable to Morningstar's Parent pillar scores, which provides Morningstar's analyst opinion on the stewardship quality of a firm. Morningstar calculates the Quantitative Parent pillar using an algorithm designed to predict the Parent Pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative People pillar:*** Morningstar's People pillar scores, which provides Morningstar's analyst opinion on the fund manager's talent, tenure, and resources. Morningstar calculates the Quantitative People pillar using an algorithm designed to predict the People pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative Process Pillar:*** Intended to be comparable to Morningstar's Process pillar scores, which provides Morningstar's analyst opinion on the fund's strategy and whether the management has a competitive advantage enabling it to execute the process and consistently over time. Morningstar calculates the Quantitative Process pillar using an algorithm designed to predict the Process pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), and Low (1).

Morningstar Quantitative Ratings **have not been made available** to the issuer of the security prior to publication.

Risk Warning

The quantitative fund ratings are not statements of fact. Morningstar does not guarantee the completeness or accuracy of the assumptions or models used in determining the quantitative fund ratings. In addition, there is the risk that the return target will not be met due to such things as unforeseen changes in changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, and tax rate. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions. A change in the fundamental factors underlying the quantitative fund ratings can mean that the recommendation is subsequently no longer accurate.

For more information about Morningstar's quantitative methodology, please visit https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

Morningstar Category

Morningstar Category is assigned by placing funds into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a fund's prospectus may not be sufficiently detailed for our proprietary classification methodology. Funds are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the fund is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

Morningstar Rank

Morningstar Rank is the total return percentile rank within each Morningstar Category. The highest (or most favorable) percentile rank is zero and the lowest (or least favorable) percentile rank is 100. Historical percentile ranks are based on a snapshot of a fund at the time of calculation.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Morningstar Rating™

The Morningstar Rating™for funds, or "star rating", is calculated for funds and separate accounts with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The Morningstar Rating does not include any adjustment for sales loads. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. For more information about the Morningstar Rating for funds, including its methodology, please go to global.morningstar.com/managerdisclosures

The Morningstar Return rates a fund's performance relative to other managed products in its Morningstar Category. It is an assessment of a product's excess return over a risk-free rate (the return of the 90-day Treasury Bill) in comparison with the products in its Morningstar category. In each Morningstar category, the top 10% of products earn a High Morningstar Return (High), the next 22.5% Above Average (+Avg), the middle 35% Average (Avg), the next 22.5% Below Average (-Ave), and the bottom 10% Low (Low). Morningstar Return is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Risk

Morningstar Risk evaluates a fund's downside volatility relative to that of other products in its Morningstar Category. It is an assessment of the variations in monthly returns, with an emphasis on downside variations, in comparison with the products in its Morningstar category. In each Morningstar category, the 10% of products with the lowest measured risk are described as Low Risk (Low), the next 22.5% Below Average (-Avg), the middle 35% Average (Avg), the next 22.5% Above Average (+Avg), and the top 10% High (High). Morningstar Risk is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Style Box™

The Morningstar Style Box™ reveals a fund's investment strategy as of the date noted on this report.

For equity funds, the vertical axis shows the market capitalization of the long stocks owned, and the horizontal axis shows the investment style (value, blend, or growth.) A darkened square in the style box indicates the weighted average style of the portfolio.

For fixed-income funds, the vertical axis shows the credit quality of the long bonds owned and the horizontal axis shows interest-rate sensitivity as measured by a bond's effective duration. Morningstar seeks credit rating information from fund companies on a periodic basis (for example, quarterly). In compiling credit rating information, Morningstar accepts credit ratings reported by fund companies that have been issued by all Nationally Recognized Statistical Rating Organizations. For a list of all NRSROs, please visit http://www.sec.gov/divisions/marketreg/ ratingagency.htm. Additionally, Morningstar accepts foreign credit ratings from widely recognized or registered rating agencies. If two rating organizations/ agencies have rated a security, fund companies are to report the lower rating; if three or more organizations/agencies have rated a security, fund companies are to report the median rating; and in cases where there are more than two organization/agency ratings and a median rating does not exist, fund companies are to use the lower of the two middle ratings.

Please Note: Morningstar, Inc. is not an NRSRO nor does it issue a credit rating on the fund. NRSRO or rating agency ratings can change from time to time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low," "medium," or "high" based on their average credit quality. Funds with a "low" credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; "medium" are those less than "AA-", but greater or equal to "BBB-"; and "high" are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index, which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal-bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases, static breakpoints are used. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-U.S. taxable and non-U.S. domiciled fixed-income funds, static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: more than 3.5 years but less than or equal to 6 years; (iii) Extensive: more than 6 years.

Interest-rate sensitivity for non-U.S. domiciled funds (excluding funds in convertible categories) may be measured with modified duration when effective duration is not available.

P/B Ratio TTM

The Price/Book Ratio (or P/B Ratio) for a fund is the weighted average of the P/B Ratio of the stocks in its portfolio. Book value is the total assets of a company, less total liabilities. The P/B ratio of a company is calculated by dividing the market price of its outstanding stock by the company's book value, and then adjusting for the number of shares outstanding. Stocks with negative book values are excluded from this calculation. It shows approximately how much an investor is paying for a company's assets based on historical valuations.

P/C Ratio TTM

The Price/Cash Flow Ratio (or P/C Ratio) for a fund is the weighted average of the P/C Ratio of the stocks in its portfolio. The P/C Ratio of a stock represents the amount an investor is willing to pay for a dollar generated from a company's operations. It shows the ability of a company to generate cash and acts as a gauge of liquidity and solvency.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

P/E Ratio TTM
The Price/Earnings Ratio (or P/E Ratio) for a fund is the weighted average of the P/E Ratios of the stocks in its portfolio. The P/E Ratio of a stock is the stock's current price divided by the company's trailing 12-month earnings per share. A high P/E Ratio usually indicates the market will pay more to obtain the company's earnings because it believes in the company's abilities to increase their earnings. A low P/E Ratio indicates the market has less confidence that the company's earnings will increase, however value investors may believe such stocks have an overlooked or undervalued potential for appreciation.

Percentile Rank in Category
Percentile Rank is a standardized way of ranking items within a peer group, in this case, funds within the same Morningstar Category. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable for returns (high returns), while higher percentile ranks are generally more favorable for risk measures (low risk).

Performance Quartile
Performance Quartile reflects a fund's Morningstar Rank.

Potential Capital Gains Exposure
Potential Capital Gains Exposure is an estimate of the percent of a fund's assets that represent gains. It measures how much the fund's assets have appreciated, and it can be an indicator of possible future capital gains distributions. A positive potential capital gains exposure value means that the fund's holdings have generally increased in value while a negative value means that the fund has reported losses on its book.

Quarterly Returns
Quarterly Return is calculated applying the same methodology as Total Return except it represents return through each quarter-end.

R-Squared
R-squared is the percentage of a security or portfolio's return movements that are explained by movements in its benchmark index, showing the degree of correlation between the security or portfolio and the benchmark. This figure is helpful in assessing how likely it is that beta and alpha are statistically significant. A value of 1 indicates perfect correlation between the security or portfolio and its benchmark. The lower the R-squared value, the lower the correlation.

Regional Exposure
The regional exposure is a display of the portfolio's assets invested in the regions shown on the report.

Sector Weightings
Super Sectors represent Morningstar's broadest classification of equity sectors by assigning the 11 equity sectors into three classifications. The Cyclical Super Sector includes industries significantly impacted by economic shifts, and the stocks included in these sectors generally have betas greater than 1. The Defensive Super Sector generally includes industries that are relatively immune to economic cycles, and the stocks in these industries generally have betas less than 1. The Sensitive Super Sector includes industries that ebb and flow with the overall economy, but not severely so. Stocks in the Sensitive Super Sector generally have betas that are close to 1.

Share Change
Shares Change represents the number of shares of a stock bought or sold by a fund since the previously reported portfolio of the fund.

Sharpe Ratio
Sharpe Ratio uses standard deviation and excess return (a measure of a security or portfolio's return in excess of the U.S. Treasury three-month Treasury Bill) to determine the reward per unit of risk.

Standard Deviation
Standard deviation is a statistical measure of the volatility of the security or portfolio's returns. The larger the standard deviation, the greater the volatility of return.

Standardized Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experience if the security was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Total Return
Total Return, or "Non Load-Adjusted Return", reflects performance without adjusting for sales charges (if applicable) or the effects of taxation, but it is adjusted to reflect all actual ongoing security expenses and assumes reinvestment of dividends and capital gains. It is the return an investor would have experienced if the fund was held throughout the period. If adjusted for sales charges and the effects of taxation, the performance quoted would be significantly reduced.

Total Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Trailing Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experienced if the fund was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Load-Adjusted Monthly Return is calculated applying the same methodology as Standardized Return, except that it represents return through month-end. As with Standardized Return, it reflects the impact of sales charges and ongoing fund expenses, but not taxation. If adjusted for the effects of taxation, the performance quoted would be significantly different.

Trailing Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Investment Risks

International/Emerging Market Equities: Investing in international securities involves special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Sector Strategies: Portfolios that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

to increased industry-specific risks.

Non-Diversified Strategies: Portfolios that invest a significant percentage of assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

Small Cap Equities: Portfolios that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

Mid Cap Equities: Portfolios that invest in companies with market capitalization below $10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

High-Yield Bonds: Portfolios that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

Tax-Free Municipal Bonds: The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

Bonds: Bonds are subject to interest rate risk. As the prevailing level of bond interest rates rise, the value of bonds already held in a portfolio declines. Portfolios that hold bonds are subject to declines and increases in value due to general changes in interest rates.

HOLDRs: The investor should note that these are narrow industry-focused products that, if the industry is hit by hard times, will lack diversification and possible loss of investment would be likely. These securities can trade at a discount to market price, ownership is of a fractional share interest, the underlying investments may not be representative of the particular industry, the HOLDR might be delisted from the AMEX if the number of underlying companies drops below nine, and the investor may experience trading halts.

Hedge Funds: The investor should note that hedge fund investing involves specialized risks that are dependent upon the type of strategies undertaken by the manager. This can include distressed or event-driven strategies, long/short strategies, using arbitrage (exploiting price inefficiencies), international investing, and use of leverage, options and/or derivatives. Although the goal of hedge fund managers may be to reduce volatility and produce positive absolute return under a variety of market conditions, hedge funds may involve a high degree of risk and are suitable only for investors of substantial financial means who could bear the entire loss of their investment.

Bank Loan/Senior Debt: Bank loans and senior loans are impacted by the risks associated with fixed income in general, including interest rate risk and default risk. They are often non-investment grade; therefore, the risk of default is high. These securities are also relatively illiquid. Managed products that invest in bank loans/senior debt are often highly leveraged, producing a high risk of return volatility.

Exchange Traded Notes (ETNs): ETNs are unsecured debt obligations. Any repayment of notes is subject to the issuer's ability to repay its obligations. ETNs do not typically pay interest.

Leveraged ETFs: Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their fund objectives on a daily basis (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e. 200%, 300%, -200%, or -300% or 2X, 3X, -2X, -3X). Compounding has the ability to affect the performance of the fund to be either greater or less than the index performance multiplied by the multiple stated within the funds objective over a stated time period.

Short Positions: When a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

Long-Short: Due to the strategies used by long-short funds, which may include but are not limited to leverage, short selling, short-term trading, and investing in derivatives, these funds may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

Liquidity Risk: Closed-end fund, ETF, and HOLDR trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

Market Price Risk: The market price of ETFs, HOLDRs, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

Market Risk: The market prices of ETFs and HOLDRs can fluctuate as a result of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

Target-Date Funds: Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximate date when investors expect to begin withdrawing their money. A target-date fund's investment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including at the fund's target date.

High double- and triple-digit returns: High double- and triple-digit returns were the result of extremely favorable market conditions, which may not continue to be the case. High returns for short time periods must not be a major factor when making investment decisions.

Benchmark Disclosure

BBgBarc US Agg Bond TR USD
This index is composed of the BarCap Government/Credit Index, the Mortgage-Backed Securities Index, and the Asset-Backed Securities Index. The returns we publish for the index are total returns, which includes the daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core US Aggregate Bond ETF.

MSCI ACWI Ex USA NR USD
The MSCI AC World ex USA is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets. The index consists of 48 developed and emerging market country indices. The returns we publish for the index are total returns, which include reinvestment of dividends. The constituents displayed for this index are

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

from the following proxy: iShares Core MSCI EAFE ETF.

MSCI EAFE NR USD
This Europe, Australasia, and Far East index is a market-capitalization-weighted index of 21 non-U.S., industrialized country indexes.

This disclosure applies to all MSCI indices: Certain information included herein is derived by Morningstar in part from MSCI's Index Constituents (the "Index Data"). However, MSCI has not reviewed any information contained herein and does not endorse or express any opinion such information or analysis. MSCI does not make any express or implied warranties, representations or guarantees concerning the Index Data or any information or data derived therefrom, and in no event will MSCI have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of this information.

S&P 500 TR USD
A market capitalization-weighted index composed of the 500 most widely held stocks whose assets and/or revenues are based in the US; it's often used as a proxy for the U.S. stock market. TR (Total Return) indexes include daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: SPDR® S&P 500 ETF Trust.

USTREAS T-Bill Auction Ave 3 Mon
Three-month T-bills are government-backed, short-term investments considered to be risk-free and as good as cash because the maturity is only three months. Morningstar collects yields on the T-bill on a weekly basis from the Wall Street Journal.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Fidelity Total Market Index Fund (FSKAX)

Firm Background*

Fidelity Institutional Asset Management Trust Company (FIAM) is the US-based investment management subsidiary of Fidelity Management & Research (FRM). FRM is a large, privately-held, multi-service financial services firm founded in 1946 by Edward C. Johnson. FMR is currently under the leadership of CEO Abigail Johnson. Approximately 49% of FMR is owned by Ms. Johnson and other members of the Johnson family. 51% is held by employees and former employees.

FIAM was established in 2015 through the combination of Pyramis Global Advisors and Fidelity Financial Advisor Solutions, which served, respectively, institutional and retail investment management clients. The firm manages roughly $175 billion across fixed income (38%), multi-asset (32%), and equity (28%), with cash and alternatives comprising the balance. Judy Marlinski is President of FIAM, She reports to Mike Dervin, Head of Fidelity Institutional at FMR.**Organization: Satisfactory***

FMR and, by extension, FIAM are highly complex and deeply intertwined organizations. Differences between functional business units and legal entities are often indistinct, but the high degree of involvement from the senior ranks of the FMR organization, particularly given the hands-on approach of FMR CEO Abigail Johnson, appear to manage this complexity effectively. FIAM is large, owing a portion of its success to the strong brand and distribution power of the parent company. The firm maintains a diversified client base and product line, as well as a strong investment culture. Senior leadership at FIAM has experienced some significant changes over the past two years, most notably the retirement of Charlie Morrison, FMR's President of Asset Management, in December of 2018 and the departure of Scott Cuoto, President of FIAM in mid-2017. The President of FIAM reports into the President of Asset Management at FRM Additionally, the firm has experienced high profile sexual harassment claims in recent years, leading to some turnover among senior investment professionals. This may indicate that the firm has non-investment-related cultural issues, which can still damage the likelihood of success for the investment teams. However, senior management responded forcefully, and we will continue to monitor the organization for cultural and legal issues.**Strategy****

Fidelity® Total Market Index Fund seeks to provide investment results that correspond to the total return of a broad range of United States stocks.

Normally investing at least 80% of assets in common stocks included in the Dow Jones U.S. Total Stock Market Index, which represents the performance of a broad range of U.S. stocks.

Summary***

It effectively replicates the composition of the total U.S. stock market, which has been hard to beat over the long term. The fund's low fee and broad diversification set it up for success. It earns a Morningstar Analyst Rating of Gold.

The fund tracks the Dow Jones U.S. Total Stock Market Index, which includes nearly all U.S. stocks and weights them by market capitalization. Market-cap weighting pulls the portfolio toward the largest stocks, so the fund lands in the large-blend Morningstar Category. This broad market-cap-weighted index accurately reflects the composition of the U.S. large-cap market and harnesses the market's collective wisdom. Compared with funds that target specific segments of the market, this fund isn't prone to forced buying or selling that is the result of stocks entering or exiting a market segment. This should mitigate transaction costs and turnover, which is among the lowest in the large-blend category.

The market doesn't always get prices right. Over short periods, investors may overreact and either drive prices too high or low. Market-cap weighting will increase or decrease exposure to stocks accordingly. This can at times lead to stock and sector level concentration. That said, the fund's broad diversification and low-cost advantage far outweigh these minor disadvantages.

The fund is always fully invested, which should help it more fully capture the market's returns over the long term than most of its category peers but could expose it to greater losses during market downturns. Unlike many of its active peers, this portfolio excludes stocks listed outside the United States. This should help the fund's category-relative performance when U.S. stocks outperform foreign stocks but hurt when they lag.

The fund charges 0.02%, which is its greatest strength. It builds on this cost advantage with low turnover, which helps mitigate transaction costs.

Performance***

Over the trailing 15 years ended February 2020, the fund beat the category average by 151 basis points annualized, with slightly higher risk. Much of this outperformance can be attributed to the fund's cost advantage, lower-than-average cash drag, and more favorable stock exposure in the healthcare, financial services, and consumer defensive sectors compared with the category average.

The fund ranked in the top half over the trailing three and five years through February 2020, consistently outperforming the category average while exhibiting slightly higher volatility. The fund also tended to hold up as well as most of its peers during downturns since inception, despite its lower-than-average cash balance.

This portfolio is always fully invested, which helps its category-relative performance during bull markets but could hurt during bear markets. Most actively managed funds in the category keep larger cash balances on hand to meet redemptions.

The fund has effectively tracked its index. Over the trailing five-year periods through February 2020, the fund trailed the Dow Jones U.S. Total Stock Market Index by 2 basis points, the amount of its expense ratio.

Price***

It's critical to evaluate expenses, as they come directly out of returns. The share class on this report levies a fee that ranks in its Morningstar category's cheapest quintile. Based on our assessment of the fund's People, Process and Parent pillars in the context of these fees, we think this share class will be able to deliver positive alpha relative to the category benchmark index, explaining its Morningstar Analyst Rating of Gold.

Process: High***

The fund represents the entire investable U.S. equity market, effectively harnessing the market's collective wisdom and diversifying risk. It earns a High Process rating.

The fund tracks the Dow Jones U.S. Total Stock Market Index, which holds nearly every U.S. stock listed on a major U.S. exchange. This gives the fund lower turnover than index funds that track specific size segments of the market, as it is not subject to forced trade when holdings migrate up and down the market-cap ladder. By sampling among the smallest stocks in the index, the fund can avoid trading the least-liquid names, which keeps transaction costs down. However, this fund's large asset base allows it to replicate the index more completely than other total market funds. The fund holds about 3,450 out of 3,700 stocks in the index.

The portfolio managers reinvest dividends and use derivatives to equitize cash and keep pace with the benchmark. The fund has historically used securities lending to generate additional income to offset expenses.

The fund mirrors the composition of the large-cap market, allowing the market to dictate its stock and sector weightings. This allows the fund to harness the market's collective view about the relative value of each stock and keeps turnover low; it is among the lowest in the category.

The fund’s top 10 holdings account for about 20% of assets and the largest holding accounts for 4% of assets, which effectively diversifies firm-specific risk.

Although it has a smaller market-cap orientation than the large-blend category average, this fund is representative of this category. Currently, the fund is slightly underweight in financial services and overweight in technology compared with the category average.

Large companies tend to have greater competitive advantages compared with smaller companies, and this is evident here as close to 76% of the portfolio is invested in firms with wide or narrow moats. On average, the fund’s constituents generate 37% of their revenue overseas.

People: Average***

Since early 2002, a team of quantitative specialists from Geode Capital Management has managed this fund. The team is experienced, but its support infrastructure does not stand out, and the team has experienced some turnover. It earns an Average People rating.

The fund's multimanager approach mitigates the impact of departures. Four listed managers have been removed from the fund since September 2012, but most of these shuffled internally at Geode and did not leave the firm. Patrick Waddell, the longest-tenured member of the current six-person team, retired in 2019. Payal Gupta was hired in June 2019 to replace Waddell. Louis Bottari and Peter Matthew joined this team as assistant portfolio managers in 2009 and 2012, respectively. Since Waddell’s retirement, day-to-day management of the portfolio has been undertaken by Louis Bottari. Deane Gyllenhaal joined in April 2014 and previously served as a portfolio manager at Hartford Investment Management. The team also added Tom Brussard and Robert Regan in the past year. Brussard started in August 2016 and has been an assistant portfolio manager with Geode since 2015. Regan joined in December 2016 and previously served as a portfolio manager at State Street Global Advisors.

Manager compensation is tied to index-tracking performance, which helps align their interest with investors’.

* Source: BNY Mellon Manager Research Group, as of July 2019
** Source: Fidelity (FMR, LLC), as of 6/30/2020
*** Source: Morningstar, Inc., as of 3/17/2020

Release date 07-31-2020 | Note: Portions of the analysis are based on pre-inception returns. Please read disclosure for more information. Page 1 of 11

Fidelity® Total Market Index (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Gold 03-17-2020	★★★ 1,226 US Fund Large Blend	S&P 500 TR USD	Russell 1000 TR USD	US Fund Large Blend

Performance 07-31-2020

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2018	-0.60	3.88	7.10	-14.35	-5.28
2019	14.04	4.08	1.15	9.05	30.92
2020	-20.57	22.09	—	—	1.94

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	10.81	11.32	10.85	—	14.06
Std 06-30-2020	5.42	—	9.99	—	13.49
Total Return	10.81	11.32	10.85	13.54	14.06
+/- Std Index	-1.15	-0.69	-0.64	-0.30	—
+/- Cat Index	-1.22	-0.70	-0.47	-0.31	—
% Rank Cat	37	35	30	20	
No. in Cat	1380	1226	1053	809	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-835-5092 or visit www.institional.fidelity.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.02
12b1 Expense %	NA
Net Expense Ratio %	**0.02**
Gross Expense Ratio %	**0.02**

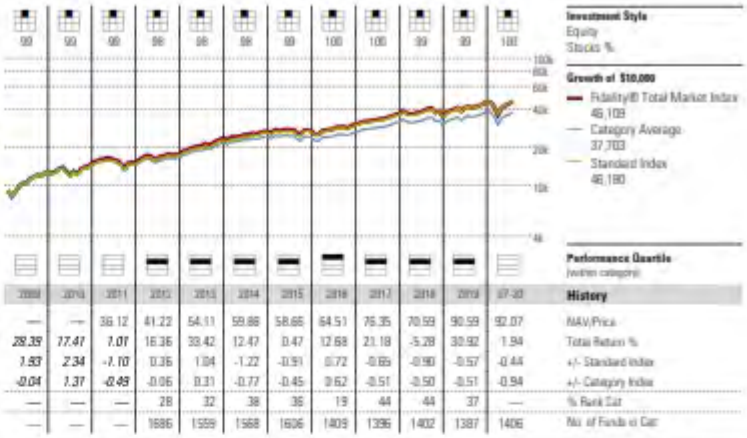
Risk and Return Profile

	3 Yr 1226 funds	5 Yr 1053 funds	10 Yr 809 funds
Morningstar Rating™	3★	3★	4★
Morningstar Risk	+Avg	+Avg	Avg
Morningstar Return	Avg	+Avg	+Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	17.93	15.53	13.94
Mean	11.32	10.85	13.54
Sharpe Ratio	0.60	0.67	0.94

MPT Statistics	Standard Index	Best Fit Index Russell 3000 TR USD
Alpha	-0.98	-0.09
Beta	1.04	1.00
R-Squared	99.60	100.00

12-Month Yield	—
Potential Cap Gains Exp	24.71%



Investment Style
Equity
Stocks %

Growth of $10,000
— Fidelity® Total Market Index 46,109
— Category Average 37,703
— Standard Index 46,180

Performance Quartile (within category)

Portfolio Analysis 06-30-2020

Asset Allocation %	Net %	Long %	Short %
Cash	0.00	0.00	0.00
US Stocks	98.86	98.86	0.00
Non-US Stocks	1.14	1.14	0.00
Bonds	0.00	0.00	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style

Value	Blend	Growth	
	■		Large
			Mid
			Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	22.0	0.88	0.98
P/C Ratio TTM	13.4	0.92	0.91
P/B Ratio TTM	3.1	0.89	0.87
Geo Avg Mkt Cap $mil	82609	0.55	0.42

Fixed-Income Style

Ltd	Mod	Ext	
			High
			Mid
			Low

Avg Eff Maturity	—
Avg Eff Duration	—
Avg Wtd Coupon	—
Avg Wtd Price	—

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	98.9	1.00
Greater Europe	0.9	0.91
Greater Asia	0.2	6.47

Share Chg since 05-2020	Share Amount	Holdings: 2,359 Total Stocks , 0 Total Fixed-Income, 11% Turnover Ratio	Net Assets %
⊖	12 mil	Microsoft Corp	5.68
⊖	6 mil	Apple Inc	4.87
⊕	638,404	Amazon.com Inc	3.79
⊖	4 mil	Facebook Inc A	1.79
⊖	453,751	Alphabet Inc A	1.39
⊖	446,095	Alphabet Inc Class C	1.36
⊖	4 mil	Johnson & Johnson	1.21
⊖	3 mil	Berkshire Hathaway Inc Class B	1.14
⊖	3 mil	Visa Inc Class A	1.07
⊖	4 mil	Procter & Gamble Co	0.97
⊖	5 mil	JPMorgan Chase & Co	0.94
⊖	1 mil	UnitedHealth Group Inc	0.92
⊖	2 mil	The Home Depot Inc	0.88
⊖	1 mil	Mastercard Inc A	0.86
⊖	6 mil	Intel Corp	0.83

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**38.4**	**1.05**
Basic Materials	2.3	1.05
Consumer Cyclical	11.0	1.01
Financial Services	13.2	1.01
Real Estate	3.9	1.38
Sensitive	**45.0**	**0.98**
Communication Services	9.9	0.91
Energy	2.7	1.05
Industrials	8.9	1.07
Technology	23.5	0.98
Defensive	**24.6**	**0.97**
Consumer Defensive	6.7	0.90
Healthcare	15.0	1.02
Utilities	2.9	0.83

Operations

Family:	Fidelity Investments	Base Currency:	USD	Purchase Constraints:	A
Manager:	Multiple	Ticker:	FSKAX	Incept:	09-08-2011
Tenure:	11.6 Years	ISIN:	US3159116934	Type:	MF
Objective:	Growth and Income	Minimum Initial Purchase:	$0	Total Assets:	$48,419.43 mil

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Standardized and Tax Adjusted Returns Disclosure Statement

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end please visit http://advisor.morningstar.com/familyinfo.asp.

Standardized Returns assume reinvestment of dividends and capital gains. They depict performance without adjusting for the effects of taxation, but are adjusted to reflect sales charges and ongoing fund expenses.

If adjusted for taxation, the performance quoted would be significantly reduced. For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges. The maximum redemption fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase.

After-tax returns are calculated using the highest individual federal marginal income tax rates, and do not reflect the impact of state and local taxes. Actual after-tax returns depend on the investor's tax situation and may differ from those shown. The after-tax returns shown are not relevant to investors who hold their fund shares through tax-deferred arrangements such as 401(k) plans or an IRA. After-tax returns exclude the effects of either the alternative minimum tax or phase-out of certain tax credits. Any taxes due are as of the time the distributions are made, and the taxable amount and tax character of each distribution are as specified by the fund on the dividend declaration date. Due to foreign tax credits or realized capital losses, after-tax returns may be greater than before-tax returns. After-tax returns for exchange-traded funds are based on net asset value.

Money Market Fund Disclosures

If money market fund(s) are included in the Standardized Returns table below, each money market fund's name will be followed by a superscripted letter that links it to the applicable disclosure below:

Institutional Money Market Funds (designated by an "S"):

You could lose money by investing in the fund. Because the share price of the fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "L") and

Retail Money Market Funds (designated by an "L"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen not to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "N"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Annualized returns 06-30-2020

Standardized Returns (%)	7-day Yield Subsidized as of date	7-day Yield Unsubsidized as of date	YTD	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
Fidelity® Total Market Index	—	—	6.42	9.99	—	13.48	09-08-2011	NA	NA	0.02	0.02	NA
BBgBarc US Agg Bond TR USD			**8.74**	**4.30**	**3.82**	**—**	**01-03-1990**					
MSCI EAFE NR USD			**-5.13**	**2.05**	**5.73**	**—**	**03-31-1986**					
Russell 1000 TR USD			**7.48**	**10.47**	**13.97**	**—**	**12-31-1978**					
Russell 3000 TR USD			**6.53**	**10.03**	**13.72**	**—**	**12-31-1978**					
S&P 500 TR USD			**7.51**	**10.73**	**13.99**	**—**	**09-11-1989**					

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, at the limited level, accurate information provided to you from financial professionals which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable, it must be preceded or accompanied by a prospectus, or summary and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Release date 07-31-2020 Page 3 of 11

Annualized returns 06-30-2020

Standardized Returns (%)	7-day Yield Subsidized *as of date*	7-day Yield Unsubsidized *as of date*	1Yr	5Yr	10Yr	Since Inception	Inception Date	**Max Front Load %**	**Max Back Load %**	**Net Exp Ratio %**	**Gross Exp Ratio %**	**Max Redemption %**
USTREAS T-Bill Auction Ave 3 Mon			**1.26**	**1.17**	**0.62**	—	**02-28-1941**					

Return after Tax (%)	On Distribution					On Distribution and Sales of Shares			
	1Yr	5Yr	10Yr	Since Inception	Inception Date	1Yr	5Yr	10Yr	Since Inception
Fidelity® Total Market Index	5.63	9.00	—	12.56	09-08-2011	3.80	7.44	—	10.71

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Mutual Fund Detail Report Disclosure Statement

The Mutual Fund Detail Report is supplemental sales literature, and therefore must be preceded or accompanied by the mutual fund's current prospectus or an equivalent statement. Please read this information carefully. In all cases, this disclosure statement should accompany the Mutual Fund Detail Report. Morningstar is not itself a FINRA-member firm.

All data presented is based on the most recent information available to Morningstar as of the release date and may or may not be an accurate reflection of current data for securities included in the fund's portfolio. There is no assurance that the data will remain the same.

Unless otherwise specified, the definition of "funds" used throughout this Disclosure Statement includes closed-end funds, exchange-traded funds, grantor trusts, index mutual funds, open-ended mutual funds, and unit investment trusts. It does not include exchange-traded notes or exchange-traded commodities.

Prior to 2016, Morningstar's methodology evaluated open-end mutual funds and exchange-traded funds as separate groups. Each group contained a subset of the current investments included in our current comparative analysis. In this report, historical data presented on a calendar-year basis and trailing periods ending at the most-recent month-end reflect the updated methodology.

Risk measures (such as alpha, beta, r-squared, standard deviation, mean, or Sharpe ratio) are calculated for securities or portfolios that have at least a three-year history.

Most Morningstar rankings do not include any adjustment for one-time sales charges, or loads. Morningstar does publish load-adjusted returns, and ranks such returns within a Morningstar Category in certain reports. The total returns for ETFs and fund share classes without one-time loads are equal to Morningstar's calculation of load-adjusted returns. Share classes that are subject to one-time loads relating to advice or sales commissions have their returns adjusted as part of the load-adjusted return calculation to reflect those loads.

Comparison of Fund Types

Funds, including closed-end funds, exchange-traded funds (ETFs), money market funds, open-end funds, and unit investment trusts (UITs), have many similarities, but also many important differences. In general, publically-offered funds are investment companies registered with the Securities and Exchange Commission under the Investment Company Act of 1940, as amended. Funds pool money from their investors and manage it according to an investment strategy or objective, which can vary greatly from fund to fund. Funds have the ability to offer diversification and professional management, but also involve risk, including the loss of principal.

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. A closed-end mutual fund's expense ratio is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Closed-end funds may also have 12b-1 fees. Income distributions and capital gains of the closed-end fund are subject to income tax, if held in a taxable account.

An ETF is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, an ETF can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. ETFs are not actively managed, so their value may be affected by a general decline in the U.S. market segments relating to their underlying indexes. Similarly, an imperfect match between an ETF's holdings and those of its underlying index may cause its performance to vary from that of its underlying index. The expense ratio of an ETF is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. ETFs do not have 12b-1 fees or sales loads. Capital gains from funds held in a taxable account are subject to income tax. In many, but not all cases, ETFs are generally considered to be more tax-efficient when compared to similarly invested mutual funds.

Holding company depository receipts (HOLDRs) are similar to ETFs, but they focus on narrow industry groups. HOLDRs initially own 20 stocks, which are unmanaged, and can become more concentrated due to mergers, or the disparate performance of their holdings. HOLDRs can only be bought in 100-share increments. Investors may exchange shares of a HOLDR for its underlying stocks at any time.

A money-market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and are not guaranteed by a bank or other financial institution.

An open-end fund is an investment company that issues shares on a continuous basis. Shares can be purchased from the open-end mutual fund itself, or through an intermediary, but cannot be traded on a secondary market, such as the New York Stock Exchange. Investors pay the open-end mutual fund's current net asset value plus any initial sales loads. Net asset value is calculated daily, at the close of business. Open-end mutual fund shares can be redeemed, or sold back to the fund or intermediary, at their current net asset value minus any deferred sales loads or redemption fees. The expense ratio for an open-end mutual fund is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Open-end funds may also have 12b-1 fees. Income distributions and capital gains of the open-end fund are subject to income tax, if held in a taxable account.

A unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units. A one-time initial sales charge is deducted from an investment made into the trust. UIT investors may also pay creation and development fees, organization costs, and/or trustee and operation expenses. UIT units may be redeemed by the sponsor at their net

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

asset value minus a deferred sales charge, and sold to other investors. UITs have set termination dates, at which point the underlying securities are sold and the sales proceeds are paid to the investor. Typically, a UIT investment is rolled over into successive trusts as part of a long-term strategy. A rollover fee may be charged for the exercise of rollover purchases. There are tax consequences associated with rolling over an investment from one trust to the next.

Performance

The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares, when sold, may be worth more or less than the original investment. Fund portfolio statistics change over time. Funds are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution.

Morningstar calculates after-tax returns using the highest applicable federal marginal income tax rate plus the investment income tax and Medicare surcharge. As of 2018, this rate is 37% plus 3.8% investment income plus 0.9% Medicare surcharge, or 41.7%. This rate changes periodically in accordance with changes in federal law.

Pre-Inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the inception of the share class of the fund shown in this report ("Report Share Class"). If pre-inception returns are shown, a performance stream consisting of the Report Share Class and older share class(es) is created. Morningstar adjusts pre-inception returns downward to reflect higher expenses in the Report Share Class, we do not hypothetically adjust returns upwards for lower expenses. For more information regarding calculation of pre-inception returns please see the Morningstar Extended Performance Methodology.

When pre-inception data is presented in the report, the header at the top of the report will indicate this. In addition, the pre-inception data included in the report will appear in italics.

While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of newer share classes of a fund, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. For example, the fee structures of a retail share class will vary from that of an institutional share class, as retail shares tend to have higher operating expenses and sales charges. These adjusted historical returns are not actual returns. The underlying investments in the share classes used to calculate the pre-performance string will likely vary from the underlying investments held in the fund after inception. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the fund itself.

12b1 Expense %

A 12b-1 fee is a fee used to pay for a mutual fund's distribution costs. It is often used as a commission to brokers for selling the fund. The amount of the fee is taken from a fund's returns.

Alpha

Alpha is a measure of the difference between a security or portfolio's actual returns and its expected performance, given its level of risk (as measured by beta.) Alpha is often seen as a measure of the value added or subtracted by a portfolio manager.

Asset Allocation

Asset Allocation reflects asset class weightings of the portfolio. The "Other" category includes security types that are not neatly classified in the other asset classes, such as convertible bonds and preferred stocks, or cannot be classified by Morningstar as a result of missing data. Morningstar may display asset allocation data in several ways, including tables or pie charts. In addition, Morningstar may compare the asset class breakdown of the fund against its three-year average, category average, and/or index proxy.

Asset allocations shown in tables may include a breakdown among the long, short, and net (long positions net of short) positions. These statistics summarize what the fund's managers are buying and how they are positioning the fund's portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the fund's exposure and risk. Long positions involve buying the security outright and selling it later, with the hope the security's price rises over time. Short positions are taken with the hope of benefitting from anticipated price declines. The investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience a loss buying it at a higher price than the sale price.

Most fund portfolios hold fairly conventional securities, such as long positions in equities and bonds. Morningstar may generate a colored pie chart for these portfolios. Other portfolios use other investment strategies or securities, such as short positions or derivatives, in an attempt to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while other have unique return and risk characteristics. Portfolios that incorporate investment strategies resulting in short positions or portfolio with relatively exotic derivative positions often report data to Morningstar that does not meet the parameters of the calculation underlying a pie chart's generation. Because of the nature of how these securities are reported to Morningstar, we may not always get complete portfolio information to report asset allocation. Morningstar, at its discretion, may determine if unidentified characteristics of fund holdings are material. Asset allocation and other breakdowns may be rescaled accordingly so that percentages total to 100 percent. (Morningstar used discretion to determine if unidentified characteristics of fund holdings are material, pie charts and other breakdowns may rescale identified characteristics to 100% for more intuitive presentation.)

Note that all other portfolio statistics presented in this report are based on the long (or long rescaled) holdings of the fund only.

Average Effective Duration

Duration is a time measure of a bond's interest-rate sensitivity. Average effective duration is a weighted average of the duration of the fixed-income securities within a portfolio.

Average Effective Maturity

Average Effective Maturity is a weighted average of the maturities of all bonds in a portfolio.

Average Weighted Coupon

A coupon is the fixed annual percentage paid out on a bond. The average weighted coupon is the asset-weighted coupon of each bond in the portfolio.

Average Weighted Price

Average Weighted Price is the asset-weighted price of bonds held in a portfolio, expressed as a percentage of par (face) value. This number reveals if the portfolio favors bonds selling at prices above or below par value (premium or discount securities respectively.)

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Best Fit Index
Alpha, beta, and R-squared statistics are presented for a broad market index and a "best fit" index. The Best Fit Index identified in this report was determined by Morningstar by calculating R-squared for the fund against approximately 100 indexes tracked by Morningstar. The index representing the highest R-squared is identified as the best fit index. The best fit index may not be the fund's benchmark, nor does it necessarily contain the types of securities that may be held by the fund or portfolio.

Beta
Beta is a measure of a security or portfolio's sensitivity to market movements (proxied using an index.) A beta of greater than 1 indicates more volatility than the market, and a beta of less than 1 indicates less volatility than the market.

Credit Quality Breakdown
Credit Quality breakdowns are shown for corporate-bond holdings in the fund's portfolio and depict the quality of bonds in the underlying portfolio. It shows the percentage of fixed-income securities that fall within each credit-quality rating as assigned by a Nationally Recognized Statistical Rating Organization (NRSRO). Bonds not rated by an NRSRO are included in the Other/Not-Classified category.

Deferred Load %
The back-end sales charge or deferred load is imposed when an investor redeems shares of a fund. The percentage of the load charged generally declines the longer the fund's shares are held by the investor. This charge, coupled with 12b-1 fees, commonly serves as an alternative to a traditional front-end load.

Expense Ratio %
The expense ratio is the annual fee that all funds charge their shareholders. It expresses the percentage of assets deducted each fiscal year for fund expenses, including 12b-1 fees, management fees, administrative fees, operating costs, and all other asset-based costs incurred by the fund. Portfolio transaction fees, or brokerage costs, as well as front-end or deferred sales charges are not included in the expense ratio. The expense ratio, which is deducted from the fund's average net assets, is accrued on a daily basis. The gross expense ratio, in contrast to the net expense ratio, does not reflect any fee waivers in effect during the time period.

Front-end Load %
The initial sales charge or front-end load is a deduction made from each investment in the fund and is generally based on the amount of the investment.

Geometric Average Market Capitalization
Geometric Average Market Capitalization is a measure of the size of the companies in which a portfolio invests.

Growth of 10,000
For funds, this graph compares the growth of an investment of 10,000 (in the base currency of the fund) with that of an index and/or with that of the average for all funds in its Morningstar Category. The total returns are not adjusted to reflect sales charges or the effects of taxation but are adjusted to reflect actual ongoing fund expenses, and they assume reinvestment of dividends and capital gains. If adjusted, effects of sales charges and taxation would reduce the performance quoted. If pre-inception data is included in the analysis, it will be graphed.

The index in the Growth of 10,000 graph is an unmanaged portfolio of specified securities and cannot be invested in directly. The index does not reflect any initial or ongoing expenses. A fund's portfolio may differ significantly from the securities in the index. The index is chosen by Morningstar.

Management Fees %
The management fee includes the management and administrative fees listed in the Management Fees section of a fund's prospectus. Typically, these fees represent the costs shareholders paid for management and administrative services over the fund's prior fiscal year.

Maximum Redemption Fee %
The Maximum Redemption Fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase (for example, 30, 180, or 365 days).

Mean
Mean is the annualized geometric return for the period shown.

Morningstar Analyst Rating™
Effective October 31, 2019, Morningstar updated its Morningstar Analyst Rating™ methodology. For any Morningstar Analyst Rating published on or prior to October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark, or in the case of exchange-traded funds and index mutual funds, a relevant peer group, over the long term on a risk-adjusted basis. They consider quantitative and qualitative factors in their research, and the weight of each pillar may vary. The Analyst Rating scale is Gold, Silver, Bronze, Neutral, and Negative. A Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's conviction in a fund's prospects for outperformance. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at east every 14 months. For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to global.morningstar.com/managerdisclosures/.

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

For any Morningstar Analyst Rating published after October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five-pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark over the long term on a risk adjusted basis. They consider quantitative and qualitative factors in their research. For actively managed strategies, people and process each receive a 45% weighting in their analysis, while parent receives a 10% weighting. For passive strategies, process receives an 80% weighting, while people and parent each receive a

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

10% weighting. For both active and passive strategies, performance has no explicit weight as it is incorporated into the analysis of people and process; price at the share-class level (where applicable) is directly subtracted from an expected gross alpha estimate derived from the analysis of the other pillars. The impact of the weighted pillar scores for people, process and parent on the final Analyst Rating is further modified by a measure of the dispersion of historical alphas among relevant peers. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, the modification by alpha dispersion is not used.

For active funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that an active fund will be able to deliver positive alpha net of fees relative to the standard benchmark index assigned to the Morningstar category. The level of the rating relates to the level of expected positive net alpha relative to Morningstar category peers for active funds. For passive funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will be able to deliver a higher alpha net of fees than the lesser of the relevant Morningstar category median or 0. The level of the rating relates to the level of expected net alpha relative to Morningstar category peers for passive funds. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will deliver a weighted pillar score above a predetermined threshold within its peer group. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at least every 14 months.

For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

Morningstar Quantitative Rating™

Morningstar's quantitative fund ratings consist of: (i) Morningstar Quantitative Rating (overall score), (ii) Quantitative Parent pillar, (iii) Quantitative People pillar, and (iv) Quantitative Process pillar (collectively the "Quantitative Fund Ratings".).The Quantitative Fund Ratings are calculated monthly and derived from the analyst-driven ratings of a fund's peers as determined by statistical algorithms. Morningstar, Inc. calculates Quantitative Fund Ratings for funds when an analyst rating does not exist as part of its qualitative coverage.

- ***Morningstar Quantitative Rating:*** Intended to be comparable to Morningstar's Analyst Ratings for open-end funds and ETFs, which is the summary expression of Morningstar's forward-looking analysis of a fund. The Morningstar Analyst Rating is based on the analyst's conviction in the fund's ability to outperform its peer group and/or relevant benchmark on a risk-adjusted basis over a full market cycle of at least 5 years. Ratings are assigned on a five-tier scale with three positive ratings of Gold, Silver, and Bronze, a Neutral rating, and a Negative rating. Morningstar calculates the Morningstar Quantitative Rating using a statistical model derived from the Morningstar Analyst Rating our fund analysts assign to open-end funds and ETFs. Please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx for information about Morningstar Analyst Rating Morningstar's fund analysts assign to funds.

- ***Quantitative Parent pillar:*** Intended to be comparable to Morningstar's Parent pillar scores, which provides Morningstar's analyst opinion on the stewardship quality of a firm. Morningstar calculates the Quantitative Parent pillar using an algorithm designed to predict the Parent Pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative People pillar:*** Morningstar's People pillar scores, which provides Morningstar's analyst opinion on the fund manager's talent, tenure, and resources. Morningstar calculates the Quantitative People pillar using an algorithm designed to predict the People pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative Process Pillar:*** Intended to be comparable to Morningstar's Process pillar scores, which provides Morningstar's analyst opinion on the fund's strategy and whether the management has a competitive advantage enabling it to execute the process and consistently over time. Morningstar calculates the Quantitative Process pillar using an algorithm designed to predict the Process pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), and Low (1).

Morningstar Quantitative Ratings **have not been made available** to the issuer of the security prior to publication.

Risk Warning

The quantitative fund ratings are not statements of fact. Morningstar does not guarantee the completeness or accuracy of the assumptions or models used in determining the quantitative fund ratings. In addition, there is the risk that the return target will not be met due to such things as unforeseen changes in changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, and tax rate. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions. A change in the fundamental factors underlying the quantitative fund ratings can mean that the recommendation is subsequently no longer accurate.

For more information about Morningstar's quantitative methodology, please visit https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

Morningstar Category

Morningstar Category is assigned by placing funds into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a fund's prospectus may not be sufficiently detailed for our proprietary classification methodology. Funds are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the fund is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

Morningstar Rank

Morningstar Rank is the total return percentile rank within each Morningstar Category. The highest (or most favorable) percentile rank is zero and the lowest (or least favorable) percentile rank is 100. Historical percentile ranks are based on a snapshot of a fund at the time of calculation.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Morningstar Rating™

The Morningstar Rating™for funds, or "star rating", is calculated for funds and separate accounts with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The Morningstar Rating does not include any adjustment for sales loads. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. For more information about the Morningstar Rating for funds, including its methodology, please go to global.morningstar.com/managerdisclosures

The Morningstar Return rates a fund's performance relative to other managed products in its Morningstar Category. It is an assessment of a product's excess return over a risk-free rate (the return of the 90-day Treasury Bill) in comparison with the products in its Morningstar category. In each Morningstar category, the top 10% of products earn a High Morningstar Return (High), the next 22.5% Above Average (+Avg), the middle 35% Average (Avg), the next 22.5% Below Average (-Ave), and the bottom 10% Low (Low). Morningstar Return is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Risk

Morningstar Risk evaluates a fund's downside volatility relative to that of other products in its Morningstar Category. It is an assessment of the variations in monthly returns, with an emphasis on downside variations, in comparison with the products in its Morningstar category. In each Morningstar category, the 10% of products with the lowest measured risk are described as Low Risk (Low), the next 22.5% Below Average (-Avg), the middle 35% Average (Avg), the next 22.5% Above Average (+Avg), and the top 10% High (High). Morningstar Risk is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Style Box™

The Morningstar Style Box™ reveals a fund's investment strategy as of the date noted on this report.

For equity funds, the vertical axis shows the market capitalization of the long stocks owned, and the horizontal axis shows the investment style (value, blend, or growth.) A darkened square in the style box indicates the weighted average style of the portfolio.

For fixed-income funds, the vertical axis shows the credit quality of the long bonds owned and the horizontal axis shows interest-rate sensitivity as measured by a bond's effective duration. Morningstar seeks credit rating information from fund companies on a periodic basis (for example, quarterly). In compiling credit rating information, Morningstar accepts credit ratings reported by fund companies that have been issued by all Nationally Recognized Statistical Rating Organizations. For a list of all NRSROs, please visit http://www.sec.gov/divisions/marketreg/ ratingagency.htm. Additionally, Morningstar accepts foreign credit ratings from widely recognized or registered rating agencies. If two rating organizations/ agencies have rated a security, fund companies are to report the lower rating; if three or more organizations/agencies have rated a security, fund companies are to report the median rating; and in cases where there are more than two organization/agency ratings and a median rating does not exist, fund companies are to use the lower of the two middle ratings.

Please Note: Morningstar, Inc. is not an NRSRO nor does it issue a credit rating on the fund. NRSRO or rating agency ratings can change from time to time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low," "medium," or "high" based on their average credit quality. Funds with a "low" credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; "medium" are those less than "AA-", but greater or equal to "BBB-"; and "high" are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index, which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal-bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases, static breakpoints are used. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-U.S. taxable and non-U.S. domiciled fixed-income funds, static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: more than 3.5 years but less than or equal to 6 years; (iii) Extensive: more than 6 years.

Interest-rate sensitivity for non-U.S. domiciled funds (excluding funds in convertible categories) may be measured with modified duration when effective duration is not available.

P/B Ratio TTM

The Price/Book Ratio (or P/B Ratio) for a fund is the weighted average of the P/B Ratio of the stocks in its portfolio. Book value is the total assets of a company, less total liabilities. The P/B ratio of a company is calculated by dividing the market price of its outstanding stock by the company's book value, and then adjusting for the number of shares outstanding. Stocks with negative book values are excluded from this calculation. It shows approximately how much an investor is paying for a company's assets based on historical valuations.

P/C Ratio TTM

The Price/Cash Flow Ratio (or P/C Ratio) for a fund is the weighted average of the P/C Ratio of the stocks in its portfolio. The P/C Ratio of a stock represents the amount an investor is willing to pay for a dollar generated from a company's operations. It shows the ability of a company to generate cash and acts as a gauge of liquidity and solvency.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

P/E Ratio TTM
The Price/Earnings Ratio (or P/E Ratio) for a fund is the weighted average of the P/E Ratios of the stocks in its portfolio. The P/E Ratio of a stock is the stock's current price divided by the company's trailing 12-month earnings per share. A high P/E Ratio usually indicates the market will pay more to obtain the company's earnings because it believes in the company's abilities to increase their earnings. A low P/E Ratio indicates the market has less confidence that the company's earnings will increase, however value investors may believe such stocks have an overlooked or undervalued potential for appreciation.

Percentile Rank in Category
Percentile Rank is a standardized way of ranking items within a peer group, in this case, funds within the same Morningstar Category. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable for returns (high returns), while higher percentile ranks are generally more favorable for risk measures (low risk).

Performance Quartile
Performance Quartile reflects a fund's Morningstar Rank.

Potential Capital Gains Exposure
Potential Capital Gains Exposure is an estimate of the percent of a fund's assets that represent gains. It measures how much the fund's assets have appreciated, and it can be an indicator of possible future capital gains distributions. A positive potential capital gains exposure value means that the fund's holdings have generally increased in value while a negative value means that the fund has reported losses on its book.

Quarterly Returns
Quarterly Return is calculated applying the same methodology as Total Return except it represents return through each quarter-end.

R-Squared
R-squared is the percentage of a security or portfolio's return movements that are explained by movements in its benchmark index, showing the degree of correlation between the security or portfolio and the benchmark. This figure is helpful in assessing how likely it is that beta and alpha are statistically significant. A value of 1 indicates perfect correlation between the security or portfolio and its benchmark. The lower the R-squared value, the lower the correlation.

Regional Exposure
The regional exposure is a display of the portfolio's assets invested in the regions shown on the report.

Sector Weightings
Super Sectors represent Morningstar's broadest classification of equity sectors by assigning the 11 equity sectors into three classifications. The Cyclical Super Sector includes industries significantly impacted by economic shifts, and the stocks included in these sectors generally have betas greater than 1. The Defensive Super Sector generally includes industries that are relatively immune to economic cycles, and the stocks in these industries generally have betas less than 1. The Sensitive Super Sector includes industries that ebb and flow with the overall economy, but not severely so. Stocks in the Sensitive Super Sector generally have betas that are close to 1.

Share Change
Shares Change represents the number of shares of a stock bought or sold by a fund since the previously reported portfolio of the fund.

Sharpe Ratio
Sharpe Ratio uses standard deviation and excess return (a measure of a security or portfolio's return in excess of the U.S. Treasury three-month Treasury Bill) to determine the reward per unit of risk.

Standard Deviation
Standard deviation is a statistical measure of the volatility of the security or portfolio's returns. The larger the standard deviation, the greater the volatility of return.

Standardized Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experience if the security was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Total Return
Total Return, or "Non Load-Adjusted Return", reflects performance without adjusting for sales charges (if applicable) or the effects of taxation, but it is adjusted to reflect all actual ongoing security expenses and assumes reinvestment of dividends and capital gains. It is the return an investor would have experienced if the fund was held throughout the period. If adjusted for sales charges and the effects of taxation, the performance quoted would be significantly reduced.

Total Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Trailing Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experienced if the fund was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Load-Adjusted Monthly Return is calculated applying the same methodology as Standardized Return, except that it represents return through month-end. As with Standardized Return, it reflects the impact of sales charges and ongoing fund expenses, but not taxation. If adjusted for the effects of taxation, the performance quoted would be significantly different.

Trailing Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Investment Risks

International/Emerging Market Equities: Investing in international securities involves special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Sector Strategies: Portfolios that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

to increased industry-specific risks.

Non-Diversified Strategies: Portfolios that invest a significant percentage of assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

Small Cap Equities: Portfolios that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

Mid Cap Equities: Portfolios that invest in companies with market capitalization below $10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

High-Yield Bonds: Portfolios that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

Tax-Free Municipal Bonds: The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

Bonds: Bonds are subject to interest rate risk. As the prevailing level of bond interest rates rise, the value of bonds already held in a portfolio declines. Portfolios that hold bonds are subject to declines and increases in value due to general changes in interest rates.

HOLDRs: The investor should note that these are narrow industry-focused products that, if the industry is hit by hard times, will lack diversification and possible loss of investment would be likely. These securities can trade at a discount to market price, ownership is of a fractional share interest, the underlying investments may not be representative of the particular industry, the HOLDR might be delisted from the AMEX if the number of underlying companies drops below nine, and the investor may experience trading halts.

Hedge Funds: The investor should note that hedge fund investing involves specialized risks that are dependent upon the type of strategies undertaken by the manager. This can include distressed or event-driven strategies, long/short strategies, using arbitrage (exploiting price inefficiencies), international investing, and use of leverage, options and/or derivatives. Although the goal of hedge fund managers may be to reduce volatility and produce positive absolute return under a variety of market conditions, hedge funds may involve a high degree of risk and are suitable only for investors of substantial financial means who could bear the entire loss of their investment.

Bank Loan/Senior Debt: Bank loans and senior loans are impacted by the risks associated with fixed income in general, including interest rate risk and default risk. They are often non-investment grade; therefore, the risk of default is high. These securities are also relatively illiquid. Managed products that invest in bank loans/senior debt are often highly leveraged, producing a high risk of return volatility.

Exchange Traded Notes (ETNs): ETNs are unsecured debt obligations. Any repayment of notes is subject to the issuer's ability to repay its obligations. ETNs do not typically pay interest.

Leveraged ETFs: Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their fund objectives on a daily basis (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e. 200%, 300%, -200%, or -300% or 2X, 3X, -2X, -3X). Compounding has the ability to affect the performance of the fund to be either greater or less than the index performance multiplied by the multiple stated within the funds objective over a stated time period.

Short Positions: When a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

Long-Short: Due to the strategies used by long-short funds, which may include but are not limited to leverage, short selling, short-term trading, and investing in derivatives, these funds may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

Liquidity Risk: Closed-end fund, ETF, and HOLDR trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

Market Price Risk: The market price of ETFs, HOLDRs, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

Market Risk: The market prices of ETFs and HOLDRs can fluctuate as a result of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

Target-Date Funds: Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximate date when investors expect to begin withdrawing their money. A target-date fund's investment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including at the fund's target date.

High double- and triple-digit returns: High double- and triple-digit returns were the result of extremely favorable market conditions, which may not continue to be the case. High returns for short time periods must not be a major factor when making investment decisions.

Benchmark Disclosure

BBgBarc US Agg Bond TR USD
This index is composed of the BarCap Government/Credit Index, the Mortgage-Backed Securities Index, and the Asset-Backed Securities Index. The returns we publish for the index are total returns, which includes the daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core US Aggregate Bond ETF.

MSCI EAFE NR USD
This Europe, Australasia, and Far East index is a market-capitalization-weighted index of 21 non-U.S., industrialized country indexes.

This disclosure applies to all MSCI indices: Certain information included herein is derived by Morningstar in part from MSCI's Index Constituents (the "Index

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Data"). However, MSCI has not reviewed any information contained herein and does not endorse or express any opinion such information or analysis. MSCI does not make any express or implied warranties, representations or guarantees concerning the Index Data or any information or data derived therefrom, and in no event will MSCI have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of this information.

Russell 1000 TR USD
Consists of the 1000 largest companies within the Russell 3000 index, which represents approximately 98% of the investable US equity market. Also known as the Market-Oriented Index, because it represents the group of stocks from which most active money managers choose. The constituents displayed for this index are from the following proxy: iShares Russell 1000 ETF.

Russell 3000 TR USD
Composed of the 3000 largest U.S. companies by market capitalization, representing approximately 98% of the U.S. equity market. The constituents displayed for this index are from the following proxy: iShares Russell 3000 ETF.

S&P 500 TR USD
A market capitalization-weighted index composed of the 500 most widely held stocks whose assets and/or revenues are based in the US; it's often used as a proxy for the U.S. stock market. TR (Total Return) indexes include daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: SPDR® S&P 500 ETF Trust.

USTREAS T-Bill Auction Ave 3 Mon
Three-month T-bills are government-backed, short-term investments considered to be risk-free and as good as cash because the maturity is only three months. Morningstar collects yields on the T-bill on a weekly basis from the Wall Street Journal.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Fidelity U.S. Bond Index Fund (FXNAX)

Firm Background*

Fidelity Institutional Asset Management Trust Company (FIAM) is the US-based investment management subsidiary of Fidelity Management & Research (FRM). FRM is a large, privately-held, multi-service financial services firm founded in 1946 by Edward C. Johnson. FMR is currently under the leadership of CEO Abigail Johnson. Approximately 49% of FMR is owned by Ms. Johnson and other members of the Johnson family. 51% is held by employees and former employees.

FIAM was established in 2015 through the combination of Pyramis Global Advisors and Fidelity Financial Advisor Solutions, which served, respectively, institutional and retail investment management clients. The firm manages roughly $175 billion across fixed income (38%), multi-asset (32%), and equity (28%), with cash and alternatives comprising the balance. Judy Marlinski is President of FIAM, She reports to Mike Dervin, Head of Fidelity Institutional at FMR.

Organization*

FMR and, by extension, FIAM are highly complex and deeply intertwined organizations. Differences between functional business units and legal entities are often indistinct, but the high degree of involvement from the senior ranks of the FMR organization, particularly given the hands-on approach of FMR CEO Abigail Johnson, appear to manage this complexity effectively. FIAM is large, owing a portion of its success to the strong brand and distribution power of the parent company. The firm maintains a diversified client base and product line, as well as a strong investment culture. Senior leadership at FIAM has experienced some significant changes over the past two years, most notably the retirement of Charlie Morrison, FMR's President of Asset Management, in December of 2018 and the departure of Scott Cuoto, President of FIAM in mid-2017. The President of FIAM reports into the President of Asset Management at FRM Additionally, the firm has experienced high profile sexual harassment claims in recent years, leading to some turnover among senior investment professionals. This may indicate that the firm has non-investment-related cultural issues, which can still damage the likelihood of success for the investment teams. However, senior management responded forcefully, and we will continue to monitor the organization for cultural and legal issues.

Strategy**

Fidelity® U.S. Bond Index Fund seeks to provide investment results that correspond to the aggregate price and interest performance of the debt securities in the Bloomberg Barclays U.S. Aggregate Bond Index.

Normally investing at least 80% of the fund's assets in bonds included in the Bloomberg Barclays U.S. Aggregate Bond Index. Using statistical sampling techniques based on duration, maturity, interest rate sensitivity, security structure, and credit quality to attempt to replicate the returns of the Index using a smaller number of securities. Engaging in transactions that have a leveraging effect on the fund, including investments in derivatives - such as swaps (interest rate, total return, and credit default) and futures contracts - and forward-settling securities, to adjust the fund's risk exposure. Investing in Fidelity's central funds (specialized investment vehicles used by Fidelity funds to invest in particular security types or investment disciplines).

Summary***

Under our new ratings framework, which places greater emphasis on fees, the fund warrants an upgrade to a Morningstar Analyst Rating of Gold from Silver.

The strategy tracks the Bloomberg Barclays U.S. Aggregate Bond Index, which includes investment-grade U.S. dollar-denominated bonds with at least one year until maturity. The index is weighted by market value, tilting the portfolio toward the largest, most liquid issues, which are easy to obtain and cheap to trade. This approach also harnesses the market's collective wisdom about the relative value of each security. That said, bond issuing activity influences the composition of this portfolio.

The U.S. government is the largest debt issuer in the United States, so the portfolio maintains a larger position in Treasuries relative to the intermediate core bond Morningstar Category average. The strategy invests nearly 70% of its assets in Treasuries and agency mortgaged-backed securities, which carry AAA ratings, while the corresponding figure for the category average is only about 45%. While this might limit the fund's return potential, its lower credit risk should offer better downside protection.

This portfolio has minimal credit risk, which can make it a low hurdle for active managers. That does not make this an unattractive proposition, as risk and return are highly correlated in the fixed-income market. Nearly 75% of the assets in this portfolio carry a AAA rating, making it one of the more conservative options in the category. Like most investment-grated portfolios, interest-rate risk is the biggest drivers of this fund's returns. Its average effective duration is about 5.50 years as of February 2020, generally in line with the category average.

While conservative, the fund's corporate bond sleeve maintains a tilt toward BBB rated issues. As of February 2020, about 20% of the fund's assets were in corporate bonds, while just under 10% of the fund's assets were rated BBB.

Performance***

The fund's performance from its inception in May 2011 through March 2020 has been solid. It beat the category average by 30 basis points annually, which ranked in the category's top third, largely thanks to its cost advantage.

The fund's category-relative performance is largely related to credit spreads, given its Treasury-heavy tilt. The fund has tended to outperform category peers during periods of widening credit spreads, and it has tended to lag during periods of tightening credit spreads. For example, the strategy outperformed its average category peer by 1.13% during 2011, as the ICE Bank of America BBB Option-Adjusted Spread, or OAS, widened by 1.04%. Conversely, the fund lagged the category average by 1.41% during 2012, as the OAS tightened by 1.07%.

The fund's conservative credit risk should help it weather periods of market turmoil better than most of its category peers. For instance, the strategy did not decline by nearly as much as its average peer during the onset of the novel coronavirus economic crisis, between Feb. 20, 2020, and March 22, 2020. During that time, the fund fell by 2.01% while the category average fell by 3.75%.

Over the trailing five years through March 2020, the strategy's returns matched its index.

Price***

It's critical to evaluate expenses, as they come directly out of returns. The share class on this report levies a fee that ranks in its Morningstar category's cheapest quintile. Based on our assessment of the fund's People, Process and Parent pillars in the context of these fees, we think this share class will be able to

deliver positive alpha relative to the category benchmark index, explaining its Morningstar Analyst Rating of Gold.

Process: Above Average***

This portfolio replicates the composition of the U.S.-dollar-denominated investment-grade bond market, effectively harnessing the market's collective wisdom about the relative value of each bond. This is a sound approach because it promotes low turnover, is cost-effective, and because the market does a decent job pricing these bonds. It earns an Above Average Process Pillar rating.

The strategy employs representative sampling to track the performance of the Aggregate Index, which includes investment-grade U.S.-dollar-denominated bonds with at least one year until maturity. Qualifying bonds must have at least $300 million in outstanding face value. The index weights its holdings by their market value and is rebalanced monthly. This yields a conservative portfolio, which limits its return potential but also cuts downside risk.

The composition of the portfolio is conservative, reflecting the size and quality of the U.S. investment-grade bond market. The amount of debt issued by the U.S. Treasury Department grew sharply since the global financial crisis, and the portfolio maintains a larger percentage of its assets in Treasury bonds as a result.

As of February 2020, approximately 45% of the fund's assets were in Treasury bonds, versus the category average of slightly less than 25%. The bulk of the fund's remaining balance is composed of agency MBS and corporate debt, which represent about 25% and 22% of the portfolio's assets, respectively. While this limit's the fund's potential for returns, it also limits potential losses.

Although it represents only about one fifth of the portfolio, the fund's corporate bond sleeve contains most of the fund's credit risk. In addition to the growth of the Treasury bonds, the U.S. corporate bond market also grew in response to the global financial crisis, as companies issued debt to capitalize on low interest rates. As a result, BBB corporate bonds grew rapidly and now represent about half of the market value of all investment-grade corporate bonds. Accordingly, nearly 10% of the strategy's assets are rated BBB.

The strategy's interest-rate risk is line with category peers. As of February 2020, its average effective duration was 5.5 years.

People: Above Average***

Fidelity maintains a relatively small portfolio management team, but the team enjoys strong support from Fidelity's broader fixed-income portfolio management department. As a result, it enjoys the benefits of a large and experienced team supported by a centralized trading desk, which mitigates key-person risk. This team earns an Above Average People rating.

Brandon Bettencourt and Jay Small have managed this fund since 2014 and 2015, respectively. Prior to serving as portfolio managers, Bettencourt was a portfolio analyst while Small was a corporate bond trader. Two quantitative research analysts assist the named managers.

The portfolio managers are primarily responsible for managing the daily operations of the fund. The quant analysts act as an extension of the portfolio managers, applying input from Fidelity's research team to help mitigate index-tracking error. The portfolio managers benefit from the technical expertise of the quant analysts when identifying baskets of securities for creations or redemptions.

Independent oversight of the fund is provided by the office of the chief investment officer, who leads a team that independently reviews the index portfolios and index-tracking performance. Fidelity links manager compensation to index-tracking performance, aligning managers' interest with investors'.

* Source: BNY Mellon Manager Research Group, as of July 2019
** Source: Fidelity (FMR, LLC), as of 6/30/2020
*** Source: Morningstar, Inc., as of 4/1/2020

Release date 07-31-2020 | Note: Portions of the analysis are based on pre-inception returns. Please read disclosure for more information. Page 1 of 11

Fidelity® US Bond Index (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Gold 04-01-2020	★★★★ 375 US Fund Intermediate Core Bond	BBgBarc US Agg Bond TR USD	BBgBarc US Agg Bond TR USD	US Fund Intermediate Core Bond

Performance 07-31-2020

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2018	-1.51	-0.22	0.07	1.70	0.01
2019	2.96	2.97	2.27	0.06	8.48
2020	3.86	2.77	—	—	6.64

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	10.23	5.71	4.45	—	3.94
Std 06-30-2020	9.01	—	4.32	—	3.62
Total Return	10.23	5.71	4.45	3.83	3.94
+/- Std Index	0.11	0.02	-0.02	-0.04	—
+/- Cat Index	0.11	0.02	-0.02	-0.04	—
% Rank Cat	30	23	29	48	
No. in Cat	418	375	331	248	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-544-8544 or visit www.institional.fidelity.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.03
12b1 Expense %	NA
Net Expense Ratio %	**0.03**
Gross Expense Ratio %	**0.03**

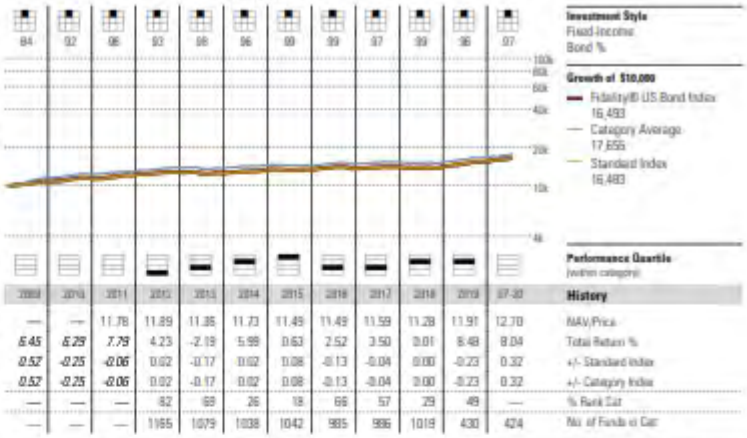
Risk and Return Profile

	3 Yr 375 funds	5 Yr 331 funds	10 Yr 248 funds
Morningstar Rating™	4★	4★	3★
Morningstar Risk	-Avg	Avg	Avg
Morningstar Return	+Avg	+Avg	Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	3.33	3.17	3.04
Mean	5.71	4.45	3.83
Sharpe Ratio	1.19	1.03	1.06

MPT Statistics	Standard Index	Best Fit Index BBgBarc US Agg Bond TR USD
Alpha	0.04	0.04
Beta	1.00	1.00
R-Squared	99.03	99.03

12-Month Yield	—
Potential Cap Gains Exp	0.00%



Investment Style
Fixed Income
Bond %

Growth of $10,000
- Fidelity® US Bond Index 16,493
- Category Average 17,655
- Standard Index 16,483

Performance Quartile (within category)

	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	07-20	History
	—	—	11.78	11.89	11.86	11.73	11.49	11.49	11.59	11.28	11.91	12.70	NAV/Price
	6.45	6.29	7.79	4.23	-2.19	5.99	0.63	2.52	3.50	0.01	8.48	8.04	Total Return %
	0.57	-0.25	-0.06	0.02	-0.17	0.02	0.08	-0.13	-0.04	0.00	-0.23	0.32	+/- Standard Index
	0.57	-0.25	-0.06	0.02	-0.17	0.02	0.08	-0.13	-0.04	0.00	-0.23	0.32	+/- Category Index
	—	—	—	82	69	26	18	66	57	29	49	—	% Rank Cat
	—	—	—	1165	1079	1038	1042	985	986	1019	430	424	No. of Funds in Cat

Portfolio Analysis 06-30-2020

Asset Allocation %	Net %	Long %	Short %
Cash	2.66	2.66	0.00
US Stocks	0.00	0.00	0.00
Non-US Stocks	0.00	0.00	0.00
Bonds	96.64	96.64	0.00
Other/Not Clsfd	0.70	0.70	0.00
Total	100.00	100.00	0.00

Equity Style

Value	Blend	Growth	
			Large
			Mid
			Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	—	—	—
P/C Ratio TTM	—	—	—
P/B Ratio TTM	—	—	—
Geo Avg Mkt Cap $mil	—	—	—

Fixed-Income Style

Ltd	Mod	Ext	
			High
			Med
			Low

Avg Eff Maturity	—
Avg Eff Duration	5.58
Avg Wtd Coupon	—
Avg Wtd Price	111.15

Credit Quality Breakdown 06-30-2020

	Bond %
AAA	73.30
AA	4.18
A	12.04
BBB	10.24
BB	0.17
B	0.00
Below B	0.00
NR	0.07

Regional Exposure

	Stocks %	Rel Std Index
Americas	—	—
Greater Europe	—	—
Greater Asia	—	—

Share Chg since 05-2020	Share Amount	Holdings: 0 Total Stocks, 2,186 Total Fixed-Income, 35% Turnover Ratio	Net Assets %
⊕	1,585 mil	Fannie Mae 3% 30 Year	3.20
⊖	1,293 mil	Fidelity Revere Str Tr	2.45
⊖	1,129 mil	Ginnie Mae 3.5% 30 Year	2.28
⊕	1,095 mil	Ginnie Mae 3% 30 Year	2.20
⊖	1,083 mil	Fannie Mae 4% 30 Year	2.20
⊖	908 mil	Fannie Mae 3.5% 30 Year	1.83
⊖	776 mil	Freddie Mac 3.5% 30 Year	1.56
	611 mil	United States Treasury Notes 2.25%	1.30
✲	659 mil	United States Treasury Notes 0.12%	1.25
⊖	621 mil	Freddie Mac 3% 30 Year	1.25
⊖	553 mil	Ginnie Mae 4% 30 Year	1.12
⊕	555 mil	Umbs 3.5% 30 Year	1.10
	320 mil	United States Treasury Bonds 5%	0.99
	478 mil	United States Treasury Notes 1.5%	0.98
⊖	471 mil	Freddie Mac 4% 30 Year	0.95

Sector Weightings	Stocks %	Rel Std Index
Cyclical	—	—
Basic Materials	—	—
Consumer Cyclical	—	—
Financial Services	—	—
Real Estate	—	—
Sensitive	—	—
Communication Services	—	—
Energy	—	—
Industrials	—	—
Technology	—	—
Defensive	—	—
Consumer Defensive	—	—
Healthcare	—	—
Utilities	—	—

Operations

Family:	Fidelity Investments	Base Currency:	USD	Purchase Constraints:	A
Manager:	Multiple	Ticker:	FXNAX	Incept:	05-04-2011
Tenure:	6.3 Years	ISIN:	US3161463563	Type:	MF
Objective:	Multisector Bond	Minimum Initial Purchase:	$0	Total Assets:	$54,038.91 mil

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Standardized and Tax Adjusted Returns Disclosure Statement

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end please visit http://advisor.morningstar.com/familyinfo.asp.

Standardized Returns assume reinvestment of dividends and capital gains. They depict performance without adjusting for the effects of taxation, but are adjusted to reflect sales charges and ongoing fund expenses.

If adjusted for taxation, the performance quoted would be significantly reduced. For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges. The maximum redemption fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase.

After-tax returns are calculated using the highest individual federal marginal income tax rates, and do not reflect the impact of state and local taxes. Actual after-tax returns depend on the investor's tax situation and may differ from those shown. The after-tax returns shown are not relevant to investors who hold their fund shares through tax-deferred arrangements such as 401(k) plans or an IRA. After-tax returns exclude the effects of either the alternative minimum tax or phase-out of certain tax credits. Any taxes due are as of the time the distributions are made, and the taxable amount and tax character of each distribution are as specified by the fund on the dividend declaration date. Due to foreign tax credits or realized capital losses, after-tax returns may be greater than before-tax returns. After-tax returns for exchange-traded funds are based on net asset value.

Money Market Fund Disclosures

If money market fund(s) are included in the Standardized Returns table below, each money market fund's name will be followed by a superscripted letter that links it to the applicable disclosure below:

Institutional Money Market Funds (designated by an "S"):

You could lose money by investing in the fund. Because the share price of the fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "L") and

Retail Money Market Funds (designated by an "L"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen not to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "N"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Annualized returns 06-30-2020

Standardized Returns (%)	7-day Yield Subsidized as of date	7-day Yield Unsubsidized as of date	YTD	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
Fidelity® US Bond Index	—	—	9.01	4.32	—	3.82	05-04-2011	NA	NA	0.03	0.03	NA
BBgBarc US Agg Bond TR USD			**8.74**	**4.30**	**3.82**	—	**01-03-1990**					
MSCI EAFE NR USD			**-5.13**	**2.05**	**5.73**	—	**03-31-1986**					
S&P 500 TR USD			**7.51**	**10.73**	**13.99**	—	**09-11-1989**					
USTREAS T-Bill Auction Ave 3 Mon			**1.26**	**1.17**	**0.62**	—	**02-28-1941**					

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distribution is made. The information, data, analyses and opinions contained herein: (1) contain the confidential and proprietary information of Morningstar; (2) may include, or be based from, accurate information provided to you from financial professionals which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or summary, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Annualized returns 06-30-2020

Return after Tax (%)	On Distribution					On Distribution and Sales of Shares			
	1Yr	5Yr	10Yr	Since Inception	Inception Date	1Yr	5Yr	10Yr	Since Inception
Fidelity® US Bond Index	7.93	3.19	—	2.69	05-04-2011	5.32	2.80	—	2.46

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Mutual Fund Detail Report Disclosure Statement

The Mutual Fund Detail Report is supplemental sales literature, and therefore must be preceded or accompanied by the mutual fund's current prospectus or an equivalent statement. Please read this information carefully. In all cases, this disclosure statement should accompany the Mutual Fund Detail Report. Morningstar is not itself a FINRA-member firm.

All data presented is based on the most recent information available to Morningstar as of the release date and may or may not be an accurate reflection of current data for securities included in the fund's portfolio. There is no assurance that the data will remain the same.

Unless otherwise specified, the definition of "funds" used throughout this Disclosure Statement includes closed-end funds, exchange-traded funds, grantor trusts, index mutual funds, open-ended mutual funds, and unit investment trusts. It does not include exchange-traded notes or exchange-traded commodities.

Prior to 2016, Morningstar's methodology evaluated open-end mutual funds and exchange-traded funds as separate groups. Each group contained a subset of the current investments included in our current comparative analysis. In this report, historical data presented on a calendar-year basis and trailing periods ending at the most-recent month-end reflect the updated methodology.

Risk measures (such as alpha, beta, r-squared, standard deviation, mean, or Sharpe ratio) are calculated for securities or portfolios that have at least a three-year history.

Most Morningstar rankings do not include any adjustment for one-time sales charges, or loads. Morningstar does publish load-adjusted returns, and ranks such returns within a Morningstar Category in certain reports. The total returns for ETFs and fund share classes without one-time loads are equal to Morningstar's calculation of load-adjusted returns. Share classes that are subject to one-time loads relating to advice or sales commissions have their returns adjusted as part of the load-adjusted return calculation to reflect those loads.

Comparison of Fund Types

Funds, including closed-end funds, exchange-traded funds (ETFs), money market funds, open-end funds, and unit investment trusts (UITs), have many similarities, but also many important differences. In general, publically-offered funds are investment companies registered with the Securities and Exchange Commission under the Investment Company Act of 1940, as amended. Funds pool money from their investors and manage it according to an investment strategy or objective, which can vary greatly from fund to fund. Funds have the ability to offer diversification and professional management, but also involve risk, including the loss of principal.

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. A closed-end mutual fund's expense ratio is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Closed-end funds may also have 12b-1 fees. Income distributions and capital gains of the closed-end fund are subject to income tax, if held in a taxable account.

An ETF is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, an ETF can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. ETFs are not actively managed, so their value may be affected by a general decline in the U.S. market segments relating to their underlying indexes. Similarly, an imperfect match between an ETF's holdings and those of its underlying index may cause its performance to vary from that of its underlying index. The expense ratio of an ETF is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. ETFs do not have 12b-1 fees or sales loads. Capital gains from funds held in a taxable account are subject to income tax. In many, but not all cases, ETFs are generally considered to be more tax-efficient when compared to similarly invested mutual funds.

Holding company depository receipts (HOLDRs) are similar to ETFs, but they focus on narrow industry groups. HOLDRs initially own 20 stocks, which are unmanaged, and can become more concentrated due to mergers, or the disparate performance of their holdings. HOLDRs can only be bought in 100-share increments. Investors may exchange shares of a HOLDR for its underlying stocks at any time.

A money-market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and are not guaranteed by a bank or other financial institution.

An open-end fund is an investment company that issues shares on a continuous basis. Shares can be purchased from the open-end mutual fund itself, or through an intermediary, but cannot be traded on a secondary market, such as the New York Stock Exchange. Investors pay the open-end mutual fund's current net asset value plus any initial sales loads. Net asset value is calculated daily, at the close of business. Open-end mutual fund shares can be redeemed, or sold back to the fund or intermediary, at their current net asset value minus any deferred sales loads or redemption fees. The expense ratio for an open-end mutual fund is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Open-end funds may also have 12b-1 fees. Income distributions and capital gains of the open-end fund are subject to income tax, if held in a taxable account.

A unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units. A one-time initial sales charge is deducted from an investment made into the trust. UIT investors may also pay creation and development fees, organization costs, and/or trustee and operation expenses. UIT units may be redeemed by the sponsor at their net

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

asset value minus a deferred sales charge, and sold to other investors. UITs have set termination dates, at which point the underlying securities are sold and the sales proceeds are paid to the investor. Typically, a UIT investment is rolled over into successive trusts as part of a long-term strategy. A rollover fee may be charged for the exercise of rollover purchases. There are tax consequences associated with rolling over an investment from one trust to the next.

Performance

The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares, when sold, may be worth more or less than the original investment. Fund portfolio statistics change over time. Funds are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution.

Morningstar calculates after-tax returns using the highest applicable federal marginal income tax rate plus the investment income tax and Medicare surcharge. As of 2018, this rate is 37% plus 3.8% investment income plus 0.9% Medicare surcharge, or 41.7%. This rate changes periodically in accordance with changes in federal law.

Pre-Inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the inception of the share class of the fund shown in this report ("Report Share Class"). If pre-inception returns are shown, a performance stream consisting of the Report Share Class and older share class(es) is created. Morningstar adjusts pre-inception returns downward to reflect higher expenses in the Report Share Class, we do not hypothetically adjust returns upwards for lower expenses. For more information regarding calculation of pre-inception returns please see the Morningstar Extended Performance Methodology.

When pre-inception data is presented in the report, the header at the top of the report will indicate this. In addition, the pre-inception data included in the report will appear in italics.

While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of newer share classes of a fund, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. For example, the fee structures of a retail share class will vary from that of an institutional share class, as retail shares tend to have higher operating expenses and sales charges. These adjusted historical returns are not actual returns. The underlying investments in the share classes used to calculate the pre-performance string will likely vary from the underlying investments held in the fund after inception. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the fund itself.

12b1 Expense %

A 12b-1 fee is a fee used to pay for a mutual fund's distribution costs. It is often used as a commission to brokers for selling the fund. The amount of the fee is taken from a fund's returns.

Alpha

Alpha is a measure of the difference between a security or portfolio's actual returns and its expected performance, given its level of risk (as measured by beta.) Alpha is often seen as a measure of the value added or subtracted by a portfolio manager.

Asset Allocation

Asset Allocation reflects asset class weightings of the portfolio. The "Other" category includes security types that are not neatly classified in the other asset classes, such as convertible bonds and preferred stocks, or cannot be classified by Morningstar as a result of missing data. Morningstar may display asset allocation data in several ways, including tables or pie charts. In addition, Morningstar may compare the asset class breakdown of the fund against its three-year average, category average, and/or index proxy.

Asset allocations shown in tables may include a breakdown among the long, short, and net (long positions net of short) positions. These statistics summarize what the fund's managers are buying and how they are positioning the fund's portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the fund's exposure and risk. Long positions involve buying the security outright and selling it later, with the hope the security's price rises over time. Short positions are taken with the hope of benefitting from anticipated price declines. The investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience a loss buying it at a higher price than the sale price.

Most fund portfolios hold fairly conventional securities, such as long positions in equities and bonds. Morningstar may generate a colored pie chart for these portfolios. Other portfolios use other investment strategies or securities, such as short positions or derivatives, in an attempt to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while other have unique return and risk characteristics. Portfolios that incorporate investment strategies resulting in short positions or portfolio with relatively exotic derivative positions often report data to Morningstar that does not meet the parameters of the calculation underlying a pie chart's generation. Because of the nature of how these securities are reported to Morningstar, we may not always get complete portfolio information to report asset allocation. Morningstar, at its discretion, may determine if unidentified characteristics of fund holdings are material. Asset allocation and other breakdowns may be rescaled accordingly so that percentages total to 100 percent. (Morningstar used discretion to determine if unidentified characteristics of fund holdings are material, pie charts and other breakdowns may rescale identified characteristics to 100% for more intuitive presentation.)

Note that all other portfolio statistics presented in this report are based on the long (or long rescaled) holdings of the fund only.

Average Effective Duration

Duration is a time measure of a bond's interest-rate sensitivity. Average effective duration is a weighted average of the duration of the fixed-income securities within a portfolio.

Average Effective Maturity

Average Effective Maturity is a weighted average of the maturities of all bonds in a portfolio.

Average Weighted Coupon

A coupon is the fixed annual percentage paid out on a bond. The average weighted coupon is the asset-weighted coupon of each bond in the portfolio.

Average Weighted Price

Average Weighted Price is the asset-weighted price of bonds held in a portfolio, expressed as a percentage of par (face) value. This number reveals if the portfolio favors bonds selling at prices above or below par value (premium or discount securities respectively.)

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Best Fit Index
Alpha, beta, and R-squared statistics are presented for a broad market index and a "best fit" index. The Best Fit Index identified in this report was determined by Morningstar by calculating R-squared for the fund against approximately 100 indexes tracked by Morningstar. The index representing the highest R-squared is identified as the best fit index. The best fit index may not be the fund's benchmark, nor does it necessarily contain the types of securities that may be held by the fund or portfolio.

Beta
Beta is a measure of a security or portfolio's sensitivity to market movements (proxied using an index.) A beta of greater than 1 indicates more volatility than the market, and a beta of less than 1 indicates less volatility than the market.

Credit Quality Breakdown
Credit Quality breakdowns are shown for corporate-bond holdings in the fund's portfolio and depict the quality of bonds in the underlying portfolio. It shows the percentage of fixed-income securities that fall within each credit-quality rating as assigned by a Nationally Recognized Statistical Rating Organization (NRSRO). Bonds not rated by an NRSRO are included in the Other/Not-Classified category.

Deferred Load %
The back-end sales charge or deferred load is imposed when an investor redeems shares of a fund. The percentage of the load charged generally declines the longer the fund's shares are held by the investor. This charge, coupled with 12b-1 fees, commonly serves as an alternative to a traditional front-end load.

Expense Ratio %
The expense ratio is the annual fee that all funds charge their shareholders. It expresses the percentage of assets deducted each fiscal year for fund expenses, including 12b-1 fees, management fees, administrative fees, operating costs, and all other asset-based costs incurred by the fund. Portfolio transaction fees, or brokerage costs, as well as front-end or deferred sales charges are not included in the expense ratio. The expense ratio, which is deducted from the fund's average net assets, is accrued on a daily basis. The gross expense ratio, in contrast to the net expense ratio, does not reflect any fee waivers in effect during the time period.

Front-end Load %
The initial sales charge or front-end load is a deduction made from each investment in the fund and is generally based on the amount of the investment.

Geometric Average Market Capitalization
Geometric Average Market Capitalization is a measure of the size of the companies in which a portfolio invests.

Growth of 10,000
For funds, this graph compares the growth of an investment of 10,000 (in the base currency of the fund) with that of an index and/or with that of the average for all funds in its Morningstar Category. The total returns are not adjusted to reflect sales charges or the effects of taxation but are adjusted to reflect actual ongoing fund expenses, and they assume reinvestment of dividends and capital gains. If adjusted, effects of sales charges and taxation would reduce the performance quoted. If pre-inception data is included in the analysis, it will be graphed.

The index in the Growth of 10,000 graph is an unmanaged portfolio of specified securities and cannot be invested in directly. The index does not reflect any initial or ongoing expenses. A fund's portfolio may differ significantly from the securities in the index. The index is chosen by Morningstar.

Management Fees %
The management fee includes the management and administrative fees listed in the Management Fees section of a fund's prospectus. Typically, these fees represent the costs shareholders paid for management and administrative services over the fund's prior fiscal year.

Maximum Redemption Fee %
The Maximum Redemption Fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase (for example, 30, 180, or 365 days).

Mean
Mean is the annualized geometric return for the period shown.

Morningstar Analyst Rating™
Effective October 31, 2019, Morningstar updated its Morningstar Analyst Rating™ methodology. For any Morningstar Analyst Rating published on or prior to October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark, or in the case of exchange-traded funds and index mutual funds, a relevant peer group, over the long term on a risk-adjusted basis. They consider quantitative and qualitative factors in their research, and the weight of each pillar may vary. The Analyst Rating scale is Gold, Silver, Bronze, Neutral, and Negative. A Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's conviction in a fund's prospects for outperformance. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at east every 14 months. For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to global.morningstar.com/managerdisclosures/.

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

For any Morningstar Analyst Rating published after October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five-pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark over the long term on a risk adjusted basis. They consider quantitative and qualitative factors in their research. For actively managed strategies, people and process each receive a 45% weighting in their analysis, while parent receives a 10% weighting. For passive strategies, process receives an 80% weighting, while people and parent each receive a

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

10% weighting. For both active and passive strategies, performance has no explicit weight as it is incorporated into the analysis of people and process; price at the share-class level (where applicable) is directly subtracted from an expected gross alpha estimate derived from the analysis of the other pillars. The impact of the weighted pillar scores for people, process and parent on the final Analyst Rating is further modified by a measure of the dispersion of historical alphas among relevant peers. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, the modification by alpha dispersion is not used.

For active funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that an active fund will be able to deliver positive alpha net of fees relative to the standard benchmark index assigned to the Morningstar category. The level of the rating relates to the level of expected positive net alpha relative to Morningstar category peers for active funds. For passive funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will be able to deliver a higher alpha net of fees than the lesser of the relevant Morningstar category median or 0. The level of the rating relates to the level of expected net alpha relative to Morningstar category peers for passive funds. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will deliver a weighted pillar score above a predetermined threshold within its peer group. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at least every 14 months.

For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

Morningstar Quantitative Rating™

Morningstar's quantitative fund ratings consist of: (i) Morningstar Quantitative Rating (overall score), (ii) Quantitative Parent pillar, (iii) Quantitative People pillar, and (iv) Quantitative Process pillar (collectively the "Quantitative Fund Ratings".).The Quantitative Fund Ratings are calculated monthly and derived from the analyst-driven ratings of a fund's peers as determined by statistical algorithms. Morningstar, Inc. calculates Quantitative Fund Ratings for funds when an analyst rating does not exist as part of its qualitative coverage.

- ***Morningstar Quantitative Rating:*** Intended to be comparable to Morningstar's Analyst Ratings for open-end funds and ETFs, which is the summary expression of Morningstar's forward-looking analysis of a fund. The Morningstar Analyst Rating is based on the analyst's conviction in the fund's ability to outperform its peer group and/or relevant benchmark on a risk-adjusted basis over a full market cycle of at least 5 years. Ratings are assigned on a five-tier scale with three positive ratings of Gold, Silver, and Bronze, a Neutral rating, and a Negative rating. Morningstar calculates the Morningstar Quantitative Rating using a statistical model derived from the Morningstar Analyst Rating our fund analysts assign to open-end funds and ETFs. Please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx for information about Morningstar Analyst Rating Morningstar's fund analysts assign to funds.

- ***Quantitative Parent pillar:*** Intended to be comparable to Morningstar's Parent pillar scores, which provides Morningstar's analyst opinion on the stewardship quality of a firm. Morningstar calculates the Quantitative Parent pillar using an algorithm designed to predict the Parent Pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative People pillar:*** Morningstar's People pillar scores, which provides Morningstar's analyst opinion on the fund manager's talent, tenure, and resources. Morningstar calculates the Quantitative People pillar using an algorithm designed to predict the People pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative Process Pillar:*** Intended to be comparable to Morningstar's Process pillar scores, which provides Morningstar's analyst opinion on the fund's strategy and whether the management has a competitive advantage enabling it to execute the process and consistently over time. Morningstar calculates the Quantitative Process pillar using an algorithm designed to predict the Process pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), and Low (1).

Morningstar Quantitative Ratings **have not been made available** to the issuer of the security prior to publication.

Risk Warning

The quantitative fund ratings are not statements of fact. Morningstar does not guarantee the completeness or accuracy of the assumptions or models used in determining the quantitative fund ratings. In addition, there is the risk that the return target will not be met due to such things as unforeseen changes in changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, and tax rate. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions. A change in the fundamental factors underlying the quantitative fund ratings can mean that the recommendation is subsequently no longer accurate.

For more information about Morningstar's quantitative methodology, please visit https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

Morningstar Category

Morningstar Category is assigned by placing funds into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a fund's prospectus may not be sufficiently detailed for our proprietary classification methodology. Funds are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the fund is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

Morningstar Rank

Morningstar Rank is the total return percentile rank within each Morningstar Category. The highest (or most favorable) percentile rank is zero and the lowest (or least favorable) percentile rank is 100. Historical percentile ranks are based on a snapshot of a fund at the time of calculation.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Morningstar Rating™

The Morningstar Rating™for funds, or "star rating", is calculated for funds and separate accounts with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The Morningstar Rating does not include any adjustment for sales loads. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. For more information about the Morningstar Rating for funds, including its methodology, please go to global.morningstar.com/managerdisclosures

The Morningstar Return rates a fund's performance relative to other managed products in its Morningstar Category. It is an assessment of a product's excess return over a risk-free rate (the return of the 90-day Treasury Bill) in comparison with the products in its Morningstar category. In each Morningstar category, the top 10% of products earn a High Morningstar Return (High), the next 22.5% Above Average (+Avg), the middle 35% Average (Avg), the next 22.5% Below Average (-Ave), and the bottom 10% Low (Low). Morningstar Return is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Risk

Morningstar Risk evaluates a fund's downside volatility relative to that of other products in its Morningstar Category. It is an assessment of the variations in monthly returns, with an emphasis on downside variations, in comparison with the products in its Morningstar category. In each Morningstar category, the 10% of products with the lowest measured risk are described as Low Risk (Low), the next 22.5% Below Average (-Avg), the middle 35% Average (Avg), the next 22.5% Above Average (+Avg), and the top 10% High (High). Morningstar Risk is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Style Box™

The Morningstar Style Box™ reveals a fund's investment strategy as of the date noted on this report.

For equity funds, the vertical axis shows the market capitalization of the long stocks owned, and the horizontal axis shows the investment style (value, blend, or growth.) A darkened square in the style box indicates the weighted average style of the portfolio.

For fixed-income funds, the vertical axis shows the credit quality of the long bonds owned and the horizontal axis shows interest-rate sensitivity as measured by a bond's effective duration. Morningstar seeks credit rating information from fund companies on a periodic basis (for example, quarterly). In compiling credit rating information, Morningstar accepts credit ratings reported by fund companies that have been issued by all Nationally Recognized Statistical Rating Organizations. For a list of all NRSROs, please visit http://www.sec.gov/divisions/marketreg/ ratingagency.htm. Additionally, Morningstar accepts foreign credit ratings from widely recognized or registered rating agencies. If two rating organizations/ agencies have rated a security, fund companies are to report the lower rating; if three or more organizations/agencies have rated a security, fund companies are to report the median rating; and in cases where there are more than two organization/agency ratings and a median rating does not exist, fund companies are to use the lower of the two middle ratings.

Please Note: Morningstar, Inc. is not an NRSRO nor does it issue a credit rating on the fund. NRSRO or rating agency ratings can change from time to time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low," "medium," or "high" based on their average credit quality. Funds with a "low" credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; "medium" are those less than "AA-", but greater or equal to "BBB-"; and "high" are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index, which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal-bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases, static breakpoints are used. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-U.S. taxable and non-U.S. domiciled fixed-income funds, static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: more than 3.5 years but less than or equal to 6 years; (iii) Extensive: more than 6 years.

Interest-rate sensitivity for non-U.S. domiciled funds (excluding funds in convertible categories) may be measured with modified duration when effective duration is not available.

P/B Ratio TTM

The Price/Book Ratio (or P/B Ratio) for a fund is the weighted average of the P/B Ratio of the stocks in its portfolio. Book value is the total assets of a company, less total liabilities. The P/B ratio of a company is calculated by dividing the market price of its outstanding stock by the company's book value, and then adjusting for the number of shares outstanding. Stocks with negative book values are excluded from this calculation. It shows approximately how much an investor is paying for a company's assets based on historical valuations.

P/C Ratio TTM

The Price/Cash Flow Ratio (or P/C Ratio) for a fund is the weighted average of the P/C Ratio of the stocks in its portfolio. The P/C Ratio of a stock represents the amount an investor is willing to pay for a dollar generated from a company's operations. It shows the ability of a company to generate cash and acts as a gauge of liquidity and solvency.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

P/E Ratio TTM
The Price/Earnings Ratio (or P/E Ratio) for a fund is the weighted average of the P/E Ratios of the stocks in its portfolio. The P/E Ratio of a stock is the stock's current price divided by the company's trailing 12-month earnings per share. A high P/E Ratio usually indicates the market will pay more to obtain the company's earnings because it believes in the company's abilities to increase their earnings. A low P/E Ratio indicates the market has less confidence that the company's earnings will increase, however value investors may believe such stocks have an overlooked or undervalued potential for appreciation.

Percentile Rank in Category
Percentile Rank is a standardized way of ranking items within a peer group, in this case, funds within the same Morningstar Category. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable for returns (high returns), while higher percentile ranks are generally more favorable for risk measures (low risk).

Performance Quartile
Performance Quartile reflects a fund's Morningstar Rank.

Potential Capital Gains Exposure
Potential Capital Gains Exposure is an estimate of the percent of a fund's assets that represent gains. It measures how much the fund's assets have appreciated, and it can be an indicator of possible future capital gains distributions. A positive potential capital gains exposure value means that the fund's holdings have generally increased in value while a negative value means that the fund has reported losses on its book.

Quarterly Returns
Quarterly Return is calculated applying the same methodology as Total Return except it represents return through each quarter-end.

R-Squared
R-squared is the percentage of a security or portfolio's return movements that are explained by movements in its benchmark index, showing the degree of correlation between the security or portfolio and the benchmark. This figure is helpful in assessing how likely it is that beta and alpha are statistically significant. A value of 1 indicates perfect correlation between the security or portfolio and its benchmark. The lower the R-squared value, the lower the correlation.

Regional Exposure
The regional exposure is a display of the portfolio's assets invested in the regions shown on the report.

Sector Weightings
Super Sectors represent Morningstar's broadest classification of equity sectors by assigning the 11 equity sectors into three classifications. The Cyclical Super Sector includes industries significantly impacted by economic shifts, and the stocks included in these sectors generally have betas greater than 1. The Defensive Super Sector generally includes industries that are relatively immune to economic cycles, and the stocks in these industries generally have betas less than 1. The Sensitive Super Sector includes industries that ebb and flow with the overall economy, but not severely so. Stocks in the Sensitive Super Sector generally have betas that are close to 1.

Share Change
Shares Change represents the number of shares of a stock bought or sold by a fund since the previously reported portfolio of the fund.

Sharpe Ratio
Sharpe Ratio uses standard deviation and excess return (a measure of a security or portfolio's return in excess of the U.S. Treasury three-month Treasury Bill) to determine the reward per unit of risk.

Standard Deviation
Standard deviation is a statistical measure of the volatility of the security or portfolio's returns. The larger the standard deviation, the greater the volatility of return.

Standardized Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experience if the security was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Total Return
Total Return, or "Non Load-Adjusted Return", reflects performance without adjusting for sales charges (if applicable) or the effects of taxation, but it is adjusted to reflect all actual ongoing security expenses and assumes reinvestment of dividends and capital gains. It is the return an investor would have experienced if the fund was held throughout the period. If adjusted for sales charges and the effects of taxation, the performance quoted would be significantly reduced.

Total Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Trailing Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experienced if the fund was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Load-Adjusted Monthly Return is calculated applying the same methodology as Standardized Return, except that it represents return through month-end. As with Standardized Return, it reflects the impact of sales charges and ongoing fund expenses, but not taxation. If adjusted for the effects of taxation, the performance quoted would be significantly different.

Trailing Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Investment Risks

International/Emerging Market Equities: Investing in international securities involves special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Sector Strategies: Portfolios that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

to increased industry-specific risks.

Non-Diversified Strategies: Portfolios that invest a significant percentage of assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

Small Cap Equities: Portfolios that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

Mid Cap Equities: Portfolios that invest in companies with market capitalization below $10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

High-Yield Bonds: Portfolios that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

Tax-Free Municipal Bonds: The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

Bonds: Bonds are subject to interest rate risk. As the prevailing level of bond interest rates rise, the value of bonds already held in a portfolio declines. Portfolios that hold bonds are subject to declines and increases in value due to general changes in interest rates.

HOLDRs: The investor should note that these are narrow industry-focused products that, if the industry is hit by hard times, will lack diversification and possible loss of investment would be likely. These securities can trade at a discount to market price, ownership is of a fractional share interest, the underlying investments may not be representative of the particular industry, the HOLDR might be delisted from the AMEX if the number of underlying companies drops below nine, and the investor may experience trading halts.

Hedge Funds: The investor should note that hedge fund investing involves specialized risks that are dependent upon the type of strategies undertaken by the manager. This can include distressed or event-driven strategies, long/short strategies, using arbitrage (exploiting price inefficiencies), international investing, and use of leverage, options and/or derivatives. Although the goal of hedge fund managers may be to reduce volatility and produce positive absolute return under a variety of market conditions, hedge funds may involve a high degree of risk and are suitable only for investors of substantial financial means who could bear the entire loss of their investment.

Bank Loan/Senior Debt: Bank loans and senior loans are impacted by the risks associated with fixed income in general, including interest rate risk and default risk. They are often non-investment grade; therefore, the risk of default is high. These securities are also relatively illiquid. Managed products that invest in bank loans/senior debt are often highly leveraged, producing a high risk of return volatility.

Exchange Traded Notes (ETNs): ETNs are unsecured debt obligations. Any repayment of notes is subject to the issuer's ability to repay its obligations. ETNs do not typically pay interest.

Leveraged ETFs: Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their fund objectives on a daily basis (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e. 200%, 300%, -200%, or -300% or 2X, 3X, -2X, -3X). Compounding has the ability to affect the performance of the fund to be either greater or less than the index performance multiplied by the multiple stated within the funds objective over a stated time period.

Short Positions: When a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

Long-Short: Due to the strategies used by long-short funds, which may include but are not limited to leverage, short selling, short-term trading, and investing in derivatives, these funds may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

Liquidity Risk: Closed-end fund, ETF, and HOLDR trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

Market Price Risk: The market price of ETFs, HOLDRs, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

Market Risk: The market prices of ETFs and HOLDRs can fluctuate as a result of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

Target-Date Funds: Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximate date when investors expect to begin withdrawing their money. A target-date fund's investment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including at the fund's target date.

High double- and triple-digit returns: High double- and triple-digit returns were the result of extremely favorable market conditions, which may not continue to be the case. High returns for short time periods must not be a major factor when making investment decisions.

Benchmark Disclosure

BBgBarc US Agg Bond TR USD
This index is composed of the BarCap Government/Credit Index, the Mortgage-Backed Securities Index, and the Asset-Backed Securities Index. The returns we publish for the index are total returns, which includes the daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core US Aggregate Bond ETF.

MSCI EAFE NR USD
This Europe, Australasia, and Far East index is a market-capitalization-weighted index of 21 non-U.S., industrialized country indexes.

This disclosure applies to all MSCI indices: Certain information included herein is derived by Morningstar in part from MSCI's Index Constituents (the "Index

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Data"). However, MSCI has not reviewed any information contained herein and does not endorse or express any opinion such information or analysis. MSCI does not make any express or implied warranties, representations or guarantees concerning the Index Data or any information or data derived therefrom, and in no event will MSCI have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of this information.

S&P 500 TR USD

A market capitalization-weighted index composed of the 500 most widely held stocks whose assets and/or revenues are based in the US; it's often used as a proxy for the U.S. stock market. TR (Total Return) indexes include daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: SPDR® S&P 500 ETF Trust.

USTREAS T-Bill Auction Ave 3 Mon

Three-month T-bills are government-backed, short-term investments considered to be risk-free and as good as cash because the maturity is only three months. Morningstar collects yields on the T-bill on a weekly basis from the Wall Street Journal.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

JPMorgan U.S. Government Money Market Fund Capital Shares (OGVXX)

Firm Background*

JPMorgan Chase & Co. (JPMorgan Chase or JPM) was founded in New York in 1871 as Drexel, Morgan & Co. by J. Pierpont Morgan and Anthony Drexel. JPMorgan Chase is an amalgamation of more than 1,200 predecessor institutions including: The Chase Manhattan Corp. with which JPM merged in 2000; Bank One Corporation which merged with JPM in 2004; and The Bear Stearns Companies Inc., which JPM acquired in 2008. JPMorgan Chase, which is listed on the New York Stock Exchange (Ticker: JPM), is segmented into the following business lines: J.P. Morgan Corporate & Investment Bank, Asset Management, Commercial Banking, and Chase Consumer & Community Banking.

J.P. Morgan Asset Management, Inc. (JPMAM) is the brand name for the asset management business of JPMorgan Chase. JPMAM is segmented into Global Wealth Management (The Private Bank, Private Wealth Management and J.P. Morgan Securities) and Global Investment Management (Institutional, Retail, Defined Contribution, Endowments and Foundations, and Insurance).

J.P. Morgan Investment Management, Inc. (JPMIM or the Firm) was incorporated in February 1984. The Firm is an indirect, wholly-owned subsidiary of JPMorgan Chase and operates as an SEC-registered investment adviser under JPMAM. JPMIM has autonomous investment platforms segmented into three asset classes: its fixed income platforms (opportunistic, global top/down-bottom/up, and global Cash), its equity platform (quantitative and fundamental capabilities spanning regions, styles and market capitalizations), and the alternative platform (hedge funds, real estate & infrastructure, and private equity). JPMIM's solutions team, the Global Multi-Asset Group, also oversees a portion of the Firm's assets.

Organization: Satisfactory*

JPMAM is an amalgamation of internally developed and externally acquired investment teams. The Firm provides plentiful support resources to strategies in terms of capital, technology, and investment and client service personnel. It is also diversified by asset class as well as by client base. The track record of business leadership and strategic decisions at the various divisions within JPMAM is mixed. Regarding equity and alternatives strategies, the Firm has a history of successfully integrating acquired teams and rationalizing products, launching innovative products, and allowing investment teams to maintain a significant level of autonomy. Also positive, leadership compensates portfolio managers by fund performance rather than asset levels, and allows portfolio managers to close strategies that reach capacity. Conversely, we are concerned with a series of meaningful changes within the fixed income division in recent years. Most notably, JPMAM has integrated its previously autonomous and philosophically different fixed income platforms (Columbus and New York) under one investment leadership, paving the way for further functional integrations, possibly in research and trading. We believe these changes may compromise the very distinct investment approach of the Columbus-based team. They could also erode the culture and stability of that team.

Strategy**

The JPMorgan U.S. Government Money Market Fund seeks high current income with liquidity and stability of principal.

The Fund invests exclusively in high-quality, short-term securities that are issued or guaranteed by the U.S. government or by U.S. government agencies and instrumentalities.

Some of the securities purchased by the Fund may be subject to repurchase agreements.

The Fund will comply with SEC rules applicable to all money market funds, including Rule 2a-7 under the Investment Company Act of 1940.

Summary

This fund has not been rated by Morningstar, Inc.

Performance

This fund has not been rated by Morningstar, Inc.

Price

This fund has not been rated by Morningstar, Inc.

Process

This fund has not been rated by Morningstar, Inc.

People

This fund has not been rated by Morningstar, Inc.

* Source: BNY Mellon Manager Research Group, as of July 2019
** Source: J.P. Morgan Asset Management, as of 6/30/2020

NOT FDIC INSURED | NO BANK GUARANTEE | MAY LOSE VALUE

JPMorgan U.S. Government Money Market Fund

Data as of June 30, 2020

Share Class: **Capital (OGVXX)**

RATINGS

S&P Rating**	AAAm
Moody's Rating**	Aaa-mf
Fitch Rating**	AAAmmf

FUND OBJECTIVE AND STRATEGY

Investment objective

The Fund seeks high current income with liquidity and stability of principal.

Permissible investments

- The Fund invests exclusively in high-quality, short-term securities that are issued or guaranteed by the U.S. government or by U.S. government agencies and instrumentalities.
- Some of the securities purchased by the Fund may be subject to repurchase agreements.
- The Fund will comply with SEC rules applicable to all money market funds, including Rule 2a-7 under the Investment Company Act of 1940.

Fund highlights

- The Fund is designed for temporary or medium-term cash investments, seasonal operating cash, automated cash sweeps and the liquidity components of investment portfolios.
- The Fund aims to preserve capital, maintain liquidity and produce a competitive yield.

FUND INFORMATION

Annual expenses[1]	
Gross expenses (%)	0.20
Net expense (%)	0.18
Fund basics	
Fund inception date	6/14/1993
Class inception date	6/14/1993
Fund number	3164
CUSIP	4812C0670
Fund assets (in billions)	$195.10
Investment minimum	$50M
Dealing deadline	5:00 PM EST
Daily liquid assets (%)	55.04
Weekly liquid assets (%)	65.12

PERFORMANCE

Performance (%) - 30 day average yield

Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
2.24	2.02	1.99	1.75	1.56	1.49	1.48	1.48	0.79	0.27	0.15	0.10

As of June 30, 2020, the 7-day SEC yield was 0.10% and 7-day unsubsidized SEC yield was 0.10%.

The performance quoted is past performance and is not a guarantee of future results. Current performance may be higher or lower than the performance data shown. For performance current to the most recent month-end please call 1-800-766-7722 (institutional investors) or 1-800-480-4111 (retail investors).

COMPOSITION

Weighted average maturity in days

Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
20	22	28	38	42	42	34	27	30	28	32	34

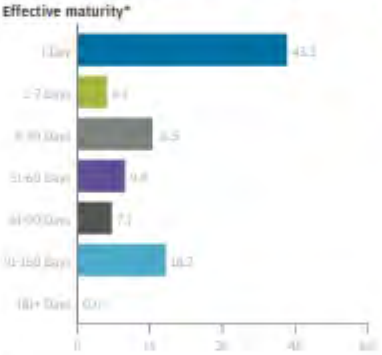
Weighted Average Maturity: The calculation takes into account the period remaining until the date on which, in accordance with the terms of the security, the principal amount must unconditionally be paid, or in the case of a security called for redemption, the date on which the redemption payment must be made and may utilize the interest rate reset date for variable or floating rate securities.

Weighted average life in days

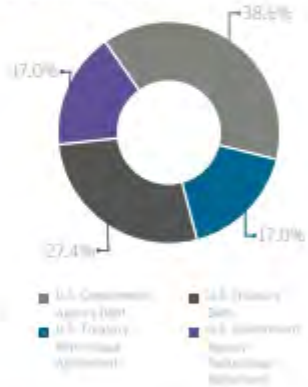
Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
107	117	113	117	114	110	108	91	101	97	111	111

Weighted Average Life: The calculation takes into account the period remaining until the date on which, in accordance with the terms of the security, the principal amount must unconditionally be paid, or in the case of a security called for redemption, the date on which the redemption payment must be made.

Effective maturity*



Sector breakdown (%)*



*Due to rounding, values may not total 100%.

You could lose money by investing in the Fund. Although the Fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. An investment in the Fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Fund's sponsor has no legal obligation to provide financial support to the Fund, and you should not expect that the sponsor will provide financial support to the Fund at any time. Performance may reflect the waiver of a portion of the fund's fees and/or reimbursement of certain expenses. If fees had not been waived and certain expenses were not reimbursed the performance would have been lower.

PLEASE REFER TO THE BACK FOR IMPORTANT DISCLOSURE INFORMATION

J.P.Morgan
Asset Management

NOT FDIC INSURED | NO BANK GUARANTEE | MAY LOSE VALUE

Must be preceded or accompanied by a prospectus.

Call 1-800-766-7722 (institutional investors) or 1-800-480-4111 (retail investors) for a fund prospectus. You can also visit us online at www.jpmorganfunds.com. Investors should carefully consider the investment objectives and risk as well as charges and expenses of the mutual fund before investing. The prospectus contains this and other information about the mutual fund. Read the prospectus carefully before investing.

RATINGS:

** Moody's defines Money Market Funds with an 'Aaa-mf' rating as having a very strong ability to meet the dual objectives of providing liquidity and preserving capital. S&P defines Money Market Funds that have an 'AAAm' rating as demonstrating extremely strong capacity to maintain principal stability and to limit exposure to credit risk. Fitch defines Money Market Funds with an 'AAAmmf' rating as having extremely strong capacity to achieve fund's investment objective of preserving principal and providing shareholder liquidity through limiting credit, market and liquidity risk. The ratings do not eliminate the risks associated with investing in the Fund. For information on rating methodologies, please visit the agency websites at http://www.moodys.com/; http://www.standardandpoors.com/ratings/en/us/ and http://www.fitchratings.com.

ANNUAL EXPENSES:

[1]The Fund's adviser and/or its affiliates have contractually agreed to waive fees and/or reimburse expenses to the extent Total Annual Fund Operating Expenses (excluding acquired fund fees and expenses, dividend and interest expenses related to short sales, interest, taxes, expenses related to litigation and potential litigation and extraordinary expenses) exceed 0.18% of the average daily net assets. The Fund may invest in one or more money market funds advised by the adviser or its affiliates (affiliated money market funds). The Fund's adviser has contractually agreed to waive fees and/or reimburse expenses in an amount sufficient to offset the fees and expenses of the affiliated money market funds incurred by the Fund because of the Fund's investment in such money market funds. This waiver is in effect through 6/30/2021, at which time the adviser and/or its affiliates will determine whether to renew or revise it. The difference between net and gross fees includes all applicable fee waivers and expense reimbursements.

©2020, American Bankers Association, CUSIP Database provided by the Standard & Poor's CUSIP Service Bureau, a division of The McGraw-Hill Companies, Inc. All rights reserved.

J.P. Morgan Asset Management is the brand name for the asset management business of JPMorgan Chase & Co and its affiliates worldwide.

This document is a general communication being provided for informational purposes only. It is educational in nature and not designed to be recommendation for any specific investment product, strategy, plan feature or other purposes. By receiving this communication you agree with the intended purpose described above. Any examples used in this material are generic, hypothetical and for illustration purposes only. None of J.P. Morgan Asset Management, its affiliates or representatives is suggesting that the recipient or any other person take a specific course of action or any action at all. Communications such as this are not impartial and are provided in connection with the advertising and marketing of products and services. Prior to making any investment or financial decisions, an investor should seek individualized advice from personal financial, legal, tax and other professionals that take into account all of the particular facts and circumstances of an investor's own situation.

J.P. Morgan Funds are distributed by JPMorgan Distribution Services, Inc., which is an affiliate of JPMorgan Chase & Co. Affiliates of JPMorgan Chase & Co. receive fees for providing various services to the funds. JPMorgan Distribution Services, Inc. is a member of FINRA.

If you are a person with a disability and need additional support in viewing the material, please call us at 1-800-343-1113 for assistance.

©JPMorgan Chase & Co., July 2020

FS-USGMM-CAP-0620

J.P.Morgan
Asset Management

Schwab Total Stock Market Index Fund® (SWTSX)

Firm Background*

Charles Schwab Investment Management, Inc., (CSIM or the Firm), was founded in 1989 as a wholly-owned subsidiary of The Charles Schwab Corporation (Schwab), a publicly held company. Initially founded to serve as the investment adviser to the Schwab Money Funds, CSIM now provides advisory services to proprietary mutual funds, separately managed accounts participating in wrap programs, exchange-traded funds, and collective trust funds. CSIM is headquartered in San Francisco, CA, with operations also residing in Colorado and California. The Firm has more than 500 employees, including approximately 80 investment professionals. Jonathan de St. Paer currently serves as the Firm's President (since October 1, 2018) and CEO (since April 1, 2019). The majority of CSIM's asset base resides in passive index (52%) and money market (38%) strategies. The remainder is in active and target date/asset allocation strategies.

Schwab was founded in 1971 by Charles Schwab as a full service brokerage firm. Since its founding Schwab has expanded its services to include investment management for retail and institutional clients, as well as traditional banking and lending.

Organization: Satisfactory*

In our view, CSIM has grown into one of the larger asset management companies in the U.S. and is a substantial provider of retail index funds, money market funds, and exchange traded funds. While there have been changes to the Firm's senior management team since its founding, we believe the transitioning of leadership has been thoughtfully executed. Further, we believe the Firm has effectively expanded its product base over time and placed adequate resources to support its strategies and business segments. We believe the Firm's client base is diverse, as its products have gained acceptance across both retail and institutional client segments.

Strategy**

The investment seeks to track the total return of the entire U.S. stock market, as measured by the Dow Jones U.S. Total Stock Market Index℠. The fund generally invests at least 80% of its net assets (including, for this purpose, any borrowings for investment purposes) in these stocks; typically, the actual percentage is considerably higher. It generally gives the same weight to a given stock as the index does. The fund may invest in derivatives, principally futures contracts, and lend its securities to minimize the gap in performance that naturally exists between any index fund and its corresponding index.

Summary***

It effectively replicates the composition of the total U.S. stock market, which has been hard to beat over the long term. The fund's low fee and broad diversification set it up for success. It earns a Morningstar Analyst Rating of Gold.

The fund tracks the Dow Jones U.S. Total Stock Market Index, which includes nearly all U.S. stocks and weights them by market capitalization. Market-cap weighting pulls the portfolio toward the largest stocks, so the fund lands in the large-blend Morningstar Category. This broad market-cap-weighted index accurately reflects the composition of the U.S. large-cap market and harnesses the market's collective wisdom. Compared with funds that target specific segments of the market, this fund isn't prone to forced buying or selling that is the result of stocks entering or exiting a market segment. This should mitigate transaction costs and turnover, which is among the lowest in the large-blend category.

The market doesn't always get prices right. Over short periods, investors may overreact and either drive prices too high or low. Market-cap weighting will increase or decrease exposure to stocks accordingly. This can at times lead to stock- and sector-level concentration. That said, the fund's broad diversification and low-cost advantage far outweigh these minor disadvantages.

The fund is always fully invested, which should help it more fully capture the market's returns over the long term than most of its category peers but could expose it to greater losses during market downturns. Unlike many of its active peers, this portfolio excludes stocks listed outside the U.S. This should help the fund's category-relative performance when U.S. stocks outperform foreign stocks but hurt when they lag.

The fund charges 0.03%, which is its greatest strength. It builds on this cost advantage with low turnover, which helps mitigate transaction costs. Long-term investors will likely come out ahead with this fund compared with more expensive options.

Performance***

Over the trailing 15 years through February 2020, the fund beat the category average by 152 basis points annualized, with slightly higher risk. Much of this outperformance can be attributed to the fund's cost advantage, lower-than-average cash drag, and more favorable stock exposure in the healthcare, financial services, and consumer defensive sectors compared with the category average.

The fund ranked in the top quartile over the trailing 10 and 15 years through February 2020, consistently outperforming the category average while exhibiting slightly higher volatility. The fund also tended to hold up as well as most of its peers during downturns since inception, despite its lower-than-average cash balance.

This portfolio is always fully invested, which helps its category-relative performance during bull markets but could hurt during bear markets. Most actively managed funds in the category keep larger cash balances on hand to meet redemptions.

The fund has effectively tracked its index. Over the trailing five-year periods through February 2020, the fund trailed the Dow Jones U.S. Total Stock Market Index by 3 basis points, the amount of its expense ratio.

Price***

It's critical to evaluate expenses, as they come directly out of returns. The share class on this report levies a fee that ranks in its Morningstar category's cheapest quintile. Based on our assessment of the fund's People, Process and Parent pillars in the context of these fees, we think this share class will be able to deliver positive alpha relative to the category benchmark index, explaining its Morningstar Analyst Rating of Gold.

Process: High***

The fund represents the entire investable U.S. equity market, effectively harnessing the market's collective wisdom and diversifying risk. It earns a High Process rating.

The fund tracks the Dow Jones U.S. Total Stock Market Index, which holds nearly every U.S. stock listed on a major U.S. exchange. This gives the fund lower turnover than index funds that track specific size segments of the market, as it is not subject to forced trade when holdings migrate up and down the market-cap ladder. By sampling among the smallest stocks in the index, the fund can avoid trading the least-liquid names, which keeps transaction costs down. However, this fund's large asset base allows it to replicate the

index more completely than other total market funds. The fund holds about 2,900 out of 3,700 stocks in the index.

The portfolio managers reinvest dividends and use derivatives to equitize cash and keep pace with the benchmark. The fund has historically used securities lending to generate additional income to offset expenses.

The fund mirrors the composition of the large-cap market, allowing the market to dictate its stock and sector weightings. This allows the fund to harness the market's collective view about the relative value of each stock and keeps turnover low, which is among the lowest in the category.

The fund’s top 10 holdings account for about 20% of assets and the largest holding accounts for 4% of assets, which effectively diversifies firm-specific risk.

Although it has a smaller market cap orientation than the large-blend category average, this fund is representative of this category. Currently, the fund is slightly underweight in financial services and overweight in technology compared with the category average.

Large companies tend to have greater competitive advantages compared to smaller companies and this is evident here as close to 76% of the portfolio is invested in firms with wide or narrow moats. On average, the fund’s constituents generate 37% of their revenue overseas.

People: Average***

The team is competent and experienced, but many of its members haven't worked together long. Additionally, its supporting infrastructure does not stand out, so it earns an Average People Pillar rating.

Schwab’s passive equity funds follow a team approach under the direction of Chris Bliss, who leads the firm's equity index portfolio management team and is a named manager on this fund. Bliss joined Schwab in September 2016 after spending 12 years at BlackRock. Ferian Juwono and Sabya Sinha are also listed portfolio managers on the fund. Juwono joined Schwab in 2010 and became a named comanager on the fund in 2011. He previously spent three years as an equity index portfolio manager at Barclays Global Investors. Sinha joined the firm in 2015 from F-Squared investments, where he worked in product development. Prior to that, Sinha served as an index portfolio manager at IndexIQ from 2011 to 2014, and as a portfolio manager at Columbia Management from 2006 to 2010.

These three managers are listed on most of Schwab's U.S. equity index portfolios. None of the listed portfolio managers are currently invested in this fund, but managers' incentives are aligned with shareholders' through a bonus structure that rewards managers based on index-relative performance and compliance with risk oversight.

* Source: BNY Mellon Manager Research Group, as of September 2019
** Source: Charles Schwab Investment Management, Inc. (CSIM), as of 6/30/2020
*** Source: Morningstar, Inc., as of 3/19/2020

Release date 07-31-2020 Page 1 of 11

Schwab Total Stock Market Index (USD)

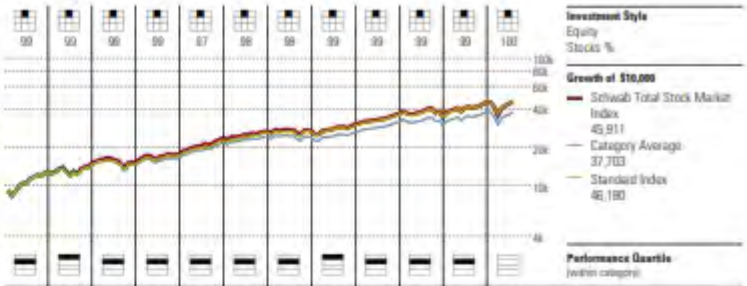
Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Gold 03-19-2020	★★★★ 1,226 US Fund Large Blend	S&P 500 TR USD	Russell 1000 TR USD	US Fund Large Blend

Performance 07-31-2020

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2018	-0.59	3.87	7.09	-14.36	-5.30
2019	14.04	4.08	1.12	9.04	30.88
2020	-20.98	22.07	—	—	1.89

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	10.75	11.27	10.80	13.50	6.87
Std 06-30-2020	6.36	—	9.95	13.65	6.62
Total Return	10.75	11.27	10.80	13.50	6.87
+/- Std Index	-1.21	-0.75	-0.69	-0.34	—
+/- Cat Index	-1.29	-0.76	-0.52	-0.35	—
% Rank Cat	38	36	31	22	
No. in Cat	1380	1226	1053	809	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	07-20	History
	19.75	22.75	22.62	25.76	33.67	36.98	36.11	39.74	47.25	43.58	55.96	57.02	NAV/Price
	28.29	17.23	1.32	16.30	33.36	12.38	0.41	12.58	21.06	-5.30	30.88	1.89	Total Return %
	1.83	2.16	-0.79	0.30	0.98	-1.29	-0.98	0.62	-0.77	-0.92	-0.60	-0.49	+/- Standard Index
	-0.14	1.13	-0.18	-0.12	0.25	-0.84	-0.51	0.53	-0.63	-0.52	-0.54	-0.99	+/- Category Index
	42	12	28	29	32	39	37	21	48	44	38	—	% Rank Cat
	2027	2010	1786	1686	1559	1568	1606	1409	1396	1402	1387	1406	No. of Funds in Cat

Performance Quartile (within category)

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 877-824-5615 or visit www.schwab.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.03
12b1 Expense %	NA
Net Expense Ratio %	**0.03**
Gross Expense Ratio %	**0.03**

Risk and Return Profile

	3 Yr 1226 funds	5 Yr 1053 funds	10 Yr 809 funds
Morningstar Rating™	3★	3★	4★
Morningstar Risk	+Avg	+Avg	Avg
Morningstar Return	Avg	+Avg	+Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	17.92	15.51	13.89
Mean	11.27	10.80	13.50
Sharpe Ratio	0.59	0.67	0.94

MPT Statistics	Standard Index	Best Fit Index Russell 3000 TR USD
Alpha	-1.01	-0.12
Beta	1.04	1.00
R-Squared	98.59	100.00
12-Month Yield		—
Potential Cap Gains Exp		39.78%

Portfolio Analysis 06-30-2020

Asset Allocation %	Net %	Long %	Short %
Cash	0.07	0.07	0.00
US Stocks	98.79	98.79	0.00
Non-US Stocks	1.13	1.13	0.00
Bonds	0.00	0.00	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style

Value	Blend	Growth	
	■		Large
			Mid
			Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	22.0	0.88	0.98
P/C Ratio TTM	13.4	0.92	0.91
P/B Ratio TTM	3.1	0.89	0.87
Geo Avg Mkt Cap $mil	82630	0.55	0.42

Fixed-Income Style

Ltd	Mod	Ext	
			High
			Med
			Low

Avg Eff Maturity	—
Avg Eff Duration	—
Avg Wtd Coupon	—
Avg Wtd Price	—

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	98.9	1.00
Greater Europe	0.9	0.91
Greater Asia	0.2	0.50

Share Chg since 05-2020	Share Amount	Holdings: 3,117 Total Stocks , 0 Total Fixed-Income, 3% Turnover Ratio	Net Assets %
⊖	3 mil	Microsoft Corp	5.05
⊖	1 mil	Apple Inc	4.87
⊕	147,981	Amazon.com Inc	3.78
⊕	848,997	Facebook Inc A	1.79
⊕	105,970	Alphabet Inc A	1.39
⊖	103,290	Alphabet Inc Class C	1.35
⊕	929,974	Johnson & Johnson	1.21
⊕	686,596	Berkshire Hathaway Inc Class B	1.14
⊖	595,482	Visa Inc Class A	1.07
⊖	874,341	Procter & Gamble Co	0.97
⊖	1 mil	JPMorgan Chase & Co	0.94
⊕	334,703	UnitedHealth Group Inc	0.91
⊖	379,565	The Home Depot Inc	0.88
⊖	311,908	Mastercard Inc A	0.85
⊖	1 mil	Intel Corp	0.83

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**38.4**	**1.05**
Basic Materials	2.3	1.06
Consumer Cyclical	11.1	1.01
Financial Services	13.2	1.01
Real Estate	3.9	1.38
Sensitive	**45.0**	**0.98**
Communication Services	9.9	0.91
Energy	2.7	1.05
Industrials	8.9	1.08
Technology	23.5	0.98
Defensive	**24.6**	**0.97**
Consumer Defensive	6.7	0.90
Healthcare	14.9	1.02
Utilities	2.9	0.83

Operations

Family:	Schwab Funds	Base Currency:	USD	Purchase Constraints:	—
Manager:	Multiple	Ticker:	SWTSX	Incept:	06-01-1999
Tenure:	7.5 Years	ISIN:	US808509756	Type:	MF
Objective:	Growth and Income	Minimum Initial Purchase:	$0	Total Assets:	$11,568.50 mil

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Standardized and Tax Adjusted Returns Disclosure Statement

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end please visit http://advisor.morningstar.com/familyinfo.asp.

Standardized Returns assume reinvestment of dividends and capital gains. They depict performance without adjusting for the effects of taxation, but are adjusted to reflect sales charges and ongoing fund expenses.

If adjusted for taxation, the performance quoted would be significantly reduced. For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges. The maximum redemption fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase.

After-tax returns are calculated using the highest individual federal marginal income tax rates, and do not reflect the impact of state and local taxes. Actual after-tax returns depend on the investor's tax situation and may differ from those shown. The after-tax returns shown are not relevant to investors who hold their fund shares through tax-deferred arrangements such as 401(k) plans or an IRA. After-tax returns exclude the effects of either the alternative minimum tax or phase-out of certain tax credits. Any taxes due are as of the time the distributions are made, and the taxable amount and tax character of each distribution are as specified by the fund on the dividend declaration date. Due to foreign tax credits or realized capital losses, after-tax returns may be greater than before-tax returns. After-tax returns for exchange-traded funds are based on net asset value.

Money Market Fund Disclosures

If money market fund(s) are included in the Standardized Returns table below, each money market fund's name will be followed by a superscripted letter that links it to the applicable disclosure below:

Institutional Money Market Funds (designated by an "S"):

You could lose money by investing in the fund. Because the share price of the fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "L") and

Retail Money Market Funds (designated by an "L"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen not to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "N"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Annualized returns 06-30-2020

Standardized Returns (%)	7-day Yield Subsidized as of date	7-day Yield Unsubsidized as of date	YTD	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
Schwab Total Stock Market Index	—	—	6.38	9.95	13.65	8.62	06-01-1999	NA	NA	0.03	0.03	NA
BBgBarc US Agg Bond TR USD			**8.74**	**4.30**	**3.82**	**—**	**01-03-1990**					
MSCI EAFE NR USD			**-5.13**	**2.05**	**5.73**	**—**	**03-31-1986**					
Russell 1000 TR USD			**7.48**	**10.47**	**13.97**	**—**	**12-31-1978**					
Russell 3000 TR USD			**6.53**	**10.03**	**13.72**	**—**	**12-31-1978**					
S&P 500 TR USD			**7.51**	**10.73**	**13.99**	**—**	**09-11-1989**					

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be based from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or summary and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Release date 07-31-2020 Page 3 of 11

Annualized returns 06-30-2020

Standardized Returns (%)	7-day Yield Subsidized *as of date*	7-day Yield Unsubsidized *as of date*	1Yr	5Yr	10Yr	Since Inception	Inception Date	**Max Front Load %**	**Max Back Load %**	**Net Exp Ratio %**	**Gross Exp Ratio %**	**Max Redemption %**
USTREAS T-Bill Auction Ave 3 Mon			**1.26**	**1.17**	**0.62**	—	**02-28-1941**					

Return after Tax (%)	On Distribution					On Distribution and Sales of Shares			
	1Yr	5Yr	10Yr	Since Inception	Inception Date	1Yr	5Yr	10Yr	Since Inception
Schwab Total Stock Market Index	5.58	8.98	12.76	5.97	06-01-1999	3.83	7.41	11.00	5.21

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Mutual Fund Detail Report Disclosure Statement

The Mutual Fund Detail Report is supplemental sales literature, and therefore must be preceded or accompanied by the mutual fund's current prospectus or an equivalent statement. Please read this information carefully. In all cases, this disclosure statement should accompany the Mutual Fund Detail Report. Morningstar is not itself a FINRA-member firm.

All data presented is based on the most recent information available to Morningstar as of the release date and may or may not be an accurate reflection of current data for securities included in the fund's portfolio. There is no assurance that the data will remain the same.

Unless otherwise specified, the definition of "funds" used throughout this Disclosure Statement includes closed-end funds, exchange-traded funds, grantor trusts, index mutual funds, open-ended mutual funds, and unit investment trusts. It does not include exchange-traded notes or exchange-traded commodities.

Prior to 2016, Morningstar's methodology evaluated open-end mutual funds and exchange-traded funds as separate groups. Each group contained a subset of the current investments included in our current comparative analysis. In this report, historical data presented on a calendar-year basis and trailing periods ending at the most-recent month-end reflect the updated methodology.

Risk measures (such as alpha, beta, r-squared, standard deviation, mean, or Sharpe ratio) are calculated for securities or portfolios that have at least a three-year history.

Most Morningstar rankings do not include any adjustment for one-time sales charges, or loads. Morningstar does publish load-adjusted returns, and ranks such returns within a Morningstar Category in certain reports. The total returns for ETFs and fund share classes without one-time loads are equal to Morningstar's calculation of load-adjusted returns. Share classes that are subject to one-time loads relating to advice or sales commissions have their returns adjusted as part of the load-adjusted return calculation to reflect those loads.

Comparison of Fund Types

Funds, including closed-end funds, exchange-traded funds (ETFs), money market funds, open-end funds, and unit investment trusts (UITs), have many similarities, but also many important differences. In general, publically-offered funds are investment companies registered with the Securities and Exchange Commission under the Investment Company Act of 1940, as amended. Funds pool money from their investors and manage it according to an investment strategy or objective, which can vary greatly from fund to fund. Funds have the ability to offer diversification and professional management, but also involve risk, including the loss of principal.

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. A closed-end mutual fund's expense ratio is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Closed-end funds may also have 12b-1 fees. Income distributions and capital gains of the closed-end fund are subject to income tax, if held in a taxable account.

An ETF is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, an ETF can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. ETFs are not actively managed, so their value may be affected by a general decline in the U.S. market segments relating to their underlying indexes. Similarly, an imperfect match between an ETF's holdings and those of its underlying index may cause its performance to vary from that of its underlying index. The expense ratio of an ETF is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. ETFs do not have 12b-1 fees or sales loads. Capital gains from funds held in a taxable account are subject to income tax. In many, but not all cases, ETFs are generally considered to be more tax-efficient when compared to similarly invested mutual funds.

Holding company depository receipts (HOLDRs) are similar to ETFs, but they focus on narrow industry groups. HOLDRs initially own 20 stocks, which are unmanaged, and can become more concentrated due to mergers, or the disparate performance of their holdings. HOLDRs can only be bought in 100-share increments. Investors may exchange shares of a HOLDR for its underlying stocks at any time.

A money-market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and are not guaranteed by a bank or other financial institution.

An open-end fund is an investment company that issues shares on a continuous basis. Shares can be purchased from the open-end mutual fund itself, or through an intermediary, but cannot be traded on a secondary market, such as the New York Stock Exchange. Investors pay the open-end mutual fund's current net asset value plus any initial sales loads. Net asset value is calculated daily, at the close of business. Open-end mutual fund shares can be redeemed, or sold back to the fund or intermediary, at their current net asset value minus any deferred sales loads or redemption fees. The expense ratio for an open-end mutual fund is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Open-end funds may also have 12b-1 fees. Income distributions and capital gains of the open-end fund are subject to income tax, if held in a taxable account.

A unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units. A one-time initial sales charge is deducted from an investment made into the trust. UIT investors may also pay creation and development fees, organization costs, and/or trustee and operation expenses. UIT units may be redeemed by the sponsor at their net

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

asset value minus a deferred sales charge, and sold to other investors. UITs have set termination dates, at which point the underlying securities are sold and the sales proceeds are paid to the investor. Typically, a UIT investment is rolled over into successive trusts as part of a long-term strategy. A rollover fee may be charged for the exercise of rollover purchases. There are tax consequences associated with rolling over an investment from one trust to the next.

Performance

The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares, when sold, may be worth more or less than the original investment. Fund portfolio statistics change over time. Funds are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution.

Morningstar calculates after-tax returns using the highest applicable federal marginal income tax rate plus the investment income tax and Medicare surcharge. As of 2018, this rate is 37% plus 3.8% investment income plus 0.9% Medicare surcharge, or 41.7%. This rate changes periodically in accordance with changes in federal law.

Pre-Inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the inception of the share class of the fund shown in this report ("Report Share Class"). If pre-inception returns are shown, a performance stream consisting of the Report Share Class and older share class(es) is created. Morningstar adjusts pre-inception returns downward to reflect higher expenses in the Report Share Class, we do not hypothetically adjust returns upwards for lower expenses. For more information regarding calculation of pre-inception returns please see the Morningstar Extended Performance Methodology.

When pre-inception data is presented in the report, the header at the top of the report will indicate this. In addition, the pre-inception data included in the report will appear in italics.

While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of newer share classes of a fund, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. For example, the fee structures of a retail share class will vary from that of an institutional share class, as retail shares tend to have higher operating expenses and sales charges. These adjusted historical returns are not actual returns. The underlying investments in the share classes used to calculate the pre-performance string will likely vary from the underlying investments held in the fund after inception. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the fund itself.

12b1 Expense %

A 12b-1 fee is a fee used to pay for a mutual fund's distribution costs. It is often used as a commission to brokers for selling the fund. The amount of the fee is taken from a fund's returns.

Alpha

Alpha is a measure of the difference between a security or portfolio's actual returns and its expected performance, given its level of risk (as measured by beta.) Alpha is often seen as a measure of the value added or subtracted by a portfolio manager.

Asset Allocation

Asset Allocation reflects asset class weightings of the portfolio. The "Other" category includes security types that are not neatly classified in the other asset classes, such as convertible bonds and preferred stocks, or cannot be classified by Morningstar as a result of missing data. Morningstar may display asset allocation data in several ways, including tables or pie charts. In addition, Morningstar may compare the asset class breakdown of the fund against its three-year average, category average, and/or index proxy.

Asset allocations shown in tables may include a breakdown among the long, short, and net (long positions net of short) positions. These statistics summarize what the fund's managers are buying and how they are positioning the fund's portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the fund's exposure and risk. Long positions involve buying the security outright and selling it later, with the hope the security's price rises over time. Short positions are taken with the hope of benefitting from anticipated price declines. The investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience a loss buying it at a higher price than the sale price.

Most fund portfolios hold fairly conventional securities, such as long positions in equities and bonds. Morningstar may generate a colored pie chart for these portfolios. Other portfolios use other investment strategies or securities, such as short positions or derivatives, in an attempt to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while other have unique return and risk characteristics. Portfolios that incorporate investment strategies resulting in short positions or portfolio with relatively exotic derivative positions often report data to Morningstar that does not meet the parameters of the calculation underlying a pie chart's generation. Because of the nature of how these securities are reported to Morningstar, we may not always get complete portfolio information to report asset allocation. Morningstar, at its discretion, may determine if unidentified characteristics of fund holdings are material. Asset allocation and other breakdowns may be rescaled accordingly so that percentages total to 100 percent. (Morningstar used discretion to determine if unidentified characteristics of fund holdings are material, pie charts and other breakdowns may rescale identified characteristics to 100% for more intuitive presentation.)

Note that all other portfolio statistics presented in this report are based on the long (or long rescaled) holdings of the fund only.

Average Effective Duration

Duration is a time measure of a bond's interest-rate sensitivity. Average effective duration is a weighted average of the duration of the fixed-income securities within a portfolio.

Average Effective Maturity

Average Effective Maturity is a weighted average of the maturities of all bonds in a portfolio.

Average Weighted Coupon

A coupon is the fixed annual percentage paid out on a bond. The average weighted coupon is the asset-weighted coupon of each bond in the portfolio.

Average Weighted Price

Average Weighted Price is the asset-weighted price of bonds held in a portfolio, expressed as a percentage of par (face) value. This number reveals if the portfolio favors bonds selling at prices above or below par value (premium or discount securities respectively.)

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Best Fit Index
Alpha, beta, and R-squared statistics are presented for a broad market index and a "best fit" index. The Best Fit Index identified in this report was determined by Morningstar by calculating R-squared for the fund against approximately 100 indexes tracked by Morningstar. The index representing the highest R-squared is identified as the best fit index. The best fit index may not be the fund's benchmark, nor does it necessarily contain the types of securities that may be held by the fund or portfolio.

Beta
Beta is a measure of a security or portfolio's sensitivity to market movements (proxied using an index.) A beta of greater than 1 indicates more volatility than the market, and a beta of less than 1 indicates less volatility than the market.

Credit Quality Breakdown
Credit Quality breakdowns are shown for corporate-bond holdings in the fund's portfolio and depict the quality of bonds in the underlying portfolio. It shows the percentage of fixed-income securities that fall within each credit-quality rating as assigned by a Nationally Recognized Statistical Rating Organization (NRSRO). Bonds not rated by an NRSRO are included in the Other/Not-Classified category.

Deferred Load %
The back-end sales charge or deferred load is imposed when an investor redeems shares of a fund. The percentage of the load charged generally declines the longer the fund's shares are held by the investor. This charge, coupled with 12b-1 fees, commonly serves as an alternative to a traditional front-end load.

Expense Ratio %
The expense ratio is the annual fee that all funds charge their shareholders. It expresses the percentage of assets deducted each fiscal year for fund expenses, including 12b-1 fees, management fees, administrative fees, operating costs, and all other asset-based costs incurred by the fund. Portfolio transaction fees, or brokerage costs, as well as front-end or deferred sales charges are not included in the expense ratio. The expense ratio, which is deducted from the fund's average net assets, is accrued on a daily basis. The gross expense ratio, in contrast to the net expense ratio, does not reflect any fee waivers in effect during the time period.

Front-end Load %
The initial sales charge or front-end load is a deduction made from each investment in the fund and is generally based on the amount of the investment.

Geometric Average Market Capitalization
Geometric Average Market Capitalization is a measure of the size of the companies in which a portfolio invests.

Growth of 10,000
For funds, this graph compares the growth of an investment of 10,000 (in the base currency of the fund) with that of an index and/or with that of the average for all funds in its Morningstar Category. The total returns are not adjusted to reflect sales charges or the effects of taxation but are adjusted to reflect actual ongoing fund expenses, and they assume reinvestment of dividends and capital gains. If adjusted, effects of sales charges and taxation would reduce the performance quoted. If pre-inception data is included in the analysis, it will be graphed.

The index in the Growth of 10,000 graph is an unmanaged portfolio of specified securities and cannot be invested in directly. The index does not reflect any initial or ongoing expenses. A fund's portfolio may differ significantly from the securities in the index. The index is chosen by Morningstar.

Management Fees %
The management fee includes the management and administrative fees listed in the Management Fees section of a fund's prospectus. Typically, these fees represent the costs shareholders paid for management and administrative services over the fund's prior fiscal year.

Maximum Redemption Fee %
The Maximum Redemption Fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase (for example, 30, 180, or 365 days).

Mean
Mean is the annualized geometric return for the period shown.

Morningstar Analyst Rating™
Effective October 31, 2019, Morningstar updated its Morningstar Analyst Rating™ methodology. For any Morningstar Analyst Rating published on or prior to October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark, or in the case of exchange-traded funds and index mutual funds, a relevant peer group, over the long term on a risk-adjusted basis. They consider quantitative and qualitative factors in their research, and the weight of each pillar may vary. The Analyst Rating scale is Gold, Silver, Bronze, Neutral, and Negative. A Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's conviction in a fund's prospects for outperformance. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at east every 14 months. For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to global.morningstar.com/managerdisclosures/.

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

For any Morningstar Analyst Rating published after October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five-pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark over the long term on a risk adjusted basis. They consider quantitative and qualitative factors in their research. For actively managed strategies, people and process each receive a 45% weighting in their analysis, while parent receives a 10% weighting. For passive strategies, process receives an 80% weighting, while people and parent each receive a

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

10% weighting. For both active and passive strategies, performance has no explicit weight as it is incorporated into the analysis of people and process; price at the share-class level (where applicable) is directly subtracted from an expected gross alpha estimate derived from the analysis of the other pillars. The impact of the weighted pillar scores for people, process and parent on the final Analyst Rating is further modified by a measure of the dispersion of historical alphas among relevant peers. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, the modification by alpha dispersion is not used.

For active funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that an active fund will be able to deliver positive alpha net of fees relative to the standard benchmark index assigned to the Morningstar category. The level of the rating relates to the level of expected positive net alpha relative to Morningstar category peers for active funds. For passive funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will be able to deliver a higher alpha net of fees than the lesser of the relevant Morningstar category median or 0. The level of the rating relates to the level of expected net alpha relative to Morningstar category peers for passive funds. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will deliver a weighted pillar score above a predetermined threshold within its peer group. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at least every 14 months.

For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

Morningstar Quantitative Rating™

Morningstar's quantitative fund ratings consist of: (i) Morningstar Quantitative Rating (overall score), (ii) Quantitative Parent pillar, (iii) Quantitative People pillar, and (iv) Quantitative Process pillar (collectively the "Quantitative Fund Ratings".).The Quantitative Fund Ratings are calculated monthly and derived from the analyst-driven ratings of a fund's peers as determined by statistical algorithms. Morningstar, Inc. calculates Quantitative Fund Ratings for funds when an analyst rating does not exist as part of its qualitative coverage.

- ***Morningstar Quantitative Rating:*** Intended to be comparable to Morningstar's Analyst Ratings for open-end funds and ETFs, which is the summary expression of Morningstar's forward-looking analysis of a fund. The Morningstar Analyst Rating is based on the analyst's conviction in the fund's ability to outperform its peer group and/or relevant benchmark on a risk-adjusted basis over a full market cycle of at least 5 years. Ratings are assigned on a five-tier scale with three positive ratings of Gold, Silver, and Bronze, a Neutral rating, and a Negative rating. Morningstar calculates the Morningstar Quantitative Rating using a statistical model derived from the Morningstar Analyst Rating our fund analysts assign to open-end funds and ETFs. Please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx for information about Morningstar Analyst Rating Morningstar's fund analysts assign to funds.

- ***Quantitative Parent pillar:*** Intended to be comparable to Morningstar's Parent pillar scores, which provides Morningstar's analyst opinion on the stewardship quality of a firm. Morningstar calculates the Quantitative Parent pillar using an algorithm designed to predict the Parent Pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative People pillar:*** Morningstar's People pillar scores, which provides Morningstar's analyst opinion on the fund manager's talent, tenure, and resources. Morningstar calculates the Quantitative People pillar using an algorithm designed to predict the People pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative Process Pillar:*** Intended to be comparable to Morningstar's Process pillar scores, which provides Morningstar's analyst opinion on the fund's strategy and whether the management has a competitive advantage enabling it to execute the process and consistently over time. Morningstar calculates the Quantitative Process pillar using an algorithm designed to predict the Process pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), and Low (1).

Morningstar Quantitative Ratings **have not been made available** to the issuer of the security prior to publication.

Risk Warning

The quantitative fund ratings are not statements of fact. Morningstar does not guarantee the completeness or accuracy of the assumptions or models used in determining the quantitative fund ratings. In addition, there is the risk that the return target will not be met due to such things as unforeseen changes in changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, and tax rate. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions. A change in the fundamental factors underlying the quantitative fund ratings can mean that the recommendation is subsequently no longer accurate.

For more information about Morningstar's quantitative methodology, please visit https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

Morningstar Category

Morningstar Category is assigned by placing funds into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a fund's prospectus may not be sufficiently detailed for our proprietary classification methodology. Funds are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the fund is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

Morningstar Rank

Morningstar Rank is the total return percentile rank within each Morningstar Category. The highest (or most favorable) percentile rank is zero and the lowest (or least favorable) percentile rank is 100. Historical percentile ranks are based on a snapshot of a fund at the time of calculation.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Morningstar Rating™

The Morningstar Rating™for funds, or "star rating", is calculated for funds and separate accounts with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The Morningstar Rating does not include any adjustment for sales loads. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. For more information about the Morningstar Rating for funds, including its methodology, please go to global.morningstar.com/managerdisclosures

The Morningstar Return rates a fund's performance relative to other managed products in its Morningstar Category. It is an assessment of a product's excess return over a risk-free rate (the return of the 90-day Treasury Bill) in comparison with the products in its Morningstar category. In each Morningstar category, the top 10% of products earn a High Morningstar Return (High), the next 22.5% Above Average (+Avg), the middle 35% Average (Avg), the next 22.5% Below Average (-Ave), and the bottom 10% Low (Low). Morningstar Return is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Risk

Morningstar Risk evaluates a fund's downside volatility relative to that of other products in its Morningstar Category. It is an assessment of the variations in monthly returns, with an emphasis on downside variations, in comparison with the products in its Morningstar category. In each Morningstar category, the 10% of products with the lowest measured risk are described as Low Risk (Low), the next 22.5% Below Average (-Avg), the middle 35% Average (Avg), the next 22.5% Above Average (+Avg), and the top 10% High (High). Morningstar Risk is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Style Box™

The Morningstar Style Box™ reveals a fund's investment strategy as of the date noted on this report.

For equity funds, the vertical axis shows the market capitalization of the long stocks owned, and the horizontal axis shows the investment style (value, blend, or growth.) A darkened square in the style box indicates the weighted average style of the portfolio.

For fixed-income funds, the vertical axis shows the credit quality of the long bonds owned and the horizontal axis shows interest-rate sensitivity as measured by a bond's effective duration. Morningstar seeks credit rating information from fund companies on a periodic basis (for example, quarterly). In compiling credit rating information, Morningstar accepts credit ratings reported by fund companies that have been issued by all Nationally Recognized Statistical Rating Organizations. For a list of all NRSROs, please visit http://www.sec.gov/divisions/marketreg/ ratingagency.htm. Additionally, Morningstar accepts foreign credit ratings from widely recognized or registered rating agencies. If two rating organizations/ agencies have rated a security, fund companies are to report the lower rating; if three or more organizations/agencies have rated a security, fund companies are to report the median rating; and in cases where there are more than two organization/agency ratings and a median rating does not exist, fund companies are to use the lower of the two middle ratings.

Please Note: Morningstar, Inc. is not an NRSRO nor does it issue a credit rating on the fund. NRSRO or rating agency ratings can change from time to time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low," "medium," or "high" based on their average credit quality. Funds with a "low" credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; "medium" are those less than "AA-", but greater or equal to "BBB-"; and "high" are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index, which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal-bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases, static breakpoints are used. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-U.S. taxable and non-U.S. domiciled fixed-income funds, static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: more than 3.5 years but less than or equal to 6 years; (iii) Extensive: more than 6 years.

Interest-rate sensitivity for non-U.S. domiciled funds (excluding funds in convertible categories) may be measured with modified duration when effective duration is not available.

P/B Ratio TTM

The Price/Book Ratio (or P/B Ratio) for a fund is the weighted average of the P/B Ratio of the stocks in its portfolio. Book value is the total assets of a company, less total liabilities. The P/B ratio of a company is calculated by dividing the market price of its outstanding stock by the company's book value, and then adjusting for the number of shares outstanding. Stocks with negative book values are excluded from this calculation. It shows approximately how much an investor is paying for a company's assets based on historical valuations.

P/C Ratio TTM

The Price/Cash Flow Ratio (or P/C Ratio) for a fund is the weighted average of the P/C Ratio of the stocks in its portfolio. The P/C Ratio of a stock represents the amount an investor is willing to pay for a dollar generated from a company's operations. It shows the ability of a company to generate cash and acts as a gauge of liquidity and solvency.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

P/E Ratio TTM
The Price/Earnings Ratio (or P/E Ratio) for a fund is the weighted average of the P/E Ratios of the stocks in its portfolio. The P/E Ratio of a stock is the stock's current price divided by the company's trailing 12-month earnings per share. A high P/E Ratio usually indicates the market will pay more to obtain the company's earnings because it believes in the company's abilities to increase their earnings. A low P/E Ratio indicates the market has less confidence that the company's earnings will increase, however value investors may believe such stocks have an overlooked or undervalued potential for appreciation.

Percentile Rank in Category
Percentile Rank is a standardized way of ranking items within a peer group, in this case, funds within the same Morningstar Category. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable for returns (high returns), while higher percentile ranks are generally more favorable for risk measures (low risk).

Performance Quartile
Performance Quartile reflects a fund's Morningstar Rank.

Potential Capital Gains Exposure
Potential Capital Gains Exposure is an estimate of the percent of a fund's assets that represent gains. It measures how much the fund's assets have appreciated, and it can be an indicator of possible future capital gains distributions. A positive potential capital gains exposure value means that the fund's holdings have generally increased in value while a negative value means that the fund has reported losses on its book.

Quarterly Returns
Quarterly Return is calculated applying the same methodology as Total Return except it represents return through each quarter-end.

R-Squared
R-squared is the percentage of a security or portfolio's return movements that are explained by movements in its benchmark index, showing the degree of correlation between the security or portfolio and the benchmark. This figure is helpful in assessing how likely it is that beta and alpha are statistically significant. A value of 1 indicates perfect correlation between the security or portfolio and its benchmark. The lower the R-squared value, the lower the correlation.

Regional Exposure
The regional exposure is a display of the portfolio's assets invested in the regions shown on the report.

Sector Weightings
Super Sectors represent Morningstar's broadest classification of equity sectors by assigning the 11 equity sectors into three classifications. The Cyclical Super Sector includes industries significantly impacted by economic shifts, and the stocks included in these sectors generally have betas greater than 1. The Defensive Super Sector generally includes industries that are relatively immune to economic cycles, and the stocks in these industries generally have betas less than 1. The Sensitive Super Sector includes industries that ebb and flow with the overall economy, but not severely so. Stocks in the Sensitive Super Sector generally have betas that are close to 1.

Share Change
Shares Change represents the number of shares of a stock bought or sold by a fund since the previously reported portfolio of the fund.

Sharpe Ratio
Sharpe Ratio uses standard deviation and excess return (a measure of a security or portfolio's return in excess of the U.S. Treasury three-month Treasury Bill) to determine the reward per unit of risk.

Standard Deviation
Standard deviation is a statistical measure of the volatility of the security or portfolio's returns. The larger the standard deviation, the greater the volatility of return.

Standardized Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experience if the security was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Total Return
Total Return, or "Non Load-Adjusted Return", reflects performance without adjusting for sales charges (if applicable) or the effects of taxation, but it is adjusted to reflect all actual ongoing security expenses and assumes reinvestment of dividends and capital gains. It is the return an investor would have experienced if the fund was held throughout the period. If adjusted for sales charges and the effects of taxation, the performance quoted would be significantly reduced.

Total Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Trailing Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experienced if the fund was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Load-Adjusted Monthly Return is calculated applying the same methodology as Standardized Return, except that it represents return through month-end. As with Standardized Return, it reflects the impact of sales charges and ongoing fund expenses, but not taxation. If adjusted for the effects of taxation, the performance quoted would be significantly different.

Trailing Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Investment Risks

International/Emerging Market Equities: Investing in international securities involves special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Sector Strategies: Portfolios that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

to increased industry-specific risks.

Non-Diversified Strategies: Portfolios that invest a significant percentage of assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

Small Cap Equities: Portfolios that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

Mid Cap Equities: Portfolios that invest in companies with market capitalization below $10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

High-Yield Bonds: Portfolios that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

Tax-Free Municipal Bonds: The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

Bonds: Bonds are subject to interest rate risk. As the prevailing level of bond interest rates rise, the value of bonds already held in a portfolio declines. Portfolios that hold bonds are subject to declines and increases in value due to general changes in interest rates.

HOLDRs: The investor should note that these are narrow industry-focused products that, if the industry is hit by hard times, will lack diversification and possible loss of investment would be likely. These securities can trade at a discount to market price, ownership is of a fractional share interest, the underlying investments may not be representative of the particular industry, the HOLDR might be delisted from the AMEX if the number of underlying companies drops below nine, and the investor may experience trading halts.

Hedge Funds: The investor should note that hedge fund investing involves specialized risks that are dependent upon the type of strategies undertaken by the manager. This can include distressed or event-driven strategies, long/short strategies, using arbitrage (exploiting price inefficiencies), international investing, and use of leverage, options and/or derivatives. Although the goal of hedge fund managers may be to reduce volatility and produce positive absolute return under a variety of market conditions, hedge funds may involve a high degree of risk and are suitable only for investors of substantial financial means who could bear the entire loss of their investment.

Bank Loan/Senior Debt: Bank loans and senior loans are impacted by the risks associated with fixed income in general, including interest rate risk and default risk. They are often non-investment grade; therefore, the risk of default is high. These securities are also relatively illiquid. Managed products that invest in bank loans/senior debt are often highly leveraged, producing a high risk of return volatility.

Exchange Traded Notes (ETNs): ETNs are unsecured debt obligations. Any repayment of notes is subject to the issuer's ability to repay its obligations. ETNs do not typically pay interest.

Leveraged ETFs: Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their fund objectives on a daily basis (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e. 200%, 300%, -200%, or -300% or 2X, 3X, -2X, -3X). Compounding has the ability to affect the performance of the fund to be either greater or less than the index performance multiplied by the multiple stated within the funds objective over a stated time period.

Short Positions: When a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

Long-Short: Due to the strategies used by long-short funds, which may include but are not limited to leverage, short selling, short-term trading, and investing in derivatives, these funds may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

Liquidity Risk: Closed-end fund, ETF, and HOLDR trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

Market Price Risk: The market price of ETFs, HOLDRs, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

Market Risk: The market prices of ETFs and HOLDRs can fluctuate as a result of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

Target-Date Funds: Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximate date when investors expect to begin withdrawing their money. A target-date fund's investment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including at the fund's target date.

High double- and triple-digit returns: High double- and triple-digit returns were the result of extremely favorable market conditions, which may not continue to be the case. High returns for short time periods must not be a major factor when making investment decisions.

Benchmark Disclosure

BBgBarc US Agg Bond TR USD
This index is composed of the BarCap Government/Credit Index, the Mortgage-Backed Securities Index, and the Asset-Backed Securities Index. The returns we publish for the index are total returns, which includes the daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core US Aggregate Bond ETF.

MSCI EAFE NR USD
This Europe, Australasia, and Far East index is a market-capitalization-weighted index of 21 non-U.S., industrialized country indexes.

This disclosure applies to all MSCI indices: Certain information included herein is derived by Morningstar in part from MSCI's Index Constituents (the "Index

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Data"). However, MSCI has not reviewed any information contained herein and does not endorse or express any opinion such information or analysis. MSCI does not make any express or implied warranties, representations or guarantees concerning the Index Data or any information or data derived therefrom, and in no event will MSCI have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of this information.

Russell 1000 TR USD
Consists of the 1000 largest companies within the Russell 3000 index, which represents approximately 98% of the investable US equity market. Also known as the Market-Oriented Index, because it represents the group of stocks from which most active money managers choose. The constituents displayed for this index are from the following proxy: iShares Russell 1000 ETF.

Russell 3000 TR USD
Composed of the 3000 largest U.S. companies by market capitalization, representing approximately 98% of the U.S. equity market. The constituents displayed for this index are from the following proxy: iShares Russell 3000 ETF.

S&P 500 TR USD
A market capitalization-weighted index composed of the 500 most widely held stocks whose assets and/or revenues are based in the US; it's often used as a proxy for the U.S. stock market. TR (Total Return) indexes include daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: SPDR® S&P 500 ETF Trust.

USTREAS T-Bill Auction Ave 3 Mon
Three-month T-bills are government-backed, short-term investments considered to be risk-free and as good as cash because the maturity is only three months. Morningstar collects yields on the T-bill on a weekly basis from the Wall Street Journal.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. Including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Schwab® Treasury Inflation Protected Securities Index Fund (SWRSX)

Firm Background*

Charles Schwab Investment Management, Inc., (CSIM or the Firm), was founded in 1989 as a wholly-owned subsidiary of The Charles Schwab Corporation (Schwab), a publicly held company. Initially founded to serve as the investment adviser to the Schwab Money Funds, CSIM now provides advisory services to proprietary mutual funds, separately managed accounts participating in wrap programs, exchange-traded funds, and collective trust funds. CSIM is headquartered in San Francisco, CA, with operations also residing in Colorado and California. The Firm has more than 500 employees, including approximately 80 investment professionals. Jonathan de St. Paer currently serves as the Firm's President (since October 1, 2018) and CEO (since April 1, 2019). The majority of CSIM's asset base resides in passive index (52%) and money market (38%) strategies. The remainder is in active and target date/asset allocation strategies.

Schwab was founded in 1971 by Charles Schwab as a full service brokerage firm. Since its founding Schwab has expanded its services to include investment management for retail and institutional clients, as well as traditional banking and lending.

Organization: Satisfactory*

In our view, CSIM has grown into one of the larger asset management companies in the U.S. and is a substantial provider of retail index funds, money market funds, and exchange traded funds. While there have been changes to the Firm's senior management team since its founding, we believe the transitioning of leadership has been thoughtfully executed. Further, we believe the Firm has effectively expanded its product base over time and placed adequate resources to support its strategies and business segments. We believe the Firm's client base is diverse, as its products have gained acceptance across both retail and institutional client segments.

Strategy**

The investment seeks as closely as possible, before fees and expenses, the total return of the Bloomberg Barclays US Treasury Inflation-Linked Bond Index (Series-L)SM. To pursue its goal, the fund generally invests in securities that are included in the index. The index includes all publicly-issued TIPS that have at least one year remaining to maturity, are rated investment grade and have $500 million or more of outstanding face value. The TIPS in the index must be denominated in U.S. dollars and must be fixed-rate and non-convertible.

Summary

This fund has not been rated by Morningstar, Inc.

Performance

This fund has not been rated by Morningstar, Inc.

Price

This fund has not been rated by Morningstar, Inc.

Process

This fund has not been rated by Morningstar, Inc.

People

This fund has not been rated by Morningstar, Inc.

* Source: BNY Mellon Manager Research Group, as of September 2019
** Source: Charles Schwab Investment Management, Inc. (CSIM), as of 6/30/2020

Release date 07-31-2020 Page 1 of 11

Schwab® Treasury Infl Protected Secs Idx (USD)

Morningstar Quantitative Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Silver	★★★★	BBgBarc US Agg Bond TR USD	BBgBarc US Treasury US TIPS TR USD	US Fund Inflation-Protected Bond
06-30-2020	199 US Fund Inflation-Protected Bond			

Performance 07-31-2020

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2018	-0.78	0.73	-0.60	-0.48	-1.32
2019	3.20	2.67	1.31	0.77	8.38
2020	1.69	4.19	—	—	8.35

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	10.22	5.62	4.07	3.53	4.11
Std 06-30-2020	8.17	—	3.64	3.29	3.98
Total Return	10.22	5.62	4.07	3.53	4.11
+/- Std Index	0.10	-0.08	-0.40	-0.34	—
+/- Cat Index	-0.15	-0.07	-0.11	-0.21	—
% Rank Cat	31	27	24	27	
No. in Cat	212	199	171	115	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 08-05-20	0.54	-2.19

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-407-0256 or visit www.schwab.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

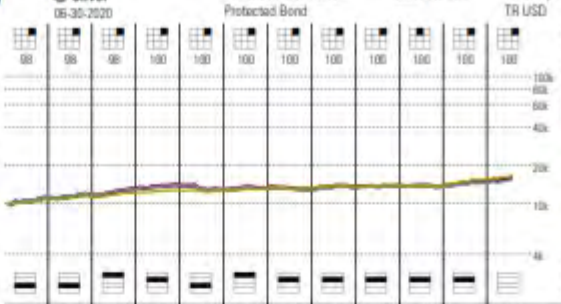
Management Fees %	0.05
12b1 Expense %	NA
Net Expense Ratio %	**0.05**
Gross Expense Ratio %	**0.05**

Risk and Return Profile

	3 Yr 199 funds	5 Yr 171 funds	10 Yr 115 funds
Morningstar Rating™	4★	4★	4★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	+Avg	+Avg	+Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	3.78	3.58	4.43
Mean	5.62	4.07	3.53
Sharpe Ratio	1.02	0.81	0.67

MPT Statistics	Standard Index	Best Fit Index BBgBarc US Treasury US TIPS TR USD
Alpha	-0.16	-0.03
Beta	1.03	0.99
R-Squared	80.29	99.83
12-Month Yield		1.42%
Potential Cap Gains Exp		4.16%



Investment Style
Fixed-Income
Bond %

Growth of $10,000
- Schwab® Treasury Infl Protected Secs Idx 16,078
- Category Average 15,454
- Standard Index 16,483

Performance Quartile (within category)

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	07-20	History
10.43	10.72	11.59	12.09	10.87	10.98	10.69	10.97	11.07	10.62	11.26	12.20	NAV/Price
9.24	5.82	12.80	6.59	-8.83	3.48	-1.61	4.47	2.94	-1.32	8.38	8.35	Total Return %
3.31	-0.72	4.96	2.38	-6.80	-2.49	-2.16	1.82	-0.60	-1.34	-0.34	0.63	+/- Standard Index
-2.17	-0.49	-0.76	-0.39	-0.22	-0.16	-0.17	-0.21	-0.06	-0.06	-0.05	-0.09	+/- Category Index
74	52	25	39	52	9	30	45	38	42	30	—	% Rank Cat
158	162	193	198	212	218	228	235	231	228	221	212	No. of Funds in Cat

Portfolio Analysis 06-30-2020

Asset Allocation %	Net %	Long %	Short %
Cash	0.15	0.15	0.00
US Stocks	0.00	0.00	0.00
Non-US Stocks	0.00	0.00	0.00
Bonds	99.85	99.85	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style

Value	Blend	Growth	
			Large
			Mid
			Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	—	—	—
P/C Ratio TTM	—	—	—
P/B Ratio TTM	—	—	—
Geo Avg Mkt Cap $mil	—	—	—

Fixed-Income Style

Ltd	Mod	Ext	
			High
			Med
			Low

Avg Eff Maturity	8.22
Avg Eff Duration	7.69
Avg Wtd Coupon	0.76
Avg Wtd Price	112.31

Credit Quality Breakdown 06-30-2020

	Bond %
AAA	100.00
AA	0.00
A	0.00
BBB	0.00
BB	0.00
B	0.00
Below B	0.00
NR	0.00

Regional Exposure	Stocks %	Rel Std Index
Americas	—	—
Greater Europe	—	—
Greater Asia	—	—

Share Chg since 05-2020	Share Amount	Holdings: 0 Total Stocks , 42 Total Fixed-Income, 25% Turnover Ratio	Net Assets %
⊕	45 mil	United States Treasury Notes 0.38%	3.77
⊕	45 mil	United States Treasury Notes 0.12%	3.74
⊕	43 mil	United States Treasury Notes 0.62%	3.67
⊕	42 mil	United States Treasury Notes 0.12%	3.59
⊕	41 mil	United States Treasury Notes 0.25%	3.50
⊕	42 mil	United States Treasury Notes 0.12%	3.48
⊕	42 mil	United States Treasury Notes 0.12%	3.45
⊕	41 mil	United States Treasury Notes 0.12%	3.40
⊕	39 mil	United States Treasury Notes 0.38%	3.34
⊕	37 mil	United States Treasury Notes 0.12%	3.26
⊕	38 mil	United States Treasury Notes 0.62%	3.21
⊕	34 mil	United States Treasury Notes 0.5%	3.02
⊕	34 mil	United States Treasury Notes 0.62%	2.97
⊕	32 mil	United States Treasury Notes 0.38%	2.86
⊕	32 mil	United States Treasury Notes 0.38%	2.79

Sector Weightings	Stocks %	Rel Std Index
Cyclical	—	—
Basic Materials	—	—
Consumer Cyclical	—	—
Financial Services	—	—
Real Estate	—	—
Sensitive	—	—
Communication Services	—	—
Energy	—	—
Industrials	—	—
Technology	—	—
Defensive	—	—
Consumer Defensive	—	—
Healthcare	—	—
Utilities	—	—

Operations

Family:	Schwab Funds	Base Currency:	USD	Purchase Constraints:	—
Manager:	Multiple	Ticker:	SWRSX	Incept:	03-31-2000
Tenure:	14.4 Years	ISIN:	US8085178171	Type:	MF
Objective:	Income	Minimum Initial Purchase:	$0	Total Assets:	$1,339.97 mil

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Standardized and Tax Adjusted Returns Disclosure Statement

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end please visit http://advisor.morningstar.com/familyinfo.asp.

Standardized Returns assume reinvestment of dividends and capital gains. They depict performance without adjusting for the effects of taxation, but are adjusted to reflect sales charges and ongoing fund expenses.

If adjusted for taxation, the performance quoted would be significantly reduced. For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges. The maximum redemption fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase.

After-tax returns are calculated using the highest individual federal marginal income tax rates, and do not reflect the impact of state and local taxes. Actual after-tax returns depend on the investor's tax situation and may differ from those shown. The after-tax returns shown are not relevant to investors who hold their fund shares through tax-deferred arrangements such as 401(k) plans or an IRA. After-tax returns exclude the effects of either the alternative minimum tax or phase-out of certain tax credits. Any taxes due are as of the time the distributions are made, and the taxable amount and tax character of each distribution are as specified by the fund on the dividend declaration date. Due to foreign tax credits or realized capital losses, after-tax returns may be greater than before-tax returns. After-tax returns for exchange-traded funds are based on net asset value.

Money Market Fund Disclosures

If money market fund(s) are included in the Standardized Returns table below, each money market fund's name will be followed by a superscripted letter that links it to the applicable disclosure below:

Institutional Money Market Funds (designated by an "S"):

You could lose money by investing in the fund. Because the share price of the fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "L") and

Retail Money Market Funds (designated by an "L"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen not to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "N"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Annualized returns 06-30-2020

Standardized Returns (%)	7-day Yield Subsidized as of date	7-day Yield Unsubsidized as of date	1Yr	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
Schwab® Treasury Infl Protected Secs Idx	—	—	8.17	3.84	3.29	3.98	03-31-2006	NA	NA	0.05	0.05	NA
BBgBarc US Agg Bond TR USD			**8.74**	**4.30**	**3.82**	**—**	**01-03-1990**					
BBgBarc US Treasury US TIPS TR USD			**8.28**	**3.75**	**3.52**	**—**	**04-15-1998**					
MSCI EAFE NR USD			**-5.13**	**2.05**	**5.73**	**—**	**03-31-1986**					
S&P 500 TR USD			**7.51**	**10.73**	**13.99**	**—**	**09-11-1989**					
USTREAS T-Bill Auction Ave 3 Mon			**1.26**	**1.17**	**0.62**	**—**	**02-28-1941**					

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distribution is made. The information, data, analyses and opinions contained herein: (1) contain the confidential and proprietary information of Morningstar; (2) may include, or be based from, accurate information provided to you from financial professionals which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or variable and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Annualized returns 06-30-2020

Return after Tax (%)	On Distribution					On Distribution and Sales of Shares			
	1Yr	5Yr	10Yr	Since Inception	Inception Date	1Yr	5Yr	10Yr	Since Inception
Schwab® Treasury Infl Protected Secs Idx	7.49	2.80	2.42	2.98	03-31-2006	4.81	2.41	2.18	2.70

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Mutual Fund Detail Report Disclosure Statement

The Mutual Fund Detail Report is supplemental sales literature, and therefore must be preceded or accompanied by the mutual fund's current prospectus or an equivalent statement. Please read this information carefully. In all cases, this disclosure statement should accompany the Mutual Fund Detail Report. Morningstar is not itself a FINRA-member firm.

All data presented is based on the most recent information available to Morningstar as of the release date and may or may not be an accurate reflection of current data for securities included in the fund's portfolio. There is no assurance that the data will remain the same.

Unless otherwise specified, the definition of "funds" used throughout this Disclosure Statement includes closed-end funds, exchange-traded funds, grantor trusts, index mutual funds, open-ended mutual funds, and unit investment trusts. It does not include exchange-traded notes or exchange-traded commodities.

Prior to 2016, Morningstar's methodology evaluated open-end mutual funds and exchange-traded funds as separate groups. Each group contained a subset of the current investments included in our current comparative analysis. In this report, historical data presented on a calendar-year basis and trailing periods ending at the most-recent month-end reflect the updated methodology.

Risk measures (such as alpha, beta, r-squared, standard deviation, mean, or Sharpe ratio) are calculated for securities or portfolios that have at least a three-year history.

Most Morningstar rankings do not include any adjustment for one-time sales charges, or loads. Morningstar does publish load-adjusted returns, and ranks such returns within a Morningstar Category in certain reports. The total returns for ETFs and fund share classes without one-time loads are equal to Morningstar's calculation of load-adjusted returns. Share classes that are subject to one-time loads relating to advice or sales commissions have their returns adjusted as part of the load-adjusted return calculation to reflect those loads.

Comparison of Fund Types

Funds, including closed-end funds, exchange-traded funds (ETFs), money market funds, open-end funds, and unit investment trusts (UITs), have many similarities, but also many important differences. In general, publically-offered funds are investment companies registered with the Securities and Exchange Commission under the Investment Company Act of 1940, as amended. Funds pool money from their investors and manage it according to an investment strategy or objective, which can vary greatly from fund to fund. Funds have the ability to offer diversification and professional management, but also involve risk, including the loss of principal.

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. A closed-end mutual fund's expense ratio is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Closed-end funds may also have 12b-1 fees. Income distributions and capital gains of the closed-end fund are subject to income tax, if held in a taxable account.

An ETF is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, an ETF can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. ETFs are not actively managed, so their value may be affected by a general decline in the U.S. market segments relating to their underlying indexes. Similarly, an imperfect match between an ETF's holdings and those of its underlying index may cause its performance to vary from that of its underlying index. The expense ratio of an ETF is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. ETFs do not have 12b-1 fees or sales loads. Capital gains from funds held in a taxable account are subject to income tax. In many, but not all cases, ETFs are generally considered to be more tax-efficient when compared to similarly invested mutual funds.

Holding company depository receipts (HOLDRs) are similar to ETFs, but they focus on narrow industry groups. HOLDRs initially own 20 stocks, which are unmanaged, and can become more concentrated due to mergers, or the disparate performance of their holdings. HOLDRs can only be bought in 100-share increments. Investors may exchange shares of a HOLDR for its underlying stocks at any time.

A money-market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and are not guaranteed by a bank or other financial institution.

An open-end fund is an investment company that issues shares on a continuous basis. Shares can be purchased from the open-end mutual fund itself, or through an intermediary, but cannot be traded on a secondary market, such as the New York Stock Exchange. Investors pay the open-end mutual fund's current net asset value plus any initial sales loads. Net asset value is calculated daily, at the close of business. Open-end mutual fund shares can be redeemed, or sold back to the fund or intermediary, at their current net asset value minus any deferred sales loads or redemption fees. The expense ratio for an open-end mutual fund is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Open-end funds may also have 12b-1 fees. Income distributions and capital gains of the open-end fund are subject to income tax, if held in a taxable account.

A unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units. A one-time initial sales charge is deducted from an investment made into the trust. UIT investors may also pay creation and development fees, organization costs, and/or trustee and operation expenses. UIT units may be redeemed by the sponsor at their net

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

asset value minus a deferred sales charge, and sold to other investors. UITs have set termination dates, at which point the underlying securities are sold and the sales proceeds are paid to the investor. Typically, a UIT investment is rolled over into successive trusts as part of a long-term strategy. A rollover fee may be charged for the exercise of rollover purchases. There are tax consequences associated with rolling over an investment from one trust to the next.

Performance

The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares, when sold, may be worth more or less than the original investment. Fund portfolio statistics change over time. Funds are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution.

Morningstar calculates after-tax returns using the highest applicable federal marginal income tax rate plus the investment income tax and Medicare surcharge. As of 2018, this rate is 37% plus 3.8% investment income plus 0.9% Medicare surcharge, or 41.7%. This rate changes periodically in accordance with changes in federal law.

Pre-Inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the inception of the share class of the fund shown in this report ("Report Share Class"). If pre-inception returns are shown, a performance stream consisting of the Report Share Class and older share class(es) is created. Morningstar adjusts pre-inception returns downward to reflect higher expenses in the Report Share Class, we do not hypothetically adjust returns upwards for lower expenses. For more information regarding calculation of pre-inception returns please see the Morningstar Extended Performance Methodology.

When pre-inception data is presented in the report, the header at the top of the report will indicate this. In addition, the pre-inception data included in the report will appear in italics.

While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of newer share classes of a fund, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. For example, the fee structures of a retail share class will vary from that of an institutional share class, as retail shares tend to have higher operating expenses and sales charges. These adjusted historical returns are not actual returns. The underlying investments in the share classes used to calculate the pre-performance string will likely vary from the underlying investments held in the fund after inception. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the fund itself.

12b1 Expense %

A 12b-1 fee is a fee used to pay for a mutual fund's distribution costs. It is often used as a commission to brokers for selling the fund. The amount of the fee is taken from a fund's returns.

Alpha

Alpha is a measure of the difference between a security or portfolio's actual returns and its expected performance, given its level of risk (as measured by beta.) Alpha is often seen as a measure of the value added or subtracted by a portfolio manager.

Asset Allocation

Asset Allocation reflects asset class weightings of the portfolio. The "Other" category includes security types that are not neatly classified in the other asset classes, such as convertible bonds and preferred stocks, or cannot be classified by Morningstar as a result of missing data. Morningstar may display asset allocation data in several ways, including tables or pie charts. In addition, Morningstar may compare the asset class breakdown of the fund against its three-year average, category average, and/or index proxy.

Asset allocations shown in tables may include a breakdown among the long, short, and net (long positions net of short) positions. These statistics summarize what the fund's managers are buying and how they are positioning the fund's portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the fund's exposure and risk. Long positions involve buying the security outright and selling it later, with the hope the security's price rises over time. Short positions are taken with the hope of benefitting from anticipated price declines. The investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience a loss buying it at a higher price than the sale price.

Most fund portfolios hold fairly conventional securities, such as long positions in equities and bonds. Morningstar may generate a colored pie chart for these portfolios. Other portfolios use other investment strategies or securities, such as short positions or derivatives, in an attempt to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while other have unique return and risk characteristics. Portfolios that incorporate investment strategies resulting in short positions or portfolio with relatively exotic derivative positions often report data to Morningstar that does not meet the parameters of the calculation underlying a pie chart's generation. Because of the nature of how these securities are reported to Morningstar, we may not always get complete portfolio information to report asset allocation. Morningstar, at its discretion, may determine if unidentified characteristics of fund holdings are material. Asset allocation and other breakdowns may be rescaled accordingly so that percentages total to 100 percent. (Morningstar used discretion to determine if unidentified characteristics of fund holdings are material, pie charts and other breakdowns may rescale identified characteristics to 100% for more intuitive presentation.)

Note that all other portfolio statistics presented in this report are based on the long (or long rescaled) holdings of the fund only.

Average Effective Duration

Duration is a time measure of a bond's interest-rate sensitivity. Average effective duration is a weighted average of the duration of the fixed-income securities within a portfolio.

Average Effective Maturity

Average Effective Maturity is a weighted average of the maturities of all bonds in a portfolio.

Average Weighted Coupon

A coupon is the fixed annual percentage paid out on a bond. The average weighted coupon is the asset-weighted coupon of each bond in the portfolio.

Average Weighted Price

Average Weighted Price is the asset-weighted price of bonds held in a portfolio, expressed as a percentage of par (face) value. This number reveals if the portfolio favors bonds selling at prices above or below par value (premium or discount securities respectively.)

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Best Fit Index
Alpha, beta, and R-squared statistics are presented for a broad market index and a "best fit" index. The Best Fit Index identified in this report was determined by Morningstar by calculating R-squared for the fund against approximately 100 indexes tracked by Morningstar. The index representing the highest R-squared is identified as the best fit index. The best fit index may not be the fund's benchmark, nor does it necessarily contain the types of securities that may be held by the fund or portfolio.

Beta
Beta is a measure of a security or portfolio's sensitivity to market movements (proxied using an index.) A beta of greater than 1 indicates more volatility than the market, and a beta of less than 1 indicates less volatility than the market.

Credit Quality Breakdown
Credit Quality breakdowns are shown for corporate-bond holdings in the fund's portfolio and depict the quality of bonds in the underlying portfolio. It shows the percentage of fixed-income securities that fall within each credit-quality rating as assigned by a Nationally Recognized Statistical Rating Organization (NRSRO). Bonds not rated by an NRSRO are included in the Other/Not-Classified category.

Deferred Load %
The back-end sales charge or deferred load is imposed when an investor redeems shares of a fund. The percentage of the load charged generally declines the longer the fund's shares are held by the investor. This charge, coupled with 12b-1 fees, commonly serves as an alternative to a traditional front-end load.

Expense Ratio %
The expense ratio is the annual fee that all funds charge their shareholders. It expresses the percentage of assets deducted each fiscal year for fund expenses, including 12b-1 fees, management fees, administrative fees, operating costs, and all other asset-based costs incurred by the fund. Portfolio transaction fees, or brokerage costs, as well as front-end or deferred sales charges are not included in the expense ratio. The expense ratio, which is deducted from the fund's average net assets, is accrued on a daily basis. The gross expense ratio, in contrast to the net expense ratio, does not reflect any fee waivers in effect during the time period.

Front-end Load %
The initial sales charge or front-end load is a deduction made from each investment in the fund and is generally based on the amount of the investment.

Geometric Average Market Capitalization
Geometric Average Market Capitalization is a measure of the size of the companies in which a portfolio invests.

Growth of 10,000
For funds, this graph compares the growth of an investment of 10,000 (in the base currency of the fund) with that of an index and/or with that of the average for all funds in its Morningstar Category. The total returns are not adjusted to reflect sales charges or the effects of taxation but are adjusted to reflect actual ongoing fund expenses, and they assume reinvestment of dividends and capital gains. If adjusted, effects of sales charges and taxation would reduce the performance quoted. If pre-inception data is included in the analysis, it will be graphed.

The index in the Growth of 10,000 graph is an unmanaged portfolio of specified securities and cannot be invested in directly. The index does not reflect any initial or ongoing expenses. A fund's portfolio may differ significantly from the securities in the index. The index is chosen by Morningstar.

Management Fees %
The management fee includes the management and administrative fees listed in the Management Fees section of a fund's prospectus. Typically, these fees represent the costs shareholders paid for management and administrative services over the fund's prior fiscal year.

Maximum Redemption Fee %
The Maximum Redemption Fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase (for example, 30, 180, or 365 days).

Mean
Mean is the annualized geometric return for the period shown.

Morningstar Analyst Rating™
Effective October 31, 2019, Morningstar updated its Morningstar Analyst Rating™ methodology. For any Morningstar Analyst Rating published on or prior to October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark, or in the case of exchange-traded funds and index mutual funds, a relevant peer group, over the long term on a risk-adjusted basis. They consider quantitative and qualitative factors in their research, and the weight of each pillar may vary. The Analyst Rating scale is Gold, Silver, Bronze, Neutral, and Negative. A Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's conviction in a fund's prospects for outperformance. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at east every 14 months. For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to global.morningstar.com/managerdisclosures/.

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

For any Morningstar Analyst Rating published after October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five-pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark over the long term on a risk adjusted basis. They consider quantitative and qualitative factors in their research. For actively managed strategies, people and process each receive a 45% weighting in their analysis, while parent receives a 10% weighting. For passive strategies, process receives an 80% weighting, while people and parent each receive a

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

10% weighting. For both active and passive strategies, performance has no explicit weight as it is incorporated into the analysis of people and process; price at the share-class level (where applicable) is directly subtracted from an expected gross alpha estimate derived from the analysis of the other pillars. The impact of the weighted pillar scores for people, process and parent on the final Analyst Rating is further modified by a measure of the dispersion of historical alphas among relevant peers. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, the modification by alpha dispersion is not used.

For active funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that an active fund will be able to deliver positive alpha net of fees relative to the standard benchmark index assigned to the Morningstar category. The level of the rating relates to the level of expected positive net alpha relative to Morningstar category peers for active funds. For passive funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will be able to deliver a higher alpha net of fees than the lesser of the relevant Morningstar category median or 0. The level of the rating relates to the level of expected net alpha relative to Morningstar category peers for passive funds. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will deliver a weighted pillar score above a predetermined threshold within its peer group. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at least every 14 months.

For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

Morningstar Quantitative Rating™

Morningstar's quantitative fund ratings consist of: (i) Morningstar Quantitative Rating (overall score), (ii) Quantitative Parent pillar, (iii) Quantitative People pillar, and (iv) Quantitative Process pillar (collectively the "Quantitative Fund Ratings".).The Quantitative Fund Ratings are calculated monthly and derived from the analyst-driven ratings of a fund's peers as determined by statistical algorithms. Morningstar, Inc. calculates Quantitative Fund Ratings for funds when an analyst rating does not exist as part of its qualitative coverage.

- ***Morningstar Quantitative Rating:*** Intended to be comparable to Morningstar's Analyst Ratings for open-end funds and ETFs, which is the summary expression of Morningstar's forward-looking analysis of a fund. The Morningstar Analyst Rating is based on the analyst's conviction in the fund's ability to outperform its peer group and/or relevant benchmark on a risk-adjusted basis over a full market cycle of at least 5 years. Ratings are assigned on a five-tier scale with three positive ratings of Gold, Silver, and Bronze, a Neutral rating, and a Negative rating. Morningstar calculates the Morningstar Quantitative Rating using a statistical model derived from the Morningstar Analyst Rating our fund analysts assign to open-end funds and ETFs. Please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx for information about Morningstar Analyst Rating Morningstar's fund analysts assign to funds.

- ***Quantitative Parent pillar:*** Intended to be comparable to Morningstar's Parent pillar scores, which provides Morningstar's analyst opinion on the stewardship quality of a firm. Morningstar calculates the Quantitative Parent pillar using an algorithm designed to predict the Parent Pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative People pillar:*** Morningstar's People pillar scores, which provides Morningstar's analyst opinion on the fund manager's talent, tenure, and resources. Morningstar calculates the Quantitative People pillar using an algorithm designed to predict the People pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative Process Pillar:*** Intended to be comparable to Morningstar's Process pillar scores, which provides Morningstar's analyst opinion on the fund's strategy and whether the management has a competitive advantage enabling it to execute the process and consistently over time. Morningstar calculates the Quantitative Process pillar using an algorithm designed to predict the Process pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), and Low (1).

Morningstar Quantitative Ratings **have not been made available** to the issuer of the security prior to publication.

Risk Warning

The quantitative fund ratings are not statements of fact. Morningstar does not guarantee the completeness or accuracy of the assumptions or models used in determining the quantitative fund ratings. In addition, there is the risk that the return target will not be met due to such things as unforeseen changes in changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, and tax rate. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions. A change in the fundamental factors underlying the quantitative fund ratings can mean that the recommendation is subsequently no longer accurate.

For more information about Morningstar's quantitative methodology, please visit https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

Morningstar Category

Morningstar Category is assigned by placing funds into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a fund's prospectus may not be sufficiently detailed for our proprietary classification methodology. Funds are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the fund is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

Morningstar Rank

Morningstar Rank is the total return percentile rank within each Morningstar Category. The highest (or most favorable) percentile rank is zero and the lowest (or least favorable) percentile rank is 100. Historical percentile ranks are based on a snapshot of a fund at the time of calculation.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Morningstar Rating™

The Morningstar Rating™for funds, or "star rating", is calculated for funds and separate accounts with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The Morningstar Rating does not include any adjustment for sales loads. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. For more information about the Morningstar Rating for funds, including its methodology, please go to global.morningstar.com/managerdisclosures

The Morningstar Return rates a fund's performance relative to other managed products in its Morningstar Category. It is an assessment of a product's excess return over a risk-free rate (the return of the 90-day Treasury Bill) in comparison with the products in its Morningstar category. In each Morningstar category, the top 10% of products earn a High Morningstar Return (High), the next 22.5% Above Average (+Avg), the middle 35% Average (Avg), the next 22.5% Below Average (-Ave), and the bottom 10% Low (Low). Morningstar Return is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Risk

Morningstar Risk evaluates a fund's downside volatility relative to that of other products in its Morningstar Category. It is an assessment of the variations in monthly returns, with an emphasis on downside variations, in comparison with the products in its Morningstar category. In each Morningstar category, the 10% of products with the lowest measured risk are described as Low Risk (Low), the next 22.5% Below Average (-Avg), the middle 35% Average (Avg), the next 22.5% Above Average (+Avg), and the top 10% High (High). Morningstar Risk is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Style Box™

The Morningstar Style Box™ reveals a fund's investment strategy as of the date noted on this report.

For equity funds, the vertical axis shows the market capitalization of the long stocks owned, and the horizontal axis shows the investment style (value, blend, or growth.) A darkened square in the style box indicates the weighted average style of the portfolio.

For fixed-income funds, the vertical axis shows the credit quality of the long bonds owned and the horizontal axis shows interest-rate sensitivity as measured by a bond's effective duration. Morningstar seeks credit rating information from fund companies on a periodic basis (for example, quarterly). In compiling credit rating information, Morningstar accepts credit ratings reported by fund companies that have been issued by all Nationally Recognized Statistical Rating Organizations. For a list of all NRSROs, please visit http://www.sec.gov/divisions/marketreg/ ratingagency.htm. Additionally, Morningstar accepts foreign credit ratings from widely recognized or registered rating agencies. If two rating organizations/ agencies have rated a security, fund companies are to report the lower rating; if three or more organizations/agencies have rated a security, fund companies are to report the median rating; and in cases where there are more than two organization/agency ratings and a median rating does not exist, fund companies are to use the lower of the two middle ratings.

Please Note: Morningstar, Inc. is not an NRSRO nor does it issue a credit rating on the fund. NRSRO or rating agency ratings can change from time to time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low," "medium," or "high" based on their average credit quality. Funds with a "low" credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; "medium" are those less than "AA-", but greater or equal to "BBB-"; and "high" are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index, which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal-bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases, static breakpoints are used. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-U.S. taxable and non-U.S. domiciled fixed-income funds, static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: more than 3.5 years but less than or equal to 6 years; (iii) Extensive: more than 6 years.

Interest-rate sensitivity for non-U.S. domiciled funds (excluding funds in convertible categories) may be measured with modified duration when effective duration is not available.

P/B Ratio TTM

The Price/Book Ratio (or P/B Ratio) for a fund is the weighted average of the P/B Ratio of the stocks in its portfolio. Book value is the total assets of a company, less total liabilities. The P/B ratio of a company is calculated by dividing the market price of its outstanding stock by the company's book value, and then adjusting for the number of shares outstanding. Stocks with negative book values are excluded from this calculation. It shows approximately how much an investor is paying for a company's assets based on historical valuations.

P/C Ratio TTM

The Price/Cash Flow Ratio (or P/C Ratio) for a fund is the weighted average of the P/C Ratio of the stocks in its portfolio. The P/C Ratio of a stock represents the amount an investor is willing to pay for a dollar generated from a company's operations. It shows the ability of a company to generate cash and acts as a gauge of liquidity and solvency.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

P/E Ratio TTM
The Price/Earnings Ratio (or P/E Ratio) for a fund is the weighted average of the P/E Ratios of the stocks in its portfolio. The P/E Ratio of a stock is the stock's current price divided by the company's trailing 12-month earnings per share. A high P/E Ratio usually indicates the market will pay more to obtain the company's earnings because it believes in the company's abilities to increase their earnings. A low P/E Ratio indicates the market has less confidence that the company's earnings will increase, however value investors may believe such stocks have an overlooked or undervalued potential for appreciation.

Percentile Rank in Category
Percentile Rank is a standardized way of ranking items within a peer group, in this case, funds within the same Morningstar Category. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable for returns (high returns), while higher percentile ranks are generally more favorable for risk measures (low risk).

Performance Quartile
Performance Quartile reflects a fund's Morningstar Rank.

Potential Capital Gains Exposure
Potential Capital Gains Exposure is an estimate of the percent of a fund's assets that represent gains. It measures how much the fund's assets have appreciated, and it can be an indicator of possible future capital gains distributions. A positive potential capital gains exposure value means that the fund's holdings have generally increased in value while a negative value means that the fund has reported losses on its book.

Quarterly Returns
Quarterly Return is calculated applying the same methodology as Total Return except it represents return through each quarter-end.

R-Squared
R-squared is the percentage of a security or portfolio's return movements that are explained by movements in its benchmark index, showing the degree of correlation between the security or portfolio and the benchmark. This figure is helpful in assessing how likely it is that beta and alpha are statistically significant. A value of 1 indicates perfect correlation between the security or portfolio and its benchmark. The lower the R-squared value, the lower the correlation.

Regional Exposure
The regional exposure is a display of the portfolio's assets invested in the regions shown on the report.

Sector Weightings
Super Sectors represent Morningstar's broadest classification of equity sectors by assigning the 11 equity sectors into three classifications. The Cyclical Super Sector includes industries significantly impacted by economic shifts, and the stocks included in these sectors generally have betas greater than 1. The Defensive Super Sector generally includes industries that are relatively immune to economic cycles, and the stocks in these industries generally have betas less than 1. The Sensitive Super Sector includes industries that ebb and flow with the overall economy, but not severely so. Stocks in the Sensitive Super Sector generally have betas that are close to 1.

Share Change
Shares Change represents the number of shares of a stock bought or sold by a fund since the previously reported portfolio of the fund.

Sharpe Ratio
Sharpe Ratio uses standard deviation and excess return (a measure of a security or portfolio's return in excess of the U.S. Treasury three-month Treasury Bill) to determine the reward per unit of risk.

Standard Deviation
Standard deviation is a statistical measure of the volatility of the security or portfolio's returns. The larger the standard deviation, the greater the volatility of return.

Standardized Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experience if the security was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Total Return
Total Return, or "Non Load-Adjusted Return", reflects performance without adjusting for sales charges (if applicable) or the effects of taxation, but it is adjusted to reflect all actual ongoing security expenses and assumes reinvestment of dividends and capital gains. It is the return an investor would have experienced if the fund was held throughout the period. If adjusted for sales charges and the effects of taxation, the performance quoted would be significantly reduced.

Total Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Trailing Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experienced if the fund was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Load-Adjusted Monthly Return is calculated applying the same methodology as Standardized Return, except that it represents return through month-end. As with Standardized Return, it reflects the impact of sales charges and ongoing fund expenses, but not taxation. If adjusted for the effects of taxation, the performance quoted would be significantly different.

Trailing Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Investment Risks

International/Emerging Market Equities: Investing in international securities involves special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Sector Strategies: Portfolios that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

to increased industry-specific risks.

Non-Diversified Strategies: Portfolios that invest a significant percentage of assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

Small Cap Equities: Portfolios that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

Mid Cap Equities: Portfolios that invest in companies with market capitalization below $10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

High-Yield Bonds: Portfolios that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

Tax-Free Municipal Bonds: The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

Bonds: Bonds are subject to interest rate risk. As the prevailing level of bond interest rates rise, the value of bonds already held in a portfolio declines. Portfolios that hold bonds are subject to declines and increases in value due to general changes in interest rates.

HOLDRs: The investor should note that these are narrow industry-focused products that, if the industry is hit by hard times, will lack diversification and possible loss of investment would be likely. These securities can trade at a discount to market price, ownership is of a fractional share interest, the underlying investments may not be representative of the particular industry, the HOLDR might be delisted from the AMEX if the number of underlying companies drops below nine, and the investor may experience trading halts.

Hedge Funds: The investor should note that hedge fund investing involves specialized risks that are dependent upon the type of strategies undertaken by the manager. This can include distressed or event-driven strategies, long/short strategies, using arbitrage (exploiting price inefficiencies), international investing, and use of leverage, options and/or derivatives. Although the goal of hedge fund managers may be to reduce volatility and produce positive absolute return under a variety of market conditions, hedge funds may involve a high degree of risk and are suitable only for investors of substantial financial means who could bear the entire loss of their investment.

Bank Loan/Senior Debt: Bank loans and senior loans are impacted by the risks associated with fixed income in general, including interest rate risk and default risk. They are often non-investment grade; therefore, the risk of default is high. These securities are also relatively illiquid. Managed products that invest in bank loans/senior debt are often highly leveraged, producing a high risk of return volatility.

Exchange Traded Notes (ETNs): ETNs are unsecured debt obligations. Any repayment of notes is subject to the issuer's ability to repay its obligations. ETNs do not typically pay interest.

Leveraged ETFs: Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their fund objectives on a daily basis (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e. 200%, 300%, -200%, or -300% or 2X, 3X, -2X, -3X). Compounding has the ability to affect the performance of the fund to be either greater or less than the index performance multiplied by the multiple stated within the funds objective over a stated time period.

Short Positions: When a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

Long-Short: Due to the strategies used by long-short funds, which may include but are not limited to leverage, short selling, short-term trading, and investing in derivatives, these funds may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

Liquidity Risk: Closed-end fund, ETF, and HOLDR trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

Market Price Risk: The market price of ETFs, HOLDRs, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

Market Risk: The market prices of ETFs and HOLDRs can fluctuate as a result of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

Target-Date Funds: Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximate date when investors expect to begin withdrawing their money. A target-date fund's investment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including at the fund's target date.

High double- and triple-digit returns: High double- and triple-digit returns were the result of extremely favorable market conditions, which may not continue to be the case. High returns for short time periods must not be a major factor when making investment decisions.

Benchmark Disclosure

BBgBarc US Agg Bond TR USD
This index is composed of the BarCap Government/Credit Index, the Mortgage-Backed Securities Index, and the Asset-Backed Securities Index. The returns we publish for the index are total returns, which includes the daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core US Aggregate Bond ETF.

BBgBarc US Treasury US TIPS TR USD
BarCap U.S. Treasury TIPS is an unmanaged market index made up of U.S. Treasury Inflation Linked Index securities. The rules to be included in the index are as follows: all bonds must have cash flows linked to an inflation index, the minimum amounts outstanding will be 100 million U.S. dollars, all bonds must be sovereign issues and be denominated in the relevant national currency, and

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

all bonds must have more than one year to maturity. The constituents displayed for this index are from the following proxy: iShares TIPS Bond ETF.

MSCI EAFE NR USD
This Europe, Australasia, and Far East index is a market-capitalization-weighted index of 21 non-U.S., industrialized country indexes.

This disclosure applies to all MSCI indices: Certain information included herein is derived by Morningstar in part from MSCI's Index Constituents (the "Index Data"). However, MSCI has not reviewed any information contained herein and does not endorse or express any opinion such information or analysis. MSCI does not make any express or implied warranties, representations or guarantees concerning the Index Data or any information or data derived therefrom, and in no event will MSCI have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of this information.

S&P 500 TR USD
A market capitalization-weighted index composed of the 500 most widely held stocks whose assets and/or revenues are based in the US; it's often used as a proxy for the U.S. stock market. TR (Total Return) indexes include daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: SPDR® S&P 500 ETF Trust.

USTREAS T-Bill Auction Ave 3 Mon
Three-month T-bills are government-backed, short-term investments considered to be risk-free and as good as cash because the maturity is only three months. Morningstar collects yields on the T-bill on a weekly basis from the Wall Street Journal.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Vanguard Emerging Markets Government Bond Index Fund Institutional Shares (VGIVX)

Firm Background*

The Vanguard Group, Inc. is one of the largest providers of low-cost mutual funds and index-tracking products. Jack Bogle founded Vanguard in 1975 with the philosophy that low costs are crucial to generate consistently attractive investment performance. Vanguard was the first firm to provide widespread passive index products to retail investors. Over time, Vanguard expanded its product set to include various asset classes and actively managed funds. Vanguard's active products are either managed internally or subadvised by external asset managers. Equity strategies represent more than two-thirds of firm assets, fixed income strategies account for approximately 25% of assets, and cash and multi-asset strategies comprise the balance of assets. The firm's client mix is approximately 60% institutional and 40% retail investors.

Headquartered in Malvern, PA, Vanguard employs over 17,000 people. The firm has offices around the world, but investment management is concentrated in a limited number of them (Malvern; Melbourne, Australia; and London, UK). The firm is owned by its own investment funds, which are, in turn, owned by their shareholders. As a result, Vanguard's fund investors indirectly own the firm. Fund management fees pay for the firm's expenses and Vanguard reinvests profits to lower future expense ratios. Effective January 1, 2018, Tim Buckley succeeded William McNabb as Vanguard's Chief Executive Officer. Mr. Buckley joined the firm in 1991 and has held a number of senior leadership positions during his tenure. Mr. McNabb will remain chairman of Vanguard's board, a role he has held since 2009.

Organization: Satisfactory (4 out of 5)*

Vanguard has a decades-long legacy of client service and thoughtful product development that dates to its founding as an indexing provider. It launches funds after thorough consideration of where it believes product offerings are consistent with investor interests as well as the firm's philosophy and long-term focus. In our view, Vanguard's mutual fund ownership structure has both advantages and disadvantages. For instance, the firm's trademark low fees provide Vanguard with a persistent return advantage over peers, which contributes to the strength of the franchise. These low fees are a direct result of the ownership structure, which has also greatly contributed to the firm's considerable level of assets under management. On the other hand, a disadvantage of the firm's ownership structure is that it does not allow employees to benefit from a profit sharing or equity compensation scheme; although, Vanguard does make use of deferred bonus compensation for key executives and investment professionals. The firm actively rotates senior employees across roles and disciplines. While this may result in longevity and broad perspectives, it reduces specialization and tenure in the roles left behind. Vanguard has experienced tremendous growth over the past decade to become one of the world's largest asset managers. Along with this growth, the firm has had to address the issues that often accompany a significant increase in AUM.

Strategy**

Vanguard Emerging Markets Government Bond Index Fund seeks to track the performance of a benchmark index that measures the investment return of U.S. dollar-denominated bonds issued by governments and government related issuers in emerging markets countries.

The fund employs an indexing investment approach designed to track the performance of the Bloomberg Barclays USD Emerging Markets Government RIC Capped Index. The index includes U.S. dollar-

denominated bonds that have maturities longer than one year and that were issued by emerging market governments and government agencies, as well as government-owned corporations.

The fund invests by sampling the index, meaning that it holds a range of securities that, in the aggregate, approximates the full index in terms of key risk factors and other characteristics. All of the fund's investments will be selected through the sampling process, and at least 80% of the fund's assets will be invested in bonds included in the index. The fund maintains a dollar-weighted average maturity consistent with that of the index, which generally ranges between 10 and 15 years.

Summary

This fund has not been rated by Morningstar, Inc.

Performance

This fund has not been rated by Morningstar, Inc.

Price

This fund has not been rated by Morningstar, Inc.

Process

This fund has not been rated by Morningstar, Inc.

People

This fund has not been rated by Morningstar, Inc.

* Source: BNY Mellon Manager Research Group, as of December 2019
** Source: Vanguard Group, Inc., as of 6/30/2020

Release date 07-31-2020 | Note: Portions of the analysis are based on pre-inception returns. Please read disclosure for more information. Page 1 of 11

Vanguard Emerging Mkts Govt Bd Idx Instl (USD)

Morningstar Quantitative Rating™ Gold 06-30-2020

Overall Morningstar Rating™ ★★★★★ 236 US Fund Emerging Markets Bond

Standard Index BBgBarc US Agg Bond TR USD

Category Index JPM EMBI Global Diversified TR USD

Morningstar Cat US Fund Emerging Markets Bond

Performance 07-31-2020

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2018	-1.71	-2.62	1.76	-0.20	-2.80
2019	5.60	4.14	1.48	2.18	14.02
2020	-12.61	11.63	—	—	1.33

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	3.74	4.67	5.76	—	5.72
Std 06-30-2020	1.15	—	5.04	—	5.07
Total Return	3.74	4.67	5.76	—	5.72
+/- Std Index	-6.39	-1.02	1.29	—	—
+/- Cat Index	0.76	0.10	-0.20	—	—
% Rank Cat	14	9	8	—	
No. in Cat	277	236	184	—	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 07-27-20	4.10	4.06

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-749-7447 or visit www.vanguard.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.22
12b1 Expense %	NA
Net Expense Ratio %	**0.23**
Gross Expense Ratio %	**0.23**

Risk and Return Profile

	3 Yr 236 funds	5 Yr 184 funds	10 Yr 58 funds
Morningstar Rating™	5★	5★	—
Morningstar Risk	-Avg	-Avg	—
Morningstar Return	High	High	—

	3 Yr	5 Yr	10 Yr
Standard Deviation	9.94	8.42	—
Mean	4.67	5.76	—
Sharpe Ratio	0.35	0.57	—

MPT Statistics	Standard Index	Best Fit Index JPM EMBI Global Diversified TR USD
Alpha	-0.89	0.26
Beta	1.09	0.93
R-Squared	13.40	98.94
12-Month Yield		4.55%
Potential Cap Gains Exp		2.18%

Investment Style Fixed Income Bond %

Growth of $10,000
- Vanguard Emerging Mkts Govt Bd Idx Instl 13,883
- Category Average 11,513
- Standard Index 13,115

Performance Quartile (within category)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	07-20	History
	—	—	—	—	—	—	29.76	31.20	32.30	30.03	32.66	32.22	NAV/Price
	—	—	—	—	—	5.13	1.55	9.91	6.47	-2.80	14.02	1.33	Total Return %
	—	—	—	—	—	-0.84	1.00	7.27	4.93	-2.81	5.30	-6.39	+/- Standard Index
	—	—	—	—	—	-2.30	0.37	-0.24	-1.78	1.46	-1.01	0.48	+/- Category Index
	—	—	—	—	—	—	—	57	80	21	35	—	% Rank Cat
	—	—	—	—	—	—	—	279	295	295	286	278	No. of Funds in Cat

Portfolio Analysis 06-30-2020

Asset Allocation %	Net %	Long %	Short %
Cash	0.01	0.01	0.00
US Stocks	0.00	0.00	0.00
Non-US Stocks	0.00	0.00	0.00
Bonds	99.99	99.99	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style (Value / Blend / Growth; Large / Med / Sm)

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	—	—	—
P/C Ratio TTM	—	—	—
P/B Ratio TTM	—	—	—
Geo Avg Mkt Cap $mil	—	—	—

Fixed-Income Style (Ltd / Mod / Ext; Low / Mod / High)

Avg Eff Maturity	13.50
Avg Eff Duration	7.92
Avg Wtd Coupon	5.29
Avg Wtd Price	—

Credit Quality Breakdown 06-30-2020

	Bond %
AAA	-0.46
AA	7.88
A	19.25
BBB	31.14
BB	0.00
B	0.00
Below B	42.19
NR	0.00

Regional Exposure	Stocks %	Rel Std Index
Americas	—	—
Greater Europe	—	—
Greater Asia	—	—

Share Chg since 05-2020	Share Amount	Holdings: 0 Total Stocks, 704 Total Fixed-Income, 48% Turnover Ratio	Net Assets %
⊕	11 mil	Qatar St 5.1%	0.76
⊕	13 mil	Saudi Arabia (Kingdom Of) 4.5%	0.75
⊕	11 mil	Qatar St 4.82%	0.74
⊕	11 mil	Russia Fedn Ministry Fin 5.25%	0.73
⊕	14 mil	Petroleos Mexicanos 7.69%	0.62
	9 mil	State of Qatar 4.4%	0.57
	9 mil	KSA Sukuk Limited 3.63%	0.53
⊕	8 mil	Kuwait St 3.5%	0.49
⊕	10 mil	Petroleos Mexicanos 6.5%	0.47
⊕	8 mil	Republic of Colombia 5%	0.47
	7 mil	Uruguay (Republic of) 5.1%	0.46
	7 mil	Russian Federation 5.1%	0.46
⊕	8 mil	Saudi Arabia (Kingdom Of) 4.62%	0.46
⊕	8 mil	Brazil (Federative Republic) 4.25%	0.43
⊖	7 mil	State of Qatar 4%	0.42

Sector Weightings	Stocks %	Rel Std Index
Cyclical	—	—
Basic Materials	—	—
Consumer Cyclical	—	—
Financial Services	—	—
Real Estate	—	—
Sensitive	—	—
Communication Services	—	—
Energy	—	—
Industrials	—	—
Technology	—	—
Defensive	—	—
Consumer Defensive	—	—
Healthcare	—	—
Utilities	—	—

Operations

Family:	Vanguard	Base Currency:	USD	Purchase Constraints:	—
Manager:	Joshua Barrickman	Ticker:	VGIVX	Incept:	02-11-2015
Tenure:	7.3 Years	ISIN:	US9219467035	Type:	MF
Objective:	Government Bond - General	Minimum Initial Purchase:	$5 mil	Total Assets:	$2,026.62 mil

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Standardized and Tax Adjusted Returns Disclosure Statement

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end please visit http://advisor.morningstar.com/familyinfo.asp.

Standardized Returns assume reinvestment of dividends and capital gains. They depict performance without adjusting for the effects of taxation, but are adjusted to reflect sales charges and ongoing fund expenses.

If adjusted for taxation, the performance quoted would be significantly reduced. For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges. The maximum redemption fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase.

After-tax returns are calculated using the highest individual federal marginal income tax rates, and do not reflect the impact of state and local taxes. Actual after-tax returns depend on the investor's tax situation and may differ from those shown. The after-tax returns shown are not relevant to investors who hold their fund shares through tax-deferred arrangements such as 401(k) plans or an IRA. After-tax returns exclude the effects of either the alternative minimum tax or phase-out of certain tax credits. Any taxes due are as of the time the distributions are made, and the taxable amount and tax character of each distribution are as specified by the fund on the dividend declaration date. Due to foreign tax credits or realized capital losses, after-tax returns may be greater than before-tax returns. After-tax returns for exchange-traded funds are based on net asset value.

Money Market Fund Disclosures

If money market fund(s) are included in the Standardized Returns table below, each money market fund's name will be followed by a superscripted letter that links it to the applicable disclosure below:

Institutional Money Market Funds (designated by an "S"):

You could lose money by investing in the fund. Because the share price of the fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "L") and

Retail Money Market Funds (designated by an "L"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen not to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "N"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Annualized returns 06-30-2020

Standardized Returns (%)	7-day Yield Subsidized as of date	7-day Yield Unsubsidized as of date	YTD	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
Vanguard Emerging Mkts Govt Bd Idx Instl	—	—	1.15	5.04	—	5.07	02-11-2015	NA	NA	0.23	0.23	NA
BBgBarc US Agg Bond TR USD			**8.74**	**4.30**	**3.82**	**—**	**01-03-1980**					
JPM EMBI Global Diversified TR USD			**0.49**	**5.30**	**6.03**	**—**	**07-30-1999**					
MSCI EAFE NR USD			**-5.13**	**2.05**	**5.73**	**—**	**03-31-1986**					
S&P 500 TR USD			**7.51**	**10.73**	**13.99**	**—**	**09-11-1989**					
USTREAS T-Bill Auction Ave 3 Mon			**1.26**	**1.17**	**0.62**	**—**	**02-28-1941**					

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distribution is made. The information, data, analyses and opinions contained herein: (1) contain the confidential and proprietary information of Morningstar; (2) may include, or be based from, accurate information provided to you from financial professionals which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplementary sales literature. If applicable it must be preceded or accompanied by a prospectus, or summary and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR

Annualized returns 06-30-2020

Return after Tax (%)	On Distribution					On Distribution and Sales of Shares			
	1Yr	5Yr	10Yr	Since Inception	Inception Date	1Yr	5Yr	10Yr	Since Inception
Vanguard Emerging Mkts Govt Bd Idx Instl	-0.77	3.00	—	3.01	02-11-2015	0.67	2.95	—	2.96

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Mutual Fund Detail Report Disclosure Statement

The Mutual Fund Detail Report is supplemental sales literature, and therefore must be preceded or accompanied by the mutual fund's current prospectus or an equivalent statement. Please read this information carefully. In all cases, this disclosure statement should accompany the Mutual Fund Detail Report. Morningstar is not itself a FINRA-member firm.

All data presented is based on the most recent information available to Morningstar as of the release date and may or may not be an accurate reflection of current data for securities included in the fund's portfolio. There is no assurance that the data will remain the same.

Unless otherwise specified, the definition of "funds" used throughout this Disclosure Statement includes closed-end funds, exchange-traded funds, grantor trusts, index mutual funds, open-ended mutual funds, and unit investment trusts. It does not include exchange-traded notes or exchange-traded commodities.

Prior to 2016, Morningstar's methodology evaluated open-end mutual funds and exchange-traded funds as separate groups. Each group contained a subset of the current investments included in our current comparative analysis. In this report, historical data presented on a calendar-year basis and trailing periods ending at the most-recent month-end reflect the updated methodology.

Risk measures (such as alpha, beta, r-squared, standard deviation, mean, or Sharpe ratio) are calculated for securities or portfolios that have at least a three-year history.

Most Morningstar rankings do not include any adjustment for one-time sales charges, or loads. Morningstar does publish load-adjusted returns, and ranks such returns within a Morningstar Category in certain reports. The total returns for ETFs and fund share classes without one-time loads are equal to Morningstar's calculation of load-adjusted returns. Share classes that are subject to one-time loads relating to advice or sales commissions have their returns adjusted as part of the load-adjusted return calculation to reflect those loads.

Comparison of Fund Types

Funds, including closed-end funds, exchange-traded funds (ETFs), money market funds, open-end funds, and unit investment trusts (UITs), have many similarities, but also many important differences. In general, publically-offered funds are investment companies registered with the Securities and Exchange Commission under the Investment Company Act of 1940, as amended. Funds pool money from their investors and manage it according to an investment strategy or objective, which can vary greatly from fund to fund. Funds have the ability to offer diversification and professional management, but also involve risk, including the loss of principal.

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. A closed-end mutual fund's expense ratio is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Closed-end funds may also have 12b-1 fees. Income distributions and capital gains of the closed-end fund are subject to income tax, if held in a taxable account.

An ETF is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, an ETF can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. ETFs are not actively managed, so their value may be affected by a general decline in the U.S. market segments relating to their underlying indexes. Similarly, an imperfect match between an ETF's holdings and those of its underlying index may cause its performance to vary from that of its underlying index. The expense ratio of an ETF is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. ETFs do not have 12b-1 fees or sales loads. Capital gains from funds held in a taxable account are subject to income tax. In many, but not all cases, ETFs are generally considered to be more tax-efficient when compared to similarly invested mutual funds.

Holding company depository receipts (HOLDRs) are similar to ETFs, but they focus on narrow industry groups. HOLDRs initially own 20 stocks, which are unmanaged, and can become more concentrated due to mergers, or the disparate performance of their holdings. HOLDRs can only be bought in 100-share increments. Investors may exchange shares of a HOLDR for its underlying stocks at any time.

A money-market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and are not guaranteed by a bank or other financial institution.

An open-end fund is an investment company that issues shares on a continuous basis. Shares can be purchased from the open-end mutual fund itself, or through an intermediary, but cannot be traded on a secondary market, such as the New York Stock Exchange. Investors pay the open-end mutual fund's current net asset value plus any initial sales loads. Net asset value is calculated daily, at the close of business. Open-end mutual fund shares can be redeemed, or sold back to the fund or intermediary, at their current net asset value minus any deferred sales loads or redemption fees. The expense ratio for an open-end mutual fund is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Open-end funds may also have 12b-1 fees. Income distributions and capital gains of the open-end fund are subject to income tax, if held in a taxable account.

A unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units. A one-time initial sales charge is deducted from an investment made into the trust. UIT investors may also pay creation and development fees, organization costs, and/or trustee and operation expenses. UIT units may be redeemed by the sponsor at their net

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

asset value minus a deferred sales charge, and sold to other investors. UITs have set termination dates, at which point the underlying securities are sold and the sales proceeds are paid to the investor. Typically, a UIT investment is rolled over into successive trusts as part of a long-term strategy. A rollover fee may be charged for the exercise of rollover purchases. There are tax consequences associated with rolling over an investment from one trust to the next.

Performance

The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares, when sold, may be worth more or less than the original investment. Fund portfolio statistics change over time. Funds are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution.

Morningstar calculates after-tax returns using the highest applicable federal marginal income tax rate plus the investment income tax and Medicare surcharge. As of 2018, this rate is 37% plus 3.8% investment income plus 0.9% Medicare surcharge, or 41.7%. This rate changes periodically in accordance with changes in federal law.

Pre-Inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the inception of the share class of the fund shown in this report ("Report Share Class"). If pre-inception returns are shown, a performance stream consisting of the Report Share Class and older share class(es) is created. Morningstar adjusts pre-inception returns downward to reflect higher expenses in the Report Share Class, we do not hypothetically adjust returns upwards for lower expenses. For more information regarding calculation of pre-inception returns please see the Morningstar Extended Performance Methodology.

When pre-inception data is presented in the report, the header at the top of the report will indicate this. In addition, the pre-inception data included in the report will appear in italics.

While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of newer share classes of a fund, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. For example, the fee structures of a retail share class will vary from that of an institutional share class, as retail shares tend to have higher operating expenses and sales charges. These adjusted historical returns are not actual returns. The underlying investments in the share classes used to calculate the pre-performance string will likely vary from the underlying investments held in the fund after inception. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the fund itself.

12b1 Expense %

A 12b-1 fee is a fee used to pay for a mutual fund's distribution costs. It is often used as a commission to brokers for selling the fund. The amount of the fee is taken from a fund's returns.

Alpha

Alpha is a measure of the difference between a security or portfolio's actual returns and its expected performance, given its level of risk (as measured by beta.) Alpha is often seen as a measure of the value added or subtracted by a portfolio manager.

Asset Allocation

Asset Allocation reflects asset class weightings of the portfolio. The "Other" category includes security types that are not neatly classified in the other asset classes, such as convertible bonds and preferred stocks, or cannot be classified by Morningstar as a result of missing data. Morningstar may display asset allocation data in several ways, including tables or pie charts. In addition, Morningstar may compare the asset class breakdown of the fund against its three-year average, category average, and/or index proxy.

Asset allocations shown in tables may include a breakdown among the long, short, and net (long positions net of short) positions. These statistics summarize what the fund's managers are buying and how they are positioning the fund's portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the fund's exposure and risk. Long positions involve buying the security outright and selling it later, with the hope the security's price rises over time. Short positions are taken with the hope of benefitting from anticipated price declines. The investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience a loss buying it at a higher price than the sale price.

Most fund portfolios hold fairly conventional securities, such as long positions in equities and bonds. Morningstar may generate a colored pie chart for these portfolios. Other portfolios use other investment strategies or securities, such as short positions or derivatives, in an attempt to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while other have unique return and risk characteristics. Portfolios that incorporate investment strategies resulting in short positions or portfolio with relatively exotic derivative positions often report data to Morningstar that does not meet the parameters of the calculation underlying a pie chart's generation. Because of the nature of how these securities are reported to Morningstar, we may not always get complete portfolio information to report asset allocation. Morningstar, at its discretion, may determine if unidentified characteristics of fund holdings are material. Asset allocation and other breakdowns may be rescaled accordingly so that percentages total to 100 percent. (Morningstar used discretion to determine if unidentified characteristics of fund holdings are material, pie charts and other breakdowns may rescale identified characteristics to 100% for more intuitive presentation.)

Note that all other portfolio statistics presented in this report are based on the long (or long rescaled) holdings of the fund only.

Average Effective Duration

Duration is a time measure of a bond's interest-rate sensitivity. Average effective duration is a weighted average of the duration of the fixed-income securities within a portfolio.

Average Effective Maturity

Average Effective Maturity is a weighted average of the maturities of all bonds in a portfolio.

Average Weighted Coupon

A coupon is the fixed annual percentage paid out on a bond. The average weighted coupon is the asset-weighted coupon of each bond in the portfolio.

Average Weighted Price

Average Weighted Price is the asset-weighted price of bonds held in a portfolio, expressed as a percentage of par (face) value. This number reveals if the portfolio favors bonds selling at prices above or below par value (premium or discount securities respectively.)

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Best Fit Index
Alpha, beta, and R-squared statistics are presented for a broad market index and a "best fit" index. The Best Fit Index identified in this report was determined by Morningstar by calculating R-squared for the fund against approximately 100 indexes tracked by Morningstar. The index representing the highest R-squared is identified as the best fit index. The best fit index may not be the fund's benchmark, nor does it necessarily contain the types of securities that may be held by the fund or portfolio.

Beta
Beta is a measure of a security or portfolio's sensitivity to market movements (proxied using an index.) A beta of greater than 1 indicates more volatility than the market, and a beta of less than 1 indicates less volatility than the market.

Credit Quality Breakdown
Credit Quality breakdowns are shown for corporate-bond holdings in the fund's portfolio and depict the quality of bonds in the underlying portfolio. It shows the percentage of fixed-income securities that fall within each credit-quality rating as assigned by a Nationally Recognized Statistical Rating Organization (NRSRO). Bonds not rated by an NRSRO are included in the Other/Not-Classified category.

Deferred Load %
The back-end sales charge or deferred load is imposed when an investor redeems shares of a fund. The percentage of the load charged generally declines the longer the fund's shares are held by the investor. This charge, coupled with 12b-1 fees, commonly serves as an alternative to a traditional front-end load.

Expense Ratio %
The expense ratio is the annual fee that all funds charge their shareholders. It expresses the percentage of assets deducted each fiscal year for fund expenses, including 12b-1 fees, management fees, administrative fees, operating costs, and all other asset-based costs incurred by the fund. Portfolio transaction fees, or brokerage costs, as well as front-end or deferred sales charges are not included in the expense ratio. The expense ratio, which is deducted from the fund's average net assets, is accrued on a daily basis. The gross expense ratio, in contrast to the net expense ratio, does not reflect any fee waivers in effect during the time period.

Front-end Load %
The initial sales charge or front-end load is a deduction made from each investment in the fund and is generally based on the amount of the investment.

Geometric Average Market Capitalization
Geometric Average Market Capitalization is a measure of the size of the companies in which a portfolio invests.

Growth of 10,000
For funds, this graph compares the growth of an investment of 10,000 (in the base currency of the fund) with that of an index and/or with that of the average for all funds in its Morningstar Category. The total returns are not adjusted to reflect sales charges or the effects of taxation but are adjusted to reflect actual ongoing fund expenses, and they assume reinvestment of dividends and capital gains. If adjusted, effects of sales charges and taxation would reduce the performance quoted. If pre-inception data is included in the analysis, it will be graphed.

The index in the Growth of 10,000 graph is an unmanaged portfolio of specified securities and cannot be invested in directly. The index does not reflect any initial or ongoing expenses. A fund's portfolio may differ significantly from the securities in the index. The index is chosen by Morningstar.

Management Fees %
The management fee includes the management and administrative fees listed in the Management Fees section of a fund's prospectus. Typically, these fees represent the costs shareholders paid for management and administrative services over the fund's prior fiscal year.

Maximum Redemption Fee %
The Maximum Redemption Fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase (for example, 30, 180, or 365 days).

Mean
Mean is the annualized geometric return for the period shown.

Morningstar Analyst Rating™
Effective October 31, 2019, Morningstar updated its Morningstar Analyst Rating™ methodology. For any Morningstar Analyst Rating published on or prior to October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark, or in the case of exchange-traded funds and index mutual funds, a relevant peer group, over the long term on a risk-adjusted basis. They consider quantitative and qualitative factors in their research, and the weight of each pillar may vary. The Analyst Rating scale is Gold, Silver, Bronze, Neutral, and Negative. A Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's conviction in a fund's prospects for outperformance. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at east every 14 months. For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to global.morningstar.com/managerdisclosures/.

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

For any Morningstar Analyst Rating published after October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five-pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark over the long term on a risk adjusted basis. They consider quantitative and qualitative factors in their research. For actively managed strategies, people and process each receive a 45% weighting in their analysis, while parent receives a 10% weighting. For passive strategies, process receives an 80% weighting, while people and parent each receive a

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

10% weighting. For both active and passive strategies, performance has no explicit weight as it is incorporated into the analysis of people and process; price at the share-class level (where applicable) is directly subtracted from an expected gross alpha estimate derived from the analysis of the other pillars. The impact of the weighted pillar scores for people, process and parent on the final Analyst Rating is further modified by a measure of the dispersion of historical alphas among relevant peers. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, the modification by alpha dispersion is not used.

For active funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that an active fund will be able to deliver positive alpha net of fees relative to the standard benchmark index assigned to the Morningstar category. The level of the rating relates to the level of expected positive net alpha relative to Morningstar category peers for active funds. For passive funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will be able to deliver a higher alpha net of fees than the lesser of the relevant Morningstar category median or 0. The level of the rating relates to the level of expected net alpha relative to Morningstar category peers for passive funds. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will deliver a weighted pillar score above a predetermined threshold within its peer group. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at least every 14 months.

For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

Morningstar Quantitative Rating™

Morningstar's quantitative fund ratings consist of: (i) Morningstar Quantitative Rating (overall score), (ii) Quantitative Parent pillar, (iii) Quantitative People pillar, and (iv) Quantitative Process pillar (collectively the "Quantitative Fund Ratings".).The Quantitative Fund Ratings are calculated monthly and derived from the analyst-driven ratings of a fund's peers as determined by statistical algorithms. Morningstar, Inc. calculates Quantitative Fund Ratings for funds when an analyst rating does not exist as part of its qualitative coverage.

- ***Morningstar Quantitative Rating:*** Intended to be comparable to Morningstar's Analyst Ratings for open-end funds and ETFs, which is the summary expression of Morningstar's forward-looking analysis of a fund. The Morningstar Analyst Rating is based on the analyst's conviction in the fund's ability to outperform its peer group and/or relevant benchmark on a risk-adjusted basis over a full market cycle of at least 5 years. Ratings are assigned on a five-tier scale with three positive ratings of Gold, Silver, and Bronze, a Neutral rating, and a Negative rating. Morningstar calculates the Morningstar Quantitative Rating using a statistical model derived from the Morningstar Analyst Rating our fund analysts assign to open-end funds and ETFs. Please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx for information about Morningstar Analyst Rating Morningstar's fund analysts assign to funds.

- ***Quantitative Parent pillar:*** Intended to be comparable to Morningstar's Parent pillar scores, which provides Morningstar's analyst opinion on the stewardship quality of a firm. Morningstar calculates the Quantitative Parent pillar using an algorithm designed to predict the Parent Pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative People pillar:*** Morningstar's People pillar scores, which provides Morningstar's analyst opinion on the fund manager's talent, tenure, and resources. Morningstar calculates the Quantitative People pillar using an algorithm designed to predict the People pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative Process Pillar:*** Intended to be comparable to Morningstar's Process pillar scores, which provides Morningstar's analyst opinion on the fund's strategy and whether the management has a competitive advantage enabling it to execute the process and consistently over time. Morningstar calculates the Quantitative Process pillar using an algorithm designed to predict the Process pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), and Low (1).

Morningstar Quantitative Ratings **have not been made available** to the issuer of the security prior to publication.

Risk Warning

The quantitative fund ratings are not statements of fact. Morningstar does not guarantee the completeness or accuracy of the assumptions or models used in determining the quantitative fund ratings. In addition, there is the risk that the return target will not be met due to such things as unforeseen changes in changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, and tax rate. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions. A change in the fundamental factors underlying the quantitative fund ratings can mean that the recommendation is subsequently no longer accurate.

For more information about Morningstar's quantitative methodology, please visit https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

Morningstar Category

Morningstar Category is assigned by placing funds into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a fund's prospectus may not be sufficiently detailed for our proprietary classification methodology. Funds are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the fund is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

Morningstar Rank

Morningstar Rank is the total return percentile rank within each Morningstar Category. The highest (or most favorable) percentile rank is zero and the lowest (or least favorable) percentile rank is 100. Historical percentile ranks are based on a snapshot of a fund at the time of calculation.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Morningstar Rating™

The Morningstar Rating™for funds, or "star rating", is calculated for funds and separate accounts with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The Morningstar Rating does not include any adjustment for sales loads. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. For more information about the Morningstar Rating for funds, including its methodology, please go to global.morningstar.com/managerdisclosures

The Morningstar Return rates a fund's performance relative to other managed products in its Morningstar Category. It is an assessment of a product's excess return over a risk-free rate (the return of the 90-day Treasury Bill) in comparison with the products in its Morningstar category. In each Morningstar category, the top 10% of products earn a High Morningstar Return (High), the next 22.5% Above Average (+Avg), the middle 35% Average (Avg), the next 22.5% Below Average (-Ave), and the bottom 10% Low (Low). Morningstar Return is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Risk

Morningstar Risk evaluates a fund's downside volatility relative to that of other products in its Morningstar Category. It is an assessment of the variations in monthly returns, with an emphasis on downside variations, in comparison with the products in its Morningstar category. In each Morningstar category, the 10% of products with the lowest measured risk are described as Low Risk (Low), the next 22.5% Below Average (-Avg), the middle 35% Average (Avg), the next 22.5% Above Average (+Avg), and the top 10% High (High). Morningstar Risk is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Style Box™

The Morningstar Style Box™ reveals a fund's investment strategy as of the date noted on this report.

For equity funds, the vertical axis shows the market capitalization of the long stocks owned, and the horizontal axis shows the investment style (value, blend, or growth.) A darkened square in the style box indicates the weighted average style of the portfolio.

For fixed-income funds, the vertical axis shows the credit quality of the long bonds owned and the horizontal axis shows interest-rate sensitivity as measured by a bond's effective duration. Morningstar seeks credit rating information from fund companies on a periodic basis (for example, quarterly). In compiling credit rating information, Morningstar accepts credit ratings reported by fund companies that have been issued by all Nationally Recognized Statistical Rating Organizations. For a list of all NRSROs, please visit http://www.sec.gov/divisions/marketreg/ ratingagency.htm. Additionally, Morningstar accepts foreign credit ratings from widely recognized or registered rating agencies. If two rating organizations/ agencies have rated a security, fund companies are to report the lower rating; if three or more organizations/agencies have rated a security, fund companies are to report the median rating; and in cases where there are more than two organization/agency ratings and a median rating does not exist, fund companies are to use the lower of the two middle ratings.

Please Note: Morningstar, Inc. is not an NRSRO nor does it issue a credit rating on the fund. NRSRO or rating agency ratings can change from time to time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low," "medium," or "high" based on their average credit quality. Funds with a "low" credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; "medium" are those less than "AA-", but greater or equal to "BBB-"; and "high" are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index, which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal-bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases, static breakpoints are used. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-U.S. taxable and non-U.S. domiciled fixed-income funds, static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: more than 3.5 years but less than or equal to 6 years; (iii) Extensive: more than 6 years.

Interest-rate sensitivity for non-U.S. domiciled funds (excluding funds in convertible categories) may be measured with modified duration when effective duration is not available.

P/B Ratio TTM

The Price/Book Ratio (or P/B Ratio) for a fund is the weighted average of the P/B Ratio of the stocks in its portfolio. Book value is the total assets of a company, less total liabilities. The P/B ratio of a company is calculated by dividing the market price of its outstanding stock by the company's book value, and then adjusting for the number of shares outstanding. Stocks with negative book values are excluded from this calculation. It shows approximately how much an investor is paying for a company's assets based on historical valuations.

P/C Ratio TTM

The Price/Cash Flow Ratio (or P/C Ratio) for a fund is the weighted average of the P/C Ratio of the stocks in its portfolio. The P/C Ratio of a stock represents the amount an investor is willing to pay for a dollar generated from a company's operations. It shows the ability of a company to generate cash and acts as a gauge of liquidity and solvency.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

P/E Ratio TTM
The Price/Earnings Ratio (or P/E Ratio) for a fund is the weighted average of the P/E Ratios of the stocks in its portfolio. The P/E Ratio of a stock is the stock's current price divided by the company's trailing 12-month earnings per share. A high P/E Ratio usually indicates the market will pay more to obtain the company's earnings because it believes in the company's abilities to increase their earnings. A low P/E Ratio indicates the market has less confidence that the company's earnings will increase, however value investors may believe such stocks have an overlooked or undervalued potential for appreciation.

Percentile Rank in Category
Percentile Rank is a standardized way of ranking items within a peer group, in this case, funds within the same Morningstar Category. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable for returns (high returns), while higher percentile ranks are generally more favorable for risk measures (low risk).

Performance Quartile
Performance Quartile reflects a fund's Morningstar Rank.

Potential Capital Gains Exposure
Potential Capital Gains Exposure is an estimate of the percent of a fund's assets that represent gains. It measures how much the fund's assets have appreciated, and it can be an indicator of possible future capital gains distributions. A positive potential capital gains exposure value means that the fund's holdings have generally increased in value while a negative value means that the fund has reported losses on its book.

Quarterly Returns
Quarterly Return is calculated applying the same methodology as Total Return except it represents return through each quarter-end.

R-Squared
R-squared is the percentage of a security or portfolio's return movements that are explained by movements in its benchmark index, showing the degree of correlation between the security or portfolio and the benchmark. This figure is helpful in assessing how likely it is that beta and alpha are statistically significant. A value of 1 indicates perfect correlation between the security or portfolio and its benchmark. The lower the R-squared value, the lower the correlation.

Regional Exposure
The regional exposure is a display of the portfolio's assets invested in the regions shown on the report.

Sector Weightings
Super Sectors represent Morningstar's broadest classification of equity sectors by assigning the 11 equity sectors into three classifications. The Cyclical Super Sector includes industries significantly impacted by economic shifts, and the stocks included in these sectors generally have betas greater than 1. The Defensive Super Sector generally includes industries that are relatively immune to economic cycles, and the stocks in these industries generally have betas less than 1. The Sensitive Super Sector includes industries that ebb and flow with the overall economy, but not severely so. Stocks in the Sensitive Super Sector generally have betas that are close to 1.

Share Change
Shares Change represents the number of shares of a stock bought or sold by a fund since the previously reported portfolio of the fund.

Sharpe Ratio
Sharpe Ratio uses standard deviation and excess return (a measure of a security or portfolio's return in excess of the U.S. Treasury three-month Treasury Bill) to determine the reward per unit of risk.

Standard Deviation
Standard deviation is a statistical measure of the volatility of the security or portfolio's returns. The larger the standard deviation, the greater the volatility of return.

Standardized Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experience if the security was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Total Return
Total Return, or "Non Load-Adjusted Return", reflects performance without adjusting for sales charges (if applicable) or the effects of taxation, but it is adjusted to reflect all actual ongoing security expenses and assumes reinvestment of dividends and capital gains. It is the return an investor would have experienced if the fund was held throughout the period. If adjusted for sales charges and the effects of taxation, the performance quoted would be significantly reduced.

Total Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Trailing Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experienced if the fund was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Load-Adjusted Monthly Return is calculated applying the same methodology as Standardized Return, except that it represents return through month-end. As with Standardized Return, it reflects the impact of sales charges and ongoing fund expenses, but not taxation. If adjusted for the effects of taxation, the performance quoted would be significantly different.

Trailing Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Investment Risks

International/Emerging Market Equities: Investing in international securities involves special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Sector Strategies: Portfolios that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

to increased industry-specific risks.

Non-Diversified Strategies: Portfolios that invest a significant percentage of assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

Small Cap Equities: Portfolios that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

Mid Cap Equities: Portfolios that invest in companies with market capitalization below $10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

High-Yield Bonds: Portfolios that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

Tax-Free Municipal Bonds: The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

Bonds: Bonds are subject to interest rate risk. As the prevailing level of bond interest rates rise, the value of bonds already held in a portfolio declines. Portfolios that hold bonds are subject to declines and increases in value due to general changes in interest rates.

HOLDRs: The investor should note that these are narrow industry-focused products that, if the industry is hit by hard times, will lack diversification and possible loss of investment would be likely. These securities can trade at a discount to market price, ownership is of a fractional share interest, the underlying investments may not be representative of the particular industry, the HOLDR might be delisted from the AMEX if the number of underlying companies drops below nine, and the investor may experience trading halts.

Hedge Funds: The investor should note that hedge fund investing involves specialized risks that are dependent upon the type of strategies undertaken by the manager. This can include distressed or event-driven strategies, long/short strategies, using arbitrage (exploiting price inefficiencies), international investing, and use of leverage, options and/or derivatives. Although the goal of hedge fund managers may be to reduce volatility and produce positive absolute return under a variety of market conditions, hedge funds may involve a high degree of risk and are suitable only for investors of substantial financial means who could bear the entire loss of their investment.

Bank Loan/Senior Debt: Bank loans and senior loans are impacted by the risks associated with fixed income in general, including interest rate risk and default risk. They are often non-investment grade; therefore, the risk of default is high. These securities are also relatively illiquid. Managed products that invest in bank loans/senior debt are often highly leveraged, producing a high risk of return volatility.

Exchange Traded Notes (ETNs): ETNs are unsecured debt obligations. Any repayment of notes is subject to the issuer's ability to repay its obligations. ETNs do not typically pay interest.

Leveraged ETFs: Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their fund objectives on a daily basis (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e. 200%, 300%, -200%, or -300% or 2X, 3X, -2X, -3X). Compounding has the ability to affect the performance of the fund to be either greater or less than the index performance multiplied by the multiple stated within the funds objective over a stated time period.

Short Positions: When a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

Long-Short: Due to the strategies used by long-short funds, which may include but are not limited to leverage, short selling, short-term trading, and investing in derivatives, these funds may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

Liquidity Risk: Closed-end fund, ETF, and HOLDR trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

Market Price Risk: The market price of ETFs, HOLDRs, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

Market Risk: The market prices of ETFs and HOLDRs can fluctuate as a result of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

Target-Date Funds: Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximate date when investors expect to begin withdrawing their money. A target-date fund's investment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including at the fund's target date.

High double- and triple-digit returns: High double- and triple-digit returns were the result of extremely favorable market conditions, which may not continue to be the case. High returns for short time periods must not be a major factor when making investment decisions.

Benchmark Disclosure

BBgBarc US Agg Bond TR USD
This index is composed of the BarCap Government/Credit Index, the Mortgage-Backed Securities Index, and the Asset-Backed Securities Index. The returns we publish for the index are total returns, which includes the daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core US Aggregate Bond ETF.

JPM EMBI Global Diversified TR USD
Description unavailable.

MSCI EAFE NR USD
This Europe, Australasia, and Far East index is a market-capitalization-weighted index of 21 non-U.S., industrialized country indexes.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

This disclosure applies to all MSCI indices: Certain information included herein is derived by Morningstar in part from MSCI's Index Constituents (the "Index Data"). However, MSCI has not reviewed any information contained herein and does not endorse or express any opinion such information or analysis. MSCI does not make any express or implied warranties, representations or guarantees concerning the Index Data or any information or data derived therefrom, and in no event will MSCI have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of this information.

S&P 500 TR USD
A market capitalization-weighted index composed of the 500 most widely held stocks whose assets and/or revenues are based in the US; it's often used as a proxy for the U.S. stock market. TR (Total Return) indexes include daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: SPDR® S&P 500 ETF Trust.

USTREAS T-Bill Auction Ave 3 Mon
Three-month T-bills are government-backed, short-term investments considered to be risk-free and as good as cash because the maturity is only three months. Morningstar collects yields on the T-bill on a weekly basis from the Wall Street Journal.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Vanguard Long-Term Treasury Index Fund Institutional Shares (VLGIX)

Firm Background*

The Vanguard Group, Inc. is one of the largest providers of low-cost mutual funds and index-tracking products. Jack Bogle founded Vanguard in 1975 with the philosophy that low costs are crucial to generate consistently attractive investment performance. Vanguard was the first firm to provide widespread passive index products to retail investors. Over time, Vanguard expanded its product set to include various asset classes and actively managed funds. Vanguard's active products are either managed internally or subadvised by external asset managers. Equity strategies represent more than two-thirds of firm assets, fixed income strategies account for approximately 25% of assets, and cash and multi-asset strategies comprise the balance of assets. The firm's client mix is approximately 60% institutional and 40% retail investors.

Headquartered in Malvern, PA, Vanguard employs over 17,000 people. The firm has offices around the world, but investment management is concentrated in a limited number of them (Malvern; Melbourne, Australia; and London, UK). The firm is owned by its own investment funds, which are, in turn, owned by their shareholders. As a result, Vanguard's fund investors indirectly own the firm. Fund management fees pay for the firm's expenses and Vanguard reinvests profits to lower future expense ratios. Effective January 1, 2018, Tim Buckley succeeded William McNabb as Vanguard's Chief Executive Officer. Mr. Buckley joined the firm in 1991 and has held a number of senior leadership positions during his tenure. Mr. McNabb will remain chairman of Vanguard's board, a role he has held since 2009.

Organization: Satisfactory (4 out of 5)*

Vanguard has a decades-long legacy of client service and thoughtful product development that dates to its founding as an indexing provider. It launches funds after thorough consideration of where it believes product offerings are consistent with investor interests as well as the firm's philosophy and long-term focus. In our view, Vanguard's mutual fund ownership structure has both advantages and disadvantages. For instance, the firm's trademark low fees provide Vanguard with a persistent return advantage over peers, which contributes to the strength of the franchise. These low fees are a direct result of the ownership structure, which has also greatly contributed to the firm's considerable level of assets under management. On the other hand, a disadvantage of the firm's ownership structure is that it does not allow employees to benefit from a profit sharing or equity compensation scheme; although, Vanguard does make use of deferred bonus compensation for key executives and investment professionals. The firm actively rotates senior employees across roles and disciplines. While this may result in longevity and broad perspectives, it reduces specialization and tenure in the roles left behind. Vanguard has experienced tremendous growth over the past decade to become one of the world's largest asset managers. Along with this growth, the firm has had to address the issues that often accompany a significant increase in AUM.

Strategy**

Vanguard Long-Term Treasury Index Fund seeks to track the performance of a market-weighted Treasury index with a long-term dollar-weighted average maturity.

The fund employs an index sampling technique to select securities. Using sophisticated computer programs, the fund's advisor generally selects a representative sample of securities that approximates the full target index in terms of key risk factors and other characteristics.

These factors include duration, cash flow, quality, and callability of the underlying bonds. In addition, the fund keeps sector and subsector exposure within tight boundaries relative to its target index. Because the fund does not hold all issues in its target index, some of the issues (and issuers) that are held will likely be overweighted (or underweighted) compared with the target index. The maximum overweight (or underweight) is constrained at the issuer level with the goal of producing well-diversified credit exposure in the portfolio.

Summary

This fund has not been rated by Morningstar, Inc.

Performance

This fund has not been rated by Morningstar, Inc.

Price

This fund has not been rated by Morningstar, Inc.

Process

This fund has not been rated by Morningstar, Inc.

People

This fund has not been rated by Morningstar, Inc.

* Source: BNY Mellon Manager Research Group, as of December 2019
** Source: Vanguard Group, Inc., as of 6/30/2020

Release date 07-31-2020 Page 1 of 11

Vanguard Long-Term Treasury Idx Instl (USD)

Morningstar Quantitative Rating™ Gold 6 (06-30-2020)

Overall Morningstar Rating™ ★★★ 28 US Fund Long Government

Standard Index BBgBarc US Agg Bond TR USD

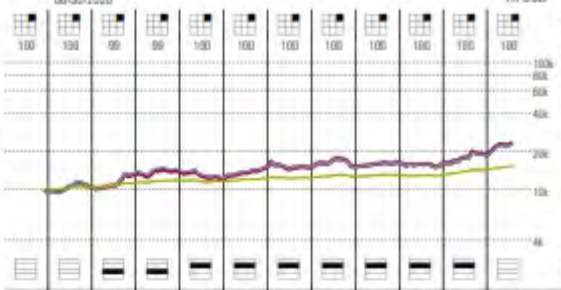
Category Index BBgBarc US Government Long TR USD

Morningstar Cat US Fund Long Government

Investment Style Fixed Income Bond %

Growth of $10,000
- Vanguard Long-Term Treasury Idx Instl 23,314
- Category Average 22,833
- Standard Index 15,317

Performance Quartile (within category)



Performance 07-31-2020

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2018	-3.49	0.44	-2.83	4.43	-1.63
2019	4.67	5.67	8.12	-4.42	14.30
2020	20.86	0.36	—	—	26.42

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	30.30	13.69	9.32	8.11	8.11
Std 06-30-2020	25.36	—	9.29	7.86	7.73
Total Return	30.30	13.69	9.32	8.11	8.11
+/- Std Index	20.17	8.00	4.85	4.24	—
+/- Cat Index	0.14	-0.03	-0.05	-0.02	—
% Rank Cat	50	46	42	37	
No. in Cat	31	28	25	22	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 08-05-20	1.12	1.15

	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	07-20	History
	24.00	25.81	32.09	32.23	27.30	33.13	31.81	31.46	33.30	31.86	35.51	44.40	NAV/Price
	—	9.35	28.94	3.52	-12.73	25.08	-1.32	1.38	8.67	-1.63	14.30	26.42	Total Return %
	—	2.80	21.10	-0.69	-10.71	19.12	-1.87	-1.27	5.12	-1.84	5.58	18.70	+/- Standard Index
	—	-0.08	-0.20	-0.26	-0.25	0.42	-0.15	-0.05	0.13	0.16	-0.45	0.40	+/- Category Index
	—	—	58	55	26	31	40	28	42	32	43	—	% Rank Cat
	—	—	34	32	24	30	34	34	32	31	32	32	No. of Funds in Cat

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.04
12b1 Expense %	NA
Net Expense Ratio %	**0.05**
Gross Expense Ratio %	**0.05**

Risk and Return Profile

	3 Yr 28 funds	5 Yr 25 funds	10 Yr 22 funds
Morningstar Rating™	3★	3★	3★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	Avg	Avg	Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	12.07	11.15	11.71
Mean	13.69	9.32	8.11
Sharpe Ratio	0.99	0.75	0.67

MPT Statistics	Standard Index	Best Fit Index BBgBarc US Government Long TR USD
Alpha	0.03	-0.16
Beta	3.02	1.01
R-Squared	69.21	99.61
12-Month Yield		1.85%
Potential Cap Gains Exp		11.85%

Portfolio Analysis 06-30-2020

Asset Allocation %	Net %	Long %	Short %
Cash	0.04	0.04	0.00
US Stocks	0.00	0.00	0.00
Non-US Stocks	0.00	0.00	0.00
Bonds	99.96	99.96	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style

Value	Blend	Growth	
			Large
			Mid
			Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	—	—	—
P/C Ratio TTM	—	—	—
P/B Ratio TTM	—	—	—
Geo Avg Mkt Cap $mil	—	—	—

Fixed-Income Style

Ltd	Mod	Ext	
			High
			Mod
			Low

Avg Eff Maturity	25.30
Avg Eff Duration	18.73
Avg Wtd Coupon	3.05
Avg Wtd Price	134.92

Credit Quality Breakdown 06-30-2020

	Bond %
AAA	99.95
AA	0.00
A	0.00
BBB	0.05
BB	0.00
B	0.00
Below B	0.00
NR	0.00

Regional Exposure	Stocks %	Rel Std Index
Americas	—	—
Greater Europe	—	—
Greater Asia	—	—

Share Chg since 05-2020	Share Amount	Holdings: 0 Total Stocks, 55 Total Fixed-Income, 16% Turnover Ratio	Net Assets %
⊖	209 mil	United States Treasury Bonds 2%	4.80
⊕	155 mil	United States Treasury Bonds 2.38%	3.84
⊕	117 mil	United States Treasury Bonds 3%	3.24
⊕	134 mil	United States Treasury Bonds 2.25%	3.22
⊕	102 mil	United States Treasury Bonds 3.38%	2.99
⊕	105 mil	United States Treasury Bonds 3.12%	2.94
⊕	103 mil	United States Treasury Bonds 3%	2.81
⊕	111 mil	United States Treasury Bonds 2.5%	2.75
⊕	105 mil	United States Treasury Bonds 2.75%	2.74
⊕	99 mil	United States Treasury Bonds 3%	2.73
⊕	92 mil	United States Treasury Bonds 3.62%	2.70
⊕	97 mil	United States Treasury Bonds 3.12%	2.65
⊕	95 mil	United States Treasury Bonds 3%	2.61
⊖	85 mil	United States Treasury Bonds 3.75%	2.53
⊕	105 mil	United States Treasury Bonds 2.25%	2.50

Sector Weightings	Stocks %	Rel Std Index
Cyclical	—	—
Basic Materials	—	—
Consumer Cyclical	—	—
Financial Services	—	—
Real Estate	—	—
Sensitive	—	—
Communication Services	—	—
Energy	—	—
Industrials	—	—
Technology	—	—
Defensive	—	—
Consumer Defensive	—	—
Healthcare	—	—
Utilities	—	—

Operations

Family:	Vanguard	Base Currency:	USD	Purchase Constraints:	—
Manager:	Joshua Barrickman	Ticker:	VLGIX	Incept:	11-19-2009
Tenure:	7.5 Years	ISIN:	US922086C894	Type:	MF
Objective:	Government Bond - General	Minimum Initial Purchase:	$5 mil	Total Assets:	$5,552.78 mil

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Standardized and Tax Adjusted Returns Disclosure Statement

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end please visit http://advisor.morningstar.com/familyinfo.asp.

Standardized Returns assume reinvestment of dividends and capital gains. They depict performance without adjusting for the effects of taxation, but are adjusted to reflect sales charges and ongoing fund expenses.

If adjusted for taxation, the performance quoted would be significantly reduced. For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges. The maximum redemption fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase.

After-tax returns are calculated using the highest individual federal marginal income tax rates, and do not reflect the impact of state and local taxes. Actual after-tax returns depend on the investor's tax situation and may differ from those shown. The after-tax returns shown are not relevant to investors who hold their fund shares through tax-deferred arrangements such as 401(k) plans or an IRA. After-tax returns exclude the effects of either the alternative minimum tax or phase-out of certain tax credits. Any taxes due are as of the time the distributions are made, and the taxable amount and tax character of each distribution are as specified by the fund on the dividend declaration date. Due to foreign tax credits or realized capital losses, after-tax returns may be greater than before-tax returns. After-tax returns for exchange-traded funds are based on net asset value.

Money Market Fund Disclosures

If money market fund(s) are included in the Standardized Returns table below, each money market fund's name will be followed by a superscripted letter that links it to the applicable disclosure below:

Institutional Money Market Funds (designated by an "S"):

You could lose money by investing in the fund. Because the share price of the fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "L") and

Retail Money Market Funds (designated by an "L"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen not to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "N"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Annualized returns 06-30-2020

Standardized Returns (%)	7-day Yield Subsidized as of date	7-day Yield Unsubsidized as of date	1Yr	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
Vanguard Long-Term Treasury Idx Inst	—	—	25.38	9.29	7.66	7.73	11-19-2009	NA	NA	0.05	0.05	NA
BBgBarc US Agg Bond TR USD			**8.74**	**4.30**	**3.82**	**—**	**01-03-1990**					
BBgBarc US Government Long TR USD			**25.14**	**9.21**	**7.71**	**—**	**05-01-1991**					
MSCI EAFE NR USD			**-5.13**	**2.05**	**5.73**	**—**	**03-31-1986**					
S&P 500 TR USD			**7.51**	**10.73**	**13.99**	**—**	**09-11-1989**					
USTREAS T-Bill Auction Ave 3 Mon			**1.26**	**1.17**	**0.62**	**—**	**02-28-1941**					

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, at the licensed fund, account information provided to your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplementary sales literature. If applicable it must be preceded or accompanied by a prospectus, or summary and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Annualized returns 06-30-2020

Return after Tax (%)	On Distribution					On Distribution and Sales of Shares			
	1Yr	5Yr	10Yr	Since Inception	Inception Date	1Yr	5Yr	10Yr	Since Inception
Vanguard Long-Term Treasury Idx Instl	24.26	8.12	—	6.50	11-19-2009	14.95	6.71	—	5.57

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Mutual Fund Detail Report Disclosure Statement

The Mutual Fund Detail Report is supplemental sales literature, and therefore must be preceded or accompanied by the mutual fund's current prospectus or an equivalent statement. Please read this information carefully. In all cases, this disclosure statement should accompany the Mutual Fund Detail Report. Morningstar is not itself a FINRA-member firm.

All data presented is based on the most recent information available to Morningstar as of the release date and may or may not be an accurate reflection of current data for securities included in the fund's portfolio. There is no assurance that the data will remain the same.

Unless otherwise specified, the definition of "funds" used throughout this Disclosure Statement includes closed-end funds, exchange-traded funds, grantor trusts, index mutual funds, open-ended mutual funds, and unit investment trusts. It does not include exchange-traded notes or exchange-traded commodities.

Prior to 2016, Morningstar's methodology evaluated open-end mutual funds and exchange-traded funds as separate groups. Each group contained a subset of the current investments included in our current comparative analysis. In this report, historical data presented on a calendar-year basis and trailing periods ending at the most-recent month-end reflect the updated methodology.

Risk measures (such as alpha, beta, r-squared, standard deviation, mean, or Sharpe ratio) are calculated for securities or portfolios that have at least a three-year history.

Most Morningstar rankings do not include any adjustment for one-time sales charges, or loads. Morningstar does publish load-adjusted returns, and ranks such returns within a Morningstar Category in certain reports. The total returns for ETFs and fund share classes without one-time loads are equal to Morningstar's calculation of load-adjusted returns. Share classes that are subject to one-time loads relating to advice or sales commissions have their returns adjusted as part of the load-adjusted return calculation to reflect those loads.

Comparison of Fund Types

Funds, including closed-end funds, exchange-traded funds (ETFs), money market funds, open-end funds, and unit investment trusts (UITs), have many similarities, but also many important differences. In general, publically-offered funds are investment companies registered with the Securities and Exchange Commission under the Investment Company Act of 1940, as amended. Funds pool money from their investors and manage it according to an investment strategy or objective, which can vary greatly from fund to fund. Funds have the ability to offer diversification and professional management, but also involve risk, including the loss of principal.

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. A closed-end mutual fund's expense ratio is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Closed-end funds may also have 12b-1 fees. Income distributions and capital gains of the closed-end fund are subject to income tax, if held in a taxable account.

An ETF is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, an ETF can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. ETFs are not actively managed, so their value may be affected by a general decline in the U.S. market segments relating to their underlying indexes. Similarly, an imperfect match between an ETF's holdings and those of its underlying index may cause its performance to vary from that of its underlying index. The expense ratio of an ETF is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. ETFs do not have 12b-1 fees or sales loads. Capital gains from funds held in a taxable account are subject to income tax. In many, but not all cases, ETFs are generally considered to be more tax-efficient when compared to similarly invested mutual funds.

Holding company depository receipts (HOLDRs) are similar to ETFs, but they focus on narrow industry groups. HOLDRs initially own 20 stocks, which are unmanaged, and can become more concentrated due to mergers, or the disparate performance of their holdings. HOLDRs can only be bought in 100-share increments. Investors may exchange shares of a HOLDR for its underlying stocks at any time.

A money-market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and are not guaranteed by a bank or other financial institution.

An open-end fund is an investment company that issues shares on a continuous basis. Shares can be purchased from the open-end mutual fund itself, or through an intermediary, but cannot be traded on a secondary market, such as the New York Stock Exchange. Investors pay the open-end mutual fund's current net asset value plus any initial sales loads. Net asset value is calculated daily, at the close of business. Open-end mutual fund shares can be redeemed, or sold back to the fund or intermediary, at their current net asset value minus any deferred sales loads or redemption fees. The expense ratio for an open-end mutual fund is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Open-end funds may also have 12b-1 fees. Income distributions and capital gains of the open-end fund are subject to income tax, if held in a taxable account.

A unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units. A one-time initial sales charge is deducted from an investment made into the trust. UIT investors may also pay creation and development fees, organization costs, and/or trustee and operation expenses. UIT units may be redeemed by the sponsor at their net

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

asset value minus a deferred sales charge, and sold to other investors. UITs have set termination dates, at which point the underlying securities are sold and the sales proceeds are paid to the investor. Typically, a UIT investment is rolled over into successive trusts as part of a long-term strategy. A rollover fee may be charged for the exercise of rollover purchases. There are tax consequences associated with rolling over an investment from one trust to the next.

Performance

The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares, when sold, may be worth more or less than the original investment. Fund portfolio statistics change over time. Funds are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution.

Morningstar calculates after-tax returns using the highest applicable federal marginal income tax rate plus the investment income tax and Medicare surcharge. As of 2018, this rate is 37% plus 3.8% investment income plus 0.9% Medicare surcharge, or 41.7%. This rate changes periodically in accordance with changes in federal law.

Pre-Inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the inception of the share class of the fund shown in this report ("Report Share Class"). If pre-inception returns are shown, a performance stream consisting of the Report Share Class and older share class(es) is created. Morningstar adjusts pre-inception returns downward to reflect higher expenses in the Report Share Class, we do not hypothetically adjust returns upwards for lower expenses. For more information regarding calculation of pre-inception returns please see the Morningstar Extended Performance Methodology.

When pre-inception data is presented in the report, the header at the top of the report will indicate this. In addition, the pre-inception data included in the report will appear in italics.

While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of newer share classes of a fund, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. For example, the fee structures of a retail share class will vary from that of an institutional share class, as retail shares tend to have higher operating expenses and sales charges. These adjusted historical returns are not actual returns. The underlying investments in the share classes used to calculate the pre-performance string will likely vary from the underlying investments held in the fund after inception. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the fund itself.

12b1 Expense %

A 12b-1 fee is a fee used to pay for a mutual fund's distribution costs. It is often used as a commission to brokers for selling the fund. The amount of the fee is taken from a fund's returns.

Alpha

Alpha is a measure of the difference between a security or portfolio's actual returns and its expected performance, given its level of risk (as measured by beta.) Alpha is often seen as a measure of the value added or subtracted by a portfolio manager.

Asset Allocation

Asset Allocation reflects asset class weightings of the portfolio. The "Other" category includes security types that are not neatly classified in the other asset classes, such as convertible bonds and preferred stocks, or cannot be classified by Morningstar as a result of missing data. Morningstar may display asset allocation data in several ways, including tables or pie charts. In addition, Morningstar may compare the asset class breakdown of the fund against its three-year average, category average, and/or index proxy.

Asset allocations shown in tables may include a breakdown among the long, short, and net (long positions net of short) positions. These statistics summarize what the fund's managers are buying and how they are positioning the fund's portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the fund's exposure and risk. Long positions involve buying the security outright and selling it later, with the hope the security's price rises over time. Short positions are taken with the hope of benefitting from anticipated price declines. The investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience a loss buying it at a higher price than the sale price.

Most fund portfolios hold fairly conventional securities, such as long positions in equities and bonds. Morningstar may generate a colored pie chart for these portfolios. Other portfolios use other investment strategies or securities, such as short positions or derivatives, in an attempt to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while other have unique return and risk characteristics. Portfolios that incorporate investment strategies resulting in short positions or portfolio with relatively exotic derivative positions often report data to Morningstar that does not meet the parameters of the calculation underlying a pie chart's generation. Because of the nature of how these securities are reported to Morningstar, we may not always get complete portfolio information to report asset allocation. Morningstar, at its discretion, may determine if unidentified characteristics of fund holdings are material. Asset allocation and other breakdowns may be rescaled accordingly so that percentages total to 100 percent. (Morningstar used discretion to determine if unidentified characteristics of fund holdings are material, pie charts and other breakdowns may rescale identified characteristics to 100% for more intuitive presentation.)

Note that all other portfolio statistics presented in this report are based on the long (or long rescaled) holdings of the fund only.

Average Effective Duration

Duration is a time measure of a bond's interest-rate sensitivity. Average effective duration is a weighted average of the duration of the fixed-income securities within a portfolio.

Average Effective Maturity

Average Effective Maturity is a weighted average of the maturities of all bonds in a portfolio.

Average Weighted Coupon

A coupon is the fixed annual percentage paid out on a bond. The average weighted coupon is the asset-weighted coupon of each bond in the portfolio.

Average Weighted Price

Average Weighted Price is the asset-weighted price of bonds held in a portfolio, expressed as a percentage of par (face) value. This number reveals if the portfolio favors bonds selling at prices above or below par value (premium or discount securities respectively.)

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Best Fit Index
Alpha, beta, and R-squared statistics are presented for a broad market index and a "best fit" index. The Best Fit Index identified in this report was determined by Morningstar by calculating R-squared for the fund against approximately 100 indexes tracked by Morningstar. The index representing the highest R-squared is identified as the best fit index. The best fit index may not be the fund's benchmark, nor does it necessarily contain the types of securities that may be held by the fund or portfolio.

Beta
Beta is a measure of a security or portfolio's sensitivity to market movements (proxied using an index.) A beta of greater than 1 indicates more volatility than the market, and a beta of less than 1 indicates less volatility than the market.

Credit Quality Breakdown
Credit Quality breakdowns are shown for corporate-bond holdings in the fund's portfolio and depict the quality of bonds in the underlying portfolio. It shows the percentage of fixed-income securities that fall within each credit-quality rating as assigned by a Nationally Recognized Statistical Rating Organization (NRSRO). Bonds not rated by an NRSRO are included in the Other/Not-Classified category.

Deferred Load %
The back-end sales charge or deferred load is imposed when an investor redeems shares of a fund. The percentage of the load charged generally declines the longer the fund's shares are held by the investor. This charge, coupled with 12b-1 fees, commonly serves as an alternative to a traditional front-end load.

Expense Ratio %
The expense ratio is the annual fee that all funds charge their shareholders. It expresses the percentage of assets deducted each fiscal year for fund expenses, including 12b-1 fees, management fees, administrative fees, operating costs, and all other asset-based costs incurred by the fund. Portfolio transaction fees, or brokerage costs, as well as front-end or deferred sales charges are not included in the expense ratio. The expense ratio, which is deducted from the fund's average net assets, is accrued on a daily basis. The gross expense ratio, in contrast to the net expense ratio, does not reflect any fee waivers in effect during the time period.

Front-end Load %
The initial sales charge or front-end load is a deduction made from each investment in the fund and is generally based on the amount of the investment.

Geometric Average Market Capitalization
Geometric Average Market Capitalization is a measure of the size of the companies in which a portfolio invests.

Growth of 10,000
For funds, this graph compares the growth of an investment of 10,000 (in the base currency of the fund) with that of an index and/or with that of the average for all funds in its Morningstar Category. The total returns are not adjusted to reflect sales charges or the effects of taxation but are adjusted to reflect actual ongoing fund expenses, and they assume reinvestment of dividends and capital gains. If adjusted, effects of sales charges and taxation would reduce the performance quoted. If pre-inception data is included in the analysis, it will be graphed.

The index in the Growth of 10,000 graph is an unmanaged portfolio of specified securities and cannot be invested in directly. The index does not reflect any initial or ongoing expenses. A fund's portfolio may differ significantly from the securities in the index. The index is chosen by Morningstar.

Management Fees %
The management fee includes the management and administrative fees listed in the Management Fees section of a fund's prospectus. Typically, these fees represent the costs shareholders paid for management and administrative services over the fund's prior fiscal year.

Maximum Redemption Fee %
The Maximum Redemption Fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase (for example, 30, 180, or 365 days).

Mean
Mean is the annualized geometric return for the period shown.

Morningstar Analyst Rating™
Effective October 31, 2019, Morningstar updated its Morningstar Analyst Rating™ methodology. For any Morningstar Analyst Rating published on or prior to October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark, or in the case of exchange-traded funds and index mutual funds, a relevant peer group, over the long term on a risk-adjusted basis. They consider quantitative and qualitative factors in their research, and the weight of each pillar may vary. The Analyst Rating scale is Gold, Silver, Bronze, Neutral, and Negative. A Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's conviction in a fund's prospects for outperformance. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at east every 14 months. For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to global.morningstar.com/managerdisclosures/.

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

For any Morningstar Analyst Rating published after October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five-pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark over the long term on a risk adjusted basis. They consider quantitative and qualitative factors in their research. For actively managed strategies, people and process each receive a 45% weighting in their analysis, while parent receives a 10% weighting. For passive strategies, process receives an 80% weighting, while people and parent each receive a

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

10% weighting. For both active and passive strategies, performance has no explicit weight as it is incorporated into the analysis of people and process; price at the share-class level (where applicable) is directly subtracted from an expected gross alpha estimate derived from the analysis of the other pillars. The impact of the weighted pillar scores for people, process and parent on the final Analyst Rating is further modified by a measure of the dispersion of historical alphas among relevant peers. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, the modification by alpha dispersion is not used.

For active funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that an active fund will be able to deliver positive alpha net of fees relative to the standard benchmark index assigned to the Morningstar category. The level of the rating relates to the level of expected positive net alpha relative to Morningstar category peers for active funds. For passive funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will be able to deliver a higher alpha net of fees than the lesser of the relevant Morningstar category median or 0. The level of the rating relates to the level of expected net alpha relative to Morningstar category peers for passive funds. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will deliver a weighted pillar score above a predetermined threshold within its peer group. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at least every 14 months.

For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

Morningstar Quantitative Rating™

Morningstar's quantitative fund ratings consist of: (i) Morningstar Quantitative Rating (overall score), (ii) Quantitative Parent pillar, (iii) Quantitative People pillar, and (iv) Quantitative Process pillar (collectively the "Quantitative Fund Ratings".).The Quantitative Fund Ratings are calculated monthly and derived from the analyst-driven ratings of a fund's peers as determined by statistical algorithms. Morningstar, Inc. calculates Quantitative Fund Ratings for funds when an analyst rating does not exist as part of its qualitative coverage.

- ***Morningstar Quantitative Rating:*** Intended to be comparable to Morningstar's Analyst Ratings for open-end funds and ETFs, which is the summary expression of Morningstar's forward-looking analysis of a fund. The Morningstar Analyst Rating is based on the analyst's conviction in the fund's ability to outperform its peer group and/or relevant benchmark on a risk-adjusted basis over a full market cycle of at least 5 years. Ratings are assigned on a five-tier scale with three positive ratings of Gold, Silver, and Bronze, a Neutral rating, and a Negative rating. Morningstar calculates the Morningstar Quantitative Rating using a statistical model derived from the Morningstar Analyst Rating our fund analysts assign to open-end funds and ETFs. Please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx for information about Morningstar Analyst Rating Morningstar's fund analysts assign to funds.

- ***Quantitative Parent pillar:*** Intended to be comparable to Morningstar's Parent pillar scores, which provides Morningstar's analyst opinion on the stewardship quality of a firm. Morningstar calculates the Quantitative Parent pillar using an algorithm designed to predict the Parent Pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative People pillar:*** Morningstar's People pillar scores, which provides Morningstar's analyst opinion on the fund manager's talent, tenure, and resources. Morningstar calculates the Quantitative People pillar using an algorithm designed to predict the People pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative Process Pillar:*** Intended to be comparable to Morningstar's Process pillar scores, which provides Morningstar's analyst opinion on the fund's strategy and whether the management has a competitive advantage enabling it to execute the process and consistently over time. Morningstar calculates the Quantitative Process pillar using an algorithm designed to predict the Process pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), and Low (1).

Morningstar Quantitative Ratings **have not been made available** to the issuer of the security prior to publication.

Risk Warning

The quantitative fund ratings are not statements of fact. Morningstar does not guarantee the completeness or accuracy of the assumptions or models used in determining the quantitative fund ratings. In addition, there is the risk that the return target will not be met due to such things as unforeseen changes in changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, and tax rate. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions. A change in the fundamental factors underlying the quantitative fund ratings can mean that the recommendation is subsequently no longer accurate.

For more information about Morningstar's quantitative methodology, please visit https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

Morningstar Category

Morningstar Category is assigned by placing funds into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a fund's prospectus may not be sufficiently detailed for our proprietary classification methodology. Funds are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the fund is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

Morningstar Rank

Morningstar Rank is the total return percentile rank within each Morningstar Category. The highest (or most favorable) percentile rank is zero and the lowest (or least favorable) percentile rank is 100. Historical percentile ranks are based on a snapshot of a fund at the time of calculation.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Morningstar Rating™

The Morningstar Rating™for funds, or "star rating", is calculated for funds and separate accounts with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The Morningstar Rating does not include any adjustment for sales loads. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. For more information about the Morningstar Rating for funds, including its methodology, please go to global.morningstar.com/managerdisclosures

The Morningstar Return rates a fund's performance relative to other managed products in its Morningstar Category. It is an assessment of a product's excess return over a risk-free rate (the return of the 90-day Treasury Bill) in comparison with the products in its Morningstar category. In each Morningstar category, the top 10% of products earn a High Morningstar Return (High), the next 22.5% Above Average (+Avg), the middle 35% Average (Avg), the next 22.5% Below Average (-Ave), and the bottom 10% Low (Low). Morningstar Return is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Risk

Morningstar Risk evaluates a fund's downside volatility relative to that of other products in its Morningstar Category. It is an assessment of the variations in monthly returns, with an emphasis on downside variations, in comparison with the products in its Morningstar category. In each Morningstar category, the 10% of products with the lowest measured risk are described as Low Risk (Low), the next 22.5% Below Average (-Avg), the middle 35% Average (Avg), the next 22.5% Above Average (+Avg), and the top 10% High (High). Morningstar Risk is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Style Box™

The Morningstar Style Box™ reveals a fund's investment strategy as of the date noted on this report.

For equity funds, the vertical axis shows the market capitalization of the long stocks owned, and the horizontal axis shows the investment style (value, blend, or growth.) A darkened square in the style box indicates the weighted average style of the portfolio.

For fixed-income funds, the vertical axis shows the credit quality of the long bonds owned and the horizontal axis shows interest-rate sensitivity as measured by a bond's effective duration. Morningstar seeks credit rating information from fund companies on a periodic basis (for example, quarterly). In compiling credit rating information, Morningstar accepts credit ratings reported by fund companies that have been issued by all Nationally Recognized Statistical Rating Organizations. For a list of all NRSROs, please visit http://www.sec.gov/divisions/marketreg/ ratingagency.htm. Additionally, Morningstar accepts foreign credit ratings from widely recognized or registered rating agencies. If two rating organizations/ agencies have rated a security, fund companies are to report the lower rating; if three or more organizations/agencies have rated a security, fund companies are to report the median rating; and in cases where there are more than two organization/agency ratings and a median rating does not exist, fund companies are to use the lower of the two middle ratings.

Please Note: Morningstar, Inc. is not an NRSRO nor does it issue a credit rating on the fund. NRSRO or rating agency ratings can change from time to time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low," "medium," or "high" based on their average credit quality. Funds with a "low" credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; "medium" are those less than "AA-", but greater or equal to "BBB-"; and "high" are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index, which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal-bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases, static breakpoints are used. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-U.S. taxable and non-U.S. domiciled fixed-income funds, static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: more than 3.5 years but less than or equal to 6 years; (iii) Extensive: more than 6 years.

Interest-rate sensitivity for non-U.S. domiciled funds (excluding funds in convertible categories) may be measured with modified duration when effective duration is not available.

P/B Ratio TTM

The Price/Book Ratio (or P/B Ratio) for a fund is the weighted average of the P/B Ratio of the stocks in its portfolio. Book value is the total assets of a company, less total liabilities. The P/B ratio of a company is calculated by dividing the market price of its outstanding stock by the company's book value, and then adjusting for the number of shares outstanding. Stocks with negative book values are excluded from this calculation. It shows approximately how much an investor is paying for a company's assets based on historical valuations.

P/C Ratio TTM

The Price/Cash Flow Ratio (or P/C Ratio) for a fund is the weighted average of the P/C Ratio of the stocks in its portfolio. The P/C Ratio of a stock represents the amount an investor is willing to pay for a dollar generated from a company's operations. It shows the ability of a company to generate cash and acts as a gauge of liquidity and solvency.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

P/E Ratio TTM
The Price/Earnings Ratio (or P/E Ratio) for a fund is the weighted average of the P/E Ratios of the stocks in its portfolio. The P/E Ratio of a stock is the stock's current price divided by the company's trailing 12-month earnings per share. A high P/E Ratio usually indicates the market will pay more to obtain the company's earnings because it believes in the company's abilities to increase their earnings. A low P/E Ratio indicates the market has less confidence that the company's earnings will increase, however value investors may believe such stocks have an overlooked or undervalued potential for appreciation.

Percentile Rank in Category
Percentile Rank is a standardized way of ranking items within a peer group, in this case, funds within the same Morningstar Category. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable for returns (high returns), while higher percentile ranks are generally more favorable for risk measures (low risk).

Performance Quartile
Performance Quartile reflects a fund's Morningstar Rank.

Potential Capital Gains Exposure
Potential Capital Gains Exposure is an estimate of the percent of a fund's assets that represent gains. It measures how much the fund's assets have appreciated, and it can be an indicator of possible future capital gains distributions. A positive potential capital gains exposure value means that the fund's holdings have generally increased in value while a negative value means that the fund has reported losses on its book.

Quarterly Returns
Quarterly Return is calculated applying the same methodology as Total Return except it represents return through each quarter-end.

R-Squared
R-squared is the percentage of a security or portfolio's return movements that are explained by movements in its benchmark index, showing the degree of correlation between the security or portfolio and the benchmark. This figure is helpful in assessing how likely it is that beta and alpha are statistically significant. A value of 1 indicates perfect correlation between the security or portfolio and its benchmark. The lower the R-squared value, the lower the correlation.

Regional Exposure
The regional exposure is a display of the portfolio's assets invested in the regions shown on the report.

Sector Weightings
Super Sectors represent Morningstar's broadest classification of equity sectors by assigning the 11 equity sectors into three classifications. The Cyclical Super Sector includes industries significantly impacted by economic shifts, and the stocks included in these sectors generally have betas greater than 1. The Defensive Super Sector generally includes industries that are relatively immune to economic cycles, and the stocks in these industries generally have betas less than 1. The Sensitive Super Sector includes industries that ebb and flow with the overall economy, but not severely so. Stocks in the Sensitive Super Sector generally have betas that are close to 1.

Share Change
Shares Change represents the number of shares of a stock bought or sold by a fund since the previously reported portfolio of the fund.

Sharpe Ratio
Sharpe Ratio uses standard deviation and excess return (a measure of a security or portfolio's return in excess of the U.S. Treasury three-month Treasury Bill) to determine the reward per unit of risk.

Standard Deviation
Standard deviation is a statistical measure of the volatility of the security or portfolio's returns. The larger the standard deviation, the greater the volatility of return.

Standardized Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experience if the security was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Total Return
Total Return, or "Non Load-Adjusted Return", reflects performance without adjusting for sales charges (if applicable) or the effects of taxation, but it is adjusted to reflect all actual ongoing security expenses and assumes reinvestment of dividends and capital gains. It is the return an investor would have experienced if the fund was held throughout the period. If adjusted for sales charges and the effects of taxation, the performance quoted would be significantly reduced.

Total Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Trailing Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experienced if the fund was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Load-Adjusted Monthly Return is calculated applying the same methodology as Standardized Return, except that it represents return through month-end. As with Standardized Return, it reflects the impact of sales charges and ongoing fund expenses, but not taxation. If adjusted for the effects of taxation, the performance quoted would be significantly different.

Trailing Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Investment Risks

International/Emerging Market Equities: Investing in international securities involves special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Sector Strategies: Portfolios that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

to increased industry-specific risks.

Non-Diversified Strategies: Portfolios that invest a significant percentage of assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

Small Cap Equities: Portfolios that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

Mid Cap Equities: Portfolios that invest in companies with market capitalization below $10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

High-Yield Bonds: Portfolios that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

Tax-Free Municipal Bonds: The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

Bonds: Bonds are subject to interest rate risk. As the prevailing level of bond interest rates rise, the value of bonds already held in a portfolio declines. Portfolios that hold bonds are subject to declines and increases in value due to general changes in interest rates.

HOLDRs: The investor should note that these are narrow industry-focused products that, if the industry is hit by hard times, will lack diversification and possible loss of investment would be likely. These securities can trade at a discount to market price, ownership is of a fractional share interest, the underlying investments may not be representative of the particular industry, the HOLDR might be delisted from the AMEX if the number of underlying companies drops below nine, and the investor may experience trading halts.

Hedge Funds: The investor should note that hedge fund investing involves specialized risks that are dependent upon the type of strategies undertaken by the manager. This can include distressed or event-driven strategies, long/short strategies, using arbitrage (exploiting price inefficiencies), international investing, and use of leverage, options and/or derivatives. Although the goal of hedge fund managers may be to reduce volatility and produce positive absolute return under a variety of market conditions, hedge funds may involve a high degree of risk and are suitable only for investors of substantial financial means who could bear the entire loss of their investment.

Bank Loan/Senior Debt: Bank loans and senior loans are impacted by the risks associated with fixed income in general, including interest rate risk and default risk. They are often non-investment grade; therefore, the risk of default is high. These securities are also relatively illiquid. Managed products that invest in bank loans/senior debt are often highly leveraged, producing a high risk of return volatility.

Exchange Traded Notes (ETNs): ETNs are unsecured debt obligations. Any repayment of notes is subject to the issuer's ability to repay its obligations. ETNs do not typically pay interest.

Leveraged ETFs: Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their fund objectives on a daily basis (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e. 200%, 300%, -200%, or -300% or 2X, 3X, -2X, -3X). Compounding has the ability to affect the performance of the fund to be either greater or less than the index performance multiplied by the multiple stated within the funds objective over a stated time period.

Short Positions: When a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

Long-Short: Due to the strategies used by long-short funds, which may include but are not limited to leverage, short selling, short-term trading, and investing in derivatives, these funds may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

Liquidity Risk: Closed-end fund, ETF, and HOLDR trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

Market Price Risk: The market price of ETFs, HOLDRs, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

Market Risk: The market prices of ETFs and HOLDRs can fluctuate as a result of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

Target-Date Funds: Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximate date when investors expect to begin withdrawing their money. A target-date fund's investment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including at the fund's target date.

High double- and triple-digit returns: High double- and triple-digit returns were the result of extremely favorable market conditions, which may not continue to be the case. High returns for short time periods must not be a major factor when making investment decisions.

Benchmark Disclosure

BBgBarc US Agg Bond TR USD
This index is composed of the BarCap Government/Credit Index, the Mortgage-Backed Securities Index, and the Asset-Backed Securities Index. The returns we publish for the index are total returns, which includes the daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core US Aggregate Bond ETF.

BBgBarc US Government Long TR USD
Includes those indexes found in the BarCap Government index which have a maturity of 10 years or more. The constituents displayed for this index are from the following proxy: iShares 20+ Year Treasury Bond ETF.

MSCI EAFE NR USD

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

This Europe, Australasia, and Far East index is a market-capitalization-weighted index of 21 non-U.S., industrialized country indexes.

This disclosure applies to all MSCI indices: Certain information included herein is derived by Morningstar in part from MSCI's Index Constituents (the "Index Data"). However, MSCI has not reviewed any information contained herein and does not endorse or express any opinion such information or analysis. MSCI does not make any express or implied warranties, representations or guarantees concerning the Index Data or any information or data derived therefrom, and in no event will MSCI have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of this information.

S&P 500 TR USD

A market capitalization-weighted index composed of the 500 most widely held stocks whose assets and/or revenues are based in the US; it's often used as a proxy for the U.S. stock market. TR (Total Return) indexes include daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: SPDR® S&P 500 ETF Trust.

USTREAS T-Bill Auction Ave 3 Mon

Three-month T-bills are government-backed, short-term investments considered to be risk-free and as good as cash because the maturity is only three months. Morningstar collects yields on the T-bill on a weekly basis from the Wall Street Journal.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Vanguard Total Bond Market Index Fund Institutional Plus Shares (VBMPX)

Firm Background*

The Vanguard Group, Inc. is one of the largest providers of low-cost mutual funds and index-tracking products. Jack Bogle founded Vanguard in 1975 with the philosophy that low costs are crucial to generate consistently attractive investment performance. Vanguard was the first firm to provide widespread passive index products to retail investors. Over time, Vanguard expanded its product set to include various asset classes and actively managed funds. Vanguard's active products are either managed internally or subadvised by external asset managers. Equity strategies represent more than two-thirds of firm assets, fixed income strategies account for approximately 25% of assets, and cash and multi-asset strategies comprise the balance of assets. The firm's client mix is approximately 60% institutional and 40% retail investors.

Headquartered in Malvern, PA, Vanguard employs over 17,000 people. The firm has offices around the world, but investment management is concentrated in a limited number of them (Malvern; Melbourne, Australia; and London, UK). The firm is owned by its own investment funds, which are, in turn, owned by their shareholders. As a result, Vanguard's fund investors indirectly own the firm. Fund management fees pay for the firm's expenses and Vanguard reinvests profits to lower future expense ratios. Effective January 1, 2018, Tim Buckley succeeded William McNabb as Vanguard's Chief Executive Officer. Mr. Buckley joined the firm in 1991 and has held a number of senior leadership positions during his tenure. Mr. McNabb will remain chairman of Vanguard's board, a role he has held since 2009.

Organization: Satisfactory (4 out of 5)*

Vanguard has a decades-long legacy of client service and thoughtful product development that dates to its founding as an indexing provider. It launches funds after thorough consideration of where it believes product offerings are consistent with investor interests as well as the firm's philosophy and long-term focus. In our view, Vanguard's mutual fund ownership structure has both advantages and disadvantages. For instance, the firm's trademark low fees provide Vanguard with a persistent return advantage over peers, which contributes to the strength of the franchise. These low fees are a direct result of the ownership structure, which has also greatly contributed to the firm's considerable level of assets under management. On the other hand, a disadvantage of the firm's ownership structure is that it does not allow employees to benefit from a profit sharing or equity compensation scheme; although, Vanguard does make use of deferred bonus compensation for key executives and investment professionals. The firm actively rotates senior employees across roles and disciplines. While this may result in longevity and broad perspectives, it reduces specialization and tenure in the roles left behind. Vanguard has experienced tremendous growth over the past decade to become one of the world's largest asset managers. Along with this growth, the firm has had to address the issues that often accompany a significant increase in AUM.

Fund Strategy**

Vanguard Total Bond Market Index Fund seeks to track the performance of a broad, market-weighted bond index.

The fund employs an indexing investment approach designed to track the performance of the Bloomberg Barclays U.S. Aggregate Float Adjusted Bond Index. This index measures a wide spectrum of public, investment-grade, taxable, fixed income securities in the United States—including government, corporate, and international dollar-denominated bonds, as well as mortgage-backed and asset-backed securities, all with maturities of more than 1 year. The fund invests by sampling the index, meaning that it holds a range of securities that, in the aggregate, approximate the full index in terms of key risk factors and other

characteristics. All of the fund's investments will be selected through the sampling process, and at least 80% of the fund's assets will be invested in bonds held in the index. The fund maintains a dollar-weighted average maturity consistent with that of the index, which currently ranges between 5 and 10 years.

Summary***

Vanguard Total Bond Market Index is a great core bond holding. Under our enhanced ratings framework, which places a greater emphasis on fees, the Morningstar Analyst Rating for the strategy's cheapest share classes has been upgraded to Gold from Silver. The strategy's more expensive Admiral and Investor share classes are rated Silver and Bronze rating, respectively.

The strategy tracks the Bloomberg Barclays U.S. Aggregate Float-Adjusted Index, which includes investment-grade U.S. dollar-denominated bonds with at least one year until maturity. The index is weighted by market-value, tilting the portfolio toward the largest, most liquid issues, which tend to be easy to obtain and cheap to trade. The float adjustment excludes the value of bonds held by the Federal reserve from the weighting calculations, which slightly increases the fund's exposure to agency mortgage-backed securities. The float adjustment should not have a material impact. The fund's weighting approach harnesses the market's collective wisdom about the relative value of each security. That said, bond issuing activity influences the composition of this portfolio.

The U.S. government is the largest debt issuer in the nation, so the portfolio maintains a larger position in treasuries relative to the intermediate core bond Morningstar Category average. The strategy invests just about 65% of its assets in treasuries and agency MBS, which carry AAA ratings, while the category average is about 45%. While this might limit the fund's return potential, its lower credit risk should offer better downside protection.

This is a conservative portfolio with minimal credit risk, which can make it a low hurdle for active managers. That does not make this an unattractive investment, as risk and return are highly correlated in the fixed-income market. Approximately 65% of the assets in this portfolio carry an AAA rating, making it one of the more conservative options in the category. After controlling for risk, this portfolio is tougher to beat.

Performance***

The fund's performance during the trailing 10 years through May 2020 has been solid. It beat the category average by 6 basis points annually, ranking in the category's middle third, as its cost advantage offset the lower returns from its more conservative portfolio.

The fund's category-relative performance is largely related to credit spreads, given its Treasury-heavy tilt. The fund has tended to outperform category peers when credit spreads widen, and lag when they tighten. For example, it outperformed its average category peer by 93 basis points during 2011, as the ICE Bank of America BBB OAS Spread widened by 1.04%. Conversely, the fund lagged the category average by 1.61% during 2012, as that spread tightened by 1.07%.

The fund's conservative credit risk should help it weather periods of market turmoil better than most category peers. For instance, it did not decline by nearly as much as the category average during the onset of the coronavirus-driven crisis between Feb. 19 and March 23, 2020. During that time, the exchange-traded share class fell by 1.04%, while the category average fell by 3.15%.

Like most investment-grade bond funds, interest-rate risk is the primary driver of this portfolio's absolute returns.

Price***

It’s critical to evaluate expenses, as they come directly out of returns. The share class on this report levies a fee that ranks in its Morningstar category’s cheapest quintile. Based on our assessment of the fund’s People, Process and Parent pillars in the context of these fees, we think this share class will be able to deliver positive alpha relative to the category benchmark index, explaining its Morningstar Analyst Rating of Gold.

Process: Above Average***

This portfolio replicates the composition of the U.S.-dollar-denominated investment-grade bond market, effectively harnessing the market’s collective wisdom about the relative value of each bond. This is a sound approach because it promotes low turnover, it is cost-effective, and the market does a decent job pricing these bonds. It earns an Above Average Pillar process rating.

The strategy employs representative sampling to track the performance of the Bloomberg Barclays U.S. Aggregate Float-Adjusted Index, which includes investment-grade U.S.-dollar-denominated bonds with at least one year until maturity. Qualifying bonds must have at least $300 million in outstanding face value. The float adjustment excludes holdings in the Federal Reserve’s account, which should not have a significant impact on the composition of the portfolio.

The index weights its holdings by market value and is rebalanced monthly. This yields a conservative portfolio, which limits its return potential but also cuts downside risk and makes this a good complement for stock holdings.

While it may seem risky to allocate larger weightings to bigger debt issuers, this is a very conservative portfolio, largely because U.S. Treasury and agency MBS represent most of the U.S. investment-grade market. These securities are rated AAA.

As of May 2020, just about 40% of the fund’s assets were in Treasury bonds, while the corresponding figure for the category average is slightly more than 20%. The bulk of the fund’s remaining balance is composed of corporate bonds and agency MBS, which represent about 28% and 23% of the portfolio’s assets, respectively. While this limits the fund’s potential for returns, it also limits potential losses.

Although corporate bonds only represent about one fourth of the portfolio, these holdings are where most of the fund’s credit risk resides. In addition to the growth of the Treasury bonds, the U.S. corporate bond market also grew in response to the financial crisis of 2008, as companies issued debt to capitalize on low interest rates. As a result, BBB rated corporate bonds grew rapidly and now represent about half of the market value of all investment-grade corporate bonds. Accordingly, just over 15% of the strategy’s assets are rated BBB.

The fund’s interest-rate risk is line with the intermediate core bond category average. As of May 2020, its average effective duration was 6.0 years.

People: Above Average***

An experienced team manages all of Vanguard's fixed-income index strategies, supporting a positive People Pillar rating.

Joshua Barrickman was named as manager in 2013. He has worked in investment management at Vanguard since 1999 and managed investment portfolios since 2005. In 2013, he was promoted to head of Vanguard's Bond Index Group.

Portfolio management at Vanguard is a team effort, so key-person risk is not a concern. Barrickman leads a team of sector specialists, including a manager focused on government bonds, along with an ETF team, which helps with ETF basket creation. These managers are also supported by a team of traders who focus on execution, as well as a data team that checks incoming index data and helps the managers prepare for upcoming index changes. These teams free up time for the managers to focus on portfolio construction and index tracking. There's also a separate risk management team that independently monitors the managers' performance.

Although fund managers are not required to invest in this strategy, Vanguard aligns managers' incentives with investors' by tying their compensation and performance evaluation to the strategy's tracking error.

* Source: BNY Mellon Manager Research Group, as of December 2019
** Source: Vanguard Group, Inc., as of 6/30/2020
*** Source: Morningstar, Inc., as of 7/11/2020

Release date 07-31-2020 | Note: Portions of the analysis are based on pre-inception returns. Please read disclosure for more information. Page 1 of 11

Vanguard Total Bond Market Idx InstIPls (USD)

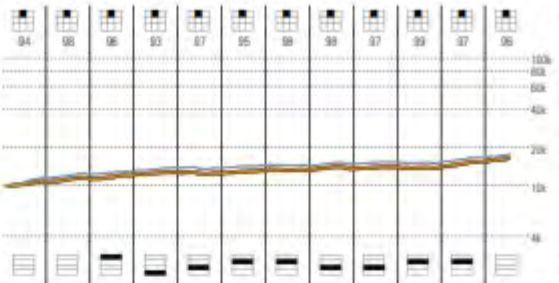
Morningstar Analyst Rating™ Gold 07-12-2020

Overall Morningstar Rating™ ★★★★ 375 US Fund Intermediate Core Bond

Standard Index BBgBarc US Agg Bond TR USD

Category Index BBgBarc US Agg Bond TR USD

Morningstar Cat US Fund Intermediate Core Bond



Investment Style
Fixed Income
Bond %

Growth of $10,000
- Vanguard Total Bond Market Idx InstIPls 16,474
- Category Average 17,655
- Standard Index 16,483

Performance Quartile (within category)

Performance 07-31-2020

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2018	-1.47	-0.17	0.03	1.62	-0.01
2019	2.95	3.08	2.43	0.03	8.74
2020	3.28	2.98	—	—	8.02

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	10.42	5.77	4.50	3.87	4.13
Std 06-30-2020	8.98	—	4.33	3.81	4.01
Total Return	10.42	5.77	4.50	3.87	4.13
+/- Std Index	0.30	0.08	0.03	0.00	—
+/- Cat Index	0.30	0.08	0.03	0.00	—
% Rank Cat	23	19	23	44	
No. in Cat	418	375	331	248	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 08-04-20	1.18	1.18

History	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	07-20
NAV/Price	—	10.60	11.00	11.09	10.56	10.87	10.64	10.65	10.75	10.45	11.06	11.77
Total Return %	5.93	6.57	7.14	4.20	-2.12	5.92	0.42	2.62	3.59	-3.01	8.74	8.02
+/- Standard Index	0.00	0.03	-0.10	-0.01	-0.09	-0.05	-0.13	-0.03	0.04	-0.02	0.02	0.30
+/- Category Index	0.00	0.03	-0.10	-0.01	-0.09	-0.05	-0.13	-0.03	0.04	-0.02	0.02	0.30
% Rank Cat	—	—	11	62	67	29	27	62	54	30	33	—
No. of Funds in Cat	—	—	1195	1165	1079	1038	1042	985	986	1019	430	424

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.03
12b1 Expense %	NA
Net Expense Ratio %	**0.03**
Gross Expense Ratio %	**0.03**

Risk and Return Profile

	3 Yr. 325 funds	5 Yr. 331 funds	10 Yr. 248 funds
Morningstar Rating™	4★	4★	3★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	+Avg	+Avg	Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	3.38	3.23	3.07
Mean	5.77	4.50	3.87
Sharpe Ratio	1.19	1.03	1.06

MPT Statistics	Standard Index	Best Fit Index BBgBarc US Agg Bond TR USD
Alpha	-0.02	0.02
Beta	1.01	1.01
R-Squared	98.31	98.31
12-Month Yield		2.42%
Potential Cap Gains Exp		3.47%

Portfolio Analysis 06-30-2020

Asset Allocation %	Net %	Long %	Short %
Cash	3.56	3.56	0.00
US Stocks	0.00	0.00	0.00
Non-US Stocks	0.00	0.00	0.00
Bonds	95.60	95.62	0.02
Other/Not Clsfd	0.84	0.84	0.00
Total	100.00	100.02	0.02

Equity Style

Value	Blend	Growth	
			Large
			Med
			Sml

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	—	—	—
P/C Ratio TTM	—	—	—
P/B Ratio TTM	—	—	—
Geo Avg Mkt Cap $mil	—	—	—

Fixed-Income Style

Ltd	Mod	Ext	
			High
			Med
			Low

Avg Eff Maturity	8.40
Avg Eff Duration	6.45
Avg Wtd Coupon	3.09
Avg Wtd Price	111.86

Credit Quality Breakdown 06-30-2020

	Bond %
AAA	67.55
AA	3.43
A	11.37
BBB	17.65
BB	0.00
B	0.00
Below B	0.00
NR	0.00

Regional Exposure	Stocks %	Rel Std Index
Americas	—	—
Greater Europe	—	—
Greater Asia	—	—

Share Chg since 05-2020	Share Amount	Holdings: 0 Total Stocks, 15,474 Total Fixed-Income, 31% Turnover Ratio	Net Assets %
⊕	89 mil	Vanguard Market Liquidity Inv	3.49
✡	1,595 mil	Federal National Mortgage Associat	0.58
⊕	1,444 mil	United States Treasury Bonds 1.25%	0.49
⊕	1,378 mil	United States Treasury Notes 0.62%	0.48
✡	1,232 mil	Federal National Mortgage Associat	0.46
	1,040 mil	United States Treasury Notes 2.88%	0.43
	1,111 mil	United States Treasury Notes 2.12%	0.42
	1,092 mil	United States Treasury Notes 2%	0.41
	1,100 mil	United States Treasury Notes 1.5%	0.41
	1,083 mil	United States Treasury Notes 2.25%	0.39
✡	1,103 mil	United States Treasury Notes 0.25%	0.39
	985 mil	United States Treasury Notes 1.62%	0.37
	867 mil	United States Treasury Notes 3.12%	0.37
⊕	904 mil	United States Treasury Notes 2.38%	0.37
⊕	953 mil	United States Treasury Notes 2.12%	0.36

Sector Weightings	Stocks %	Rel Std Index
Cyclical	—	—
Basic Materials	—	—
Consumer Cyclical	—	—
Financial Services	—	—
Real Estate	—	—
Sensitive	—	—
Communication Services	—	—
Energy	—	—
Industrials	—	—
Technology	—	—
Defensive	—	—
Consumer Defensive	—	—
Healthcare	—	—
Utilities	—	—

Operations

Family:	Vanguard	Base Currency:	USD	Purchase Constraints:	—
Manager:	Joshua Barrickman	Ticker:	VBMPX	Incept:	02-05-2010
Tenure:	7.5 Years	ISIN:	US9219377853	Type:	MF
Objective:	Income	Minimum Initial Purchase:	$100 mil	Total Assets:	$287,146.54 mil

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Standardized and Tax Adjusted Returns Disclosure Statement

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end please visit http://advisor.morningstar.com/familyinfo.asp.

Standardized Returns assume reinvestment of dividends and capital gains. They depict performance without adjusting for the effects of taxation, but are adjusted to reflect sales charges and ongoing fund expenses.

If adjusted for taxation, the performance quoted would be significantly reduced. For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges. The maximum redemption fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase.

After-tax returns are calculated using the highest individual federal marginal income tax rates, and do not reflect the impact of state and local taxes. Actual after-tax returns depend on the investor's tax situation and may differ from those shown. The after-tax returns shown are not relevant to investors who hold their fund shares through tax-deferred arrangements such as 401(k) plans or an IRA. After-tax returns exclude the effects of either the alternative minimum tax or phase-out of certain tax credits. Any taxes due are as of the time the distributions are made, and the taxable amount and tax character of each distribution are as specified by the fund on the dividend declaration date. Due to foreign tax credits or realized capital losses, after-tax returns may be greater than before-tax returns. After-tax returns for exchange-traded funds are based on net asset value.

Money Market Fund Disclosures

If money market fund(s) are included in the Standardized Returns table below, each money market fund's name will be followed by a superscripted letter that links it to the applicable disclosure below:

Institutional Money Market Funds (designated by an "S"):

You could lose money by investing in the fund. Because the share price of the fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "L") and

Retail Money Market Funds (designated by an "L"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. The fund may impose a fee upon sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Government Money Market Funds that have chosen not to rely on the ability to impose liquidity fees and suspend redemptions (designated by an "N"):

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Annualized returns 06-30-2020

Standardized Returns (%)	7-day Yield Subsidized as of date	7-day Yield Unsubsidized as of date	YTD	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
Vanguard Total Bond Market Idx InstPls	—	—	8.99	4.33	3.91	4.61	02-05-2010	NA	NA	0.03	0.03	NA
BBgBarc US Agg Bond TR USD			**8.74**	**4.30**	**3.82**	**—**	**01-03-1990**					
MSCI EAFE NR USD			**-5.13**	**2.05**	**5.73**	**—**	**03-31-1986**					
S&P 500 TR USD			**7.51**	**10.73**	**13.99**	**—**	**09-11-1989**					
USTREAS T-Bill Auction Ave 3 Mon			**1.26**	**1.17**	**0.62**	**—**	**02-28-1941**					

MORNINGSTAR

Annualized returns 06-30-2020

Return after Tax (%)	On Distribution					On Distribution and Sales of Shares			
	1Yr	5Yr	10Yr	Since Inception	Inception Date	1Yr	5Yr	10Yr	Since Inception
Vanguard Total Bond Market Idx InstPls	7.85	3.19	2.62	2.82	02-05-2010	5.29	2.81	2.44	2.80

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Mutual Fund Detail Report Disclosure Statement

The Mutual Fund Detail Report is supplemental sales literature, and therefore must be preceded or accompanied by the mutual fund's current prospectus or an equivalent statement. Please read this information carefully. In all cases, this disclosure statement should accompany the Mutual Fund Detail Report. Morningstar is not itself a FINRA-member firm.

All data presented is based on the most recent information available to Morningstar as of the release date and may or may not be an accurate reflection of current data for securities included in the fund's portfolio. There is no assurance that the data will remain the same.

Unless otherwise specified, the definition of "funds" used throughout this Disclosure Statement includes closed-end funds, exchange-traded funds, grantor trusts, index mutual funds, open-ended mutual funds, and unit investment trusts. It does not include exchange-traded notes or exchange-traded commodities.

Prior to 2016, Morningstar's methodology evaluated open-end mutual funds and exchange-traded funds as separate groups. Each group contained a subset of the current investments included in our current comparative analysis. In this report, historical data presented on a calendar-year basis and trailing periods ending at the most-recent month-end reflect the updated methodology.

Risk measures (such as alpha, beta, r-squared, standard deviation, mean, or Sharpe ratio) are calculated for securities or portfolios that have at least a three-year history.

Most Morningstar rankings do not include any adjustment for one-time sales charges, or loads. Morningstar does publish load-adjusted returns, and ranks such returns within a Morningstar Category in certain reports. The total returns for ETFs and fund share classes without one-time loads are equal to Morningstar's calculation of load-adjusted returns. Share classes that are subject to one-time loads relating to advice or sales commissions have their returns adjusted as part of the load-adjusted return calculation to reflect those loads.

Comparison of Fund Types

Funds, including closed-end funds, exchange-traded funds (ETFs), money market funds, open-end funds, and unit investment trusts (UITs), have many similarities, but also many important differences. In general, publically-offered funds are investment companies registered with the Securities and Exchange Commission under the Investment Company Act of 1940, as amended. Funds pool money from their investors and manage it according to an investment strategy or objective, which can vary greatly from fund to fund. Funds have the ability to offer diversification and professional management, but also involve risk, including the loss of principal.

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. A closed-end mutual fund's expense ratio is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Closed-end funds may also have 12b-1 fees. Income distributions and capital gains of the closed-end fund are subject to income tax, if held in a taxable account.

An ETF is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, an ETF can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. ETFs are not actively managed, so their value may be affected by a general decline in the U.S. market segments relating to their underlying indexes. Similarly, an imperfect match between an ETF's holdings and those of its underlying index may cause its performance to vary from that of its underlying index. The expense ratio of an ETF is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. ETFs do not have 12b-1 fees or sales loads. Capital gains from funds held in a taxable account are subject to income tax. In many, but not all cases, ETFs are generally considered to be more tax-efficient when compared to similarly invested mutual funds.

Holding company depository receipts (HOLDRs) are similar to ETFs, but they focus on narrow industry groups. HOLDRs initially own 20 stocks, which are unmanaged, and can become more concentrated due to mergers, or the disparate performance of their holdings. HOLDRs can only be bought in 100-share increments. Investors may exchange shares of a HOLDR for its underlying stocks at any time.

A money-market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and are not guaranteed by a bank or other financial institution.

An open-end fund is an investment company that issues shares on a continuous basis. Shares can be purchased from the open-end mutual fund itself, or through an intermediary, but cannot be traded on a secondary market, such as the New York Stock Exchange. Investors pay the open-end mutual fund's current net asset value plus any initial sales loads. Net asset value is calculated daily, at the close of business. Open-end mutual fund shares can be redeemed, or sold back to the fund or intermediary, at their current net asset value minus any deferred sales loads or redemption fees. The expense ratio for an open-end mutual fund is an annual fee charged to a shareholder. It includes operating expenses and management fees, but does not take into account any brokerage costs. Open-end funds may also have 12b-1 fees. Income distributions and capital gains of the open-end fund are subject to income tax, if held in a taxable account.

A unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units. A one-time initial sales charge is deducted from an investment made into the trust. UIT investors may also pay creation and development fees, organization costs, and/or trustee and operation expenses. UIT units may be redeemed by the sponsor at their net

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

asset value minus a deferred sales charge, and sold to other investors. UITs have set termination dates, at which point the underlying securities are sold and the sales proceeds are paid to the investor. Typically, a UIT investment is rolled over into successive trusts as part of a long-term strategy. A rollover fee may be charged for the exercise of rollover purchases. There are tax consequences associated with rolling over an investment from one trust to the next.

Performance

The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares, when sold, may be worth more or less than the original investment. Fund portfolio statistics change over time. Funds are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution.

Morningstar calculates after-tax returns using the highest applicable federal marginal income tax rate plus the investment income tax and Medicare surcharge. As of 2018, this rate is 37% plus 3.8% investment income plus 0.9% Medicare surcharge, or 41.7%. This rate changes periodically in accordance with changes in federal law.

Pre-Inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the inception of the share class of the fund shown in this report ("Report Share Class"). If pre-inception returns are shown, a performance stream consisting of the Report Share Class and older share class(es) is created. Morningstar adjusts pre-inception returns downward to reflect higher expenses in the Report Share Class, we do not hypothetically adjust returns upwards for lower expenses. For more information regarding calculation of pre-inception returns please see the Morningstar Extended Performance Methodology.

When pre-inception data is presented in the report, the header at the top of the report will indicate this. In addition, the pre-inception data included in the report will appear in italics.

While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of newer share classes of a fund, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. For example, the fee structures of a retail share class will vary from that of an institutional share class, as retail shares tend to have higher operating expenses and sales charges. These adjusted historical returns are not actual returns. The underlying investments in the share classes used to calculate the pre-performance string will likely vary from the underlying investments held in the fund after inception. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the fund itself.

12b1 Expense %

A 12b-1 fee is a fee used to pay for a mutual fund's distribution costs. It is often used as a commission to brokers for selling the fund. The amount of the fee is taken from a fund's returns.

Alpha

Alpha is a measure of the difference between a security or portfolio's actual returns and its expected performance, given its level of risk (as measured by beta.) Alpha is often seen as a measure of the value added or subtracted by a portfolio manager.

Asset Allocation

Asset Allocation reflects asset class weightings of the portfolio. The "Other" category includes security types that are not neatly classified in the other asset classes, such as convertible bonds and preferred stocks, or cannot be classified by Morningstar as a result of missing data. Morningstar may display asset allocation data in several ways, including tables or pie charts. In addition, Morningstar may compare the asset class breakdown of the fund against its three-year average, category average, and/or index proxy.

Asset allocations shown in tables may include a breakdown among the long, short, and net (long positions net of short) positions. These statistics summarize what the fund's managers are buying and how they are positioning the fund's portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the fund's exposure and risk. Long positions involve buying the security outright and selling it later, with the hope the security's price rises over time. Short positions are taken with the hope of benefitting from anticipated price declines. The investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience a loss buying it at a higher price than the sale price.

Most fund portfolios hold fairly conventional securities, such as long positions in equities and bonds. Morningstar may generate a colored pie chart for these portfolios. Other portfolios use other investment strategies or securities, such as short positions or derivatives, in an attempt to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while other have unique return and risk characteristics. Portfolios that incorporate investment strategies resulting in short positions or portfolio with relatively exotic derivative positions often report data to Morningstar that does not meet the parameters of the calculation underlying a pie chart's generation. Because of the nature of how these securities are reported to Morningstar, we may not always get complete portfolio information to report asset allocation. Morningstar, at its discretion, may determine if unidentified characteristics of fund holdings are material. Asset allocation and other breakdowns may be rescaled accordingly so that percentages total to 100 percent. (Morningstar used discretion to determine if unidentified characteristics of fund holdings are material, pie charts and other breakdowns may rescale identified characteristics to 100% for more intuitive presentation.)

Note that all other portfolio statistics presented in this report are based on the long (or long rescaled) holdings of the fund only.

Average Effective Duration

Duration is a time measure of a bond's interest-rate sensitivity. Average effective duration is a weighted average of the duration of the fixed-income securities within a portfolio.

Average Effective Maturity

Average Effective Maturity is a weighted average of the maturities of all bonds in a portfolio.

Average Weighted Coupon

A coupon is the fixed annual percentage paid out on a bond. The average weighted coupon is the asset-weighted coupon of each bond in the portfolio.

Average Weighted Price

Average Weighted Price is the asset-weighted price of bonds held in a portfolio, expressed as a percentage of par (face) value. This number reveals if the portfolio favors bonds selling at prices above or below par value (premium or discount securities respectively.)

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Best Fit Index
Alpha, beta, and R-squared statistics are presented for a broad market index and a "best fit" index. The Best Fit Index identified in this report was determined by Morningstar by calculating R-squared for the fund against approximately 100 indexes tracked by Morningstar. The index representing the highest R-squared is identified as the best fit index. The best fit index may not be the fund's benchmark, nor does it necessarily contain the types of securities that may be held by the fund or portfolio.

Beta
Beta is a measure of a security or portfolio's sensitivity to market movements (proxied using an index.) A beta of greater than 1 indicates more volatility than the market, and a beta of less than 1 indicates less volatility than the market.

Credit Quality Breakdown
Credit Quality breakdowns are shown for corporate-bond holdings in the fund's portfolio and depict the quality of bonds in the underlying portfolio. It shows the percentage of fixed-income securities that fall within each credit-quality rating as assigned by a Nationally Recognized Statistical Rating Organization (NRSRO). Bonds not rated by an NRSRO are included in the Other/Not-Classified category.

Deferred Load %
The back-end sales charge or deferred load is imposed when an investor redeems shares of a fund. The percentage of the load charged generally declines the longer the fund's shares are held by the investor. This charge, coupled with 12b-1 fees, commonly serves as an alternative to a traditional front-end load.

Expense Ratio %
The expense ratio is the annual fee that all funds charge their shareholders. It expresses the percentage of assets deducted each fiscal year for fund expenses, including 12b-1 fees, management fees, administrative fees, operating costs, and all other asset-based costs incurred by the fund. Portfolio transaction fees, or brokerage costs, as well as front-end or deferred sales charges are not included in the expense ratio. The expense ratio, which is deducted from the fund's average net assets, is accrued on a daily basis. The gross expense ratio, in contrast to the net expense ratio, does not reflect any fee waivers in effect during the time period.

Front-end Load %
The initial sales charge or front-end load is a deduction made from each investment in the fund and is generally based on the amount of the investment.

Geometric Average Market Capitalization
Geometric Average Market Capitalization is a measure of the size of the companies in which a portfolio invests.

Growth of 10,000
For funds, this graph compares the growth of an investment of 10,000 (in the base currency of the fund) with that of an index and/or with that of the average for all funds in its Morningstar Category. The total returns are not adjusted to reflect sales charges or the effects of taxation but are adjusted to reflect actual ongoing fund expenses, and they assume reinvestment of dividends and capital gains. If adjusted, effects of sales charges and taxation would reduce the performance quoted. If pre-inception data is included in the analysis, it will be graphed.

The index in the Growth of 10,000 graph is an unmanaged portfolio of specified securities and cannot be invested in directly. The index does not reflect any initial or ongoing expenses. A fund's portfolio may differ significantly from the securities in the index. The index is chosen by Morningstar.

Management Fees %
The management fee includes the management and administrative fees listed in the Management Fees section of a fund's prospectus. Typically, these fees represent the costs shareholders paid for management and administrative services over the fund's prior fiscal year.

Maximum Redemption Fee %
The Maximum Redemption Fee is the maximum amount a fund may charge if redeemed in a specific time period after the fund's purchase (for example, 30, 180, or 365 days).

Mean
Mean is the annualized geometric return for the period shown.

Morningstar Analyst Rating™
Effective October 31, 2019, Morningstar updated its Morningstar Analyst Rating™ methodology. For any Morningstar Analyst Rating published on or prior to October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark, or in the case of exchange-traded funds and index mutual funds, a relevant peer group, over the long term on a risk-adjusted basis. They consider quantitative and qualitative factors in their research, and the weight of each pillar may vary. The Analyst Rating scale is Gold, Silver, Bronze, Neutral, and Negative. A Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's conviction in a fund's prospects for outperformance. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at east every 14 months. For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to global.morningstar.com/managerdisclosures/.

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

For any Morningstar Analyst Rating published after October 31, 2019, the following disclosure applies:

The Morningstar Analyst Rating™ is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five-pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark over the long term on a risk adjusted basis. They consider quantitative and qualitative factors in their research. For actively managed strategies, people and process each receive a 45% weighting in their analysis, while parent receives a 10% weighting. For passive strategies, process receives an 80% weighting, while people and parent each receive a

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

10% weighting. For both active and passive strategies, performance has no explicit weight as it is incorporated into the analysis of people and process; price at the share-class level (where applicable) is directly subtracted from an expected gross alpha estimate derived from the analysis of the other pillars. The impact of the weighted pillar scores for people, process and parent on the final Analyst Rating is further modified by a measure of the dispersion of historical alphas among relevant peers. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, the modification by alpha dispersion is not used.

For active funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that an active fund will be able to deliver positive alpha net of fees relative to the standard benchmark index assigned to the Morningstar category. The level of the rating relates to the level of expected positive net alpha relative to Morningstar category peers for active funds. For passive funds, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will be able to deliver a higher alpha net of fees than the lesser of the relevant Morningstar category median or 0. The level of the rating relates to the level of expected net alpha relative to Morningstar category peers for passive funds. For certain peer groups where standard benchmarking is not applicable, primarily peer groups of funds using alternative investment strategies, a Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's expectation that a fund will deliver a weighted pillar score above a predetermined threshold within its peer group. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at least every 14 months.

For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

Morningstar Quantitative Rating™

Morningstar's quantitative fund ratings consist of: (i) Morningstar Quantitative Rating (overall score), (ii) Quantitative Parent pillar, (iii) Quantitative People pillar, and (iv) Quantitative Process pillar (collectively the "Quantitative Fund Ratings".).The Quantitative Fund Ratings are calculated monthly and derived from the analyst-driven ratings of a fund's peers as determined by statistical algorithms. Morningstar, Inc. calculates Quantitative Fund Ratings for funds when an analyst rating does not exist as part of its qualitative coverage.

- ***Morningstar Quantitative Rating:*** Intended to be comparable to Morningstar's Analyst Ratings for open-end funds and ETFs, which is the summary expression of Morningstar's forward-looking analysis of a fund. The Morningstar Analyst Rating is based on the analyst's conviction in the fund's ability to outperform its peer group and/or relevant benchmark on a risk-adjusted basis over a full market cycle of at least 5 years. Ratings are assigned on a five-tier scale with three positive ratings of Gold, Silver, and Bronze, a Neutral rating, and a Negative rating. Morningstar calculates the Morningstar Quantitative Rating using a statistical model derived from the Morningstar Analyst Rating our fund analysts assign to open-end funds and ETFs. Please go to https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx for information about Morningstar Analyst Rating Morningstar's fund analysts assign to funds.

- ***Quantitative Parent pillar:*** Intended to be comparable to Morningstar's Parent pillar scores, which provides Morningstar's analyst opinion on the stewardship quality of a firm. Morningstar calculates the Quantitative Parent pillar using an algorithm designed to predict the Parent Pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative People pillar:*** Morningstar's People pillar scores, which provides Morningstar's analyst opinion on the fund manager's talent, tenure, and resources. Morningstar calculates the Quantitative People pillar using an algorithm designed to predict the People pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), Low (1).

- ***Quantitative Process Pillar:*** Intended to be comparable to Morningstar's Process pillar scores, which provides Morningstar's analyst opinion on the fund's strategy and whether the management has a competitive advantage enabling it to execute the process and consistently over time. Morningstar calculates the Quantitative Process pillar using an algorithm designed to predict the Process pillar score our fund analysts would assign to the fund. The quantitative pillar rating is expressed in both a rating and a numerical value as High (5), Above Average (4), Average (3), Below Average (2), and Low (1).

Morningstar Quantitative Ratings **have not been made available** to the issuer of the security prior to publication.

Risk Warning

The quantitative fund ratings are not statements of fact. Morningstar does not guarantee the completeness or accuracy of the assumptions or models used in determining the quantitative fund ratings. In addition, there is the risk that the return target will not be met due to such things as unforeseen changes in changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, and tax rate. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions. A change in the fundamental factors underlying the quantitative fund ratings can mean that the recommendation is subsequently no longer accurate.

For more information about Morningstar's quantitative methodology, please visit https://shareholders.morningstar.com/investor-relations/governance/Compliance--Disclosure/default.aspx

Morningstar Category

Morningstar Category is assigned by placing funds into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a fund's prospectus may not be sufficiently detailed for our proprietary classification methodology. Funds are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the fund is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

Morningstar Rank

Morningstar Rank is the total return percentile rank within each Morningstar Category. The highest (or most favorable) percentile rank is zero and the lowest (or least favorable) percentile rank is 100. Historical percentile ranks are based on a snapshot of a fund at the time of calculation.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Morningstar Rating™

The Morningstar Rating™for funds, or "star rating", is calculated for funds and separate accounts with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The Morningstar Rating does not include any adjustment for sales loads. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. For more information about the Morningstar Rating for funds, including its methodology, please go to global.morningstar.com/managerdisclosures

The Morningstar Return rates a fund's performance relative to other managed products in its Morningstar Category. It is an assessment of a product's excess return over a risk-free rate (the return of the 90-day Treasury Bill) in comparison with the products in its Morningstar category. In each Morningstar category, the top 10% of products earn a High Morningstar Return (High), the next 22.5% Above Average (+Avg), the middle 35% Average (Avg), the next 22.5% Below Average (-Ave), and the bottom 10% Low (Low). Morningstar Return is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Risk

Morningstar Risk evaluates a fund's downside volatility relative to that of other products in its Morningstar Category. It is an assessment of the variations in monthly returns, with an emphasis on downside variations, in comparison with the products in its Morningstar category. In each Morningstar category, the 10% of products with the lowest measured risk are described as Low Risk (Low), the next 22.5% Below Average (-Avg), the middle 35% Average (Avg), the next 22.5% Above Average (+Avg), and the top 10% High (High). Morningstar Risk is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Style Box™

The Morningstar Style Box™ reveals a fund's investment strategy as of the date noted on this report.

For equity funds, the vertical axis shows the market capitalization of the long stocks owned, and the horizontal axis shows the investment style (value, blend, or growth.) A darkened square in the style box indicates the weighted average style of the portfolio.

For fixed-income funds, the vertical axis shows the credit quality of the long bonds owned and the horizontal axis shows interest-rate sensitivity as measured by a bond's effective duration. Morningstar seeks credit rating information from fund companies on a periodic basis (for example, quarterly). In compiling credit rating information, Morningstar accepts credit ratings reported by fund companies that have been issued by all Nationally Recognized Statistical Rating Organizations. For a list of all NRSROs, please visit http://www.sec.gov/divisions/marketreg/ ratingagency.htm. Additionally, Morningstar accepts foreign credit ratings from widely recognized or registered rating agencies. If two rating organizations/ agencies have rated a security, fund companies are to report the lower rating; if three or more organizations/agencies have rated a security, fund companies are to report the median rating; and in cases where there are more than two organization/agency ratings and a median rating does not exist, fund companies are to use the lower of the two middle ratings.

Please Note: Morningstar, Inc. is not an NRSRO nor does it issue a credit rating on the fund. NRSRO or rating agency ratings can change from time to time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low," "medium," or "high" based on their average credit quality. Funds with a "low" credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; "medium" are those less than "AA-", but greater or equal to "BBB-"; and "high" are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index, which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal-bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases, static breakpoints are used. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-U.S. taxable and non-U.S. domiciled fixed-income funds, static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: more than 3.5 years but less than or equal to 6 years; (iii) Extensive: more than 6 years.

Interest-rate sensitivity for non-U.S. domiciled funds (excluding funds in convertible categories) may be measured with modified duration when effective duration is not available.

P/B Ratio TTM

The Price/Book Ratio (or P/B Ratio) for a fund is the weighted average of the P/B Ratio of the stocks in its portfolio. Book value is the total assets of a company, less total liabilities. The P/B ratio of a company is calculated by dividing the market price of its outstanding stock by the company's book value, and then adjusting for the number of shares outstanding. Stocks with negative book values are excluded from this calculation. It shows approximately how much an investor is paying for a company's assets based on historical valuations.

P/C Ratio TTM

The Price/Cash Flow Ratio (or P/C Ratio) for a fund is the weighted average of the P/C Ratio of the stocks in its portfolio. The P/C Ratio of a stock represents the amount an investor is willing to pay for a dollar generated from a company's operations. It shows the ability of a company to generate cash and acts as a gauge of liquidity and solvency.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein: (1) include the confidential and proprietary information of Morningstar; (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar; (3) may not be copied or redistributed; (4) do not constitute investment advice offered by Morningstar; (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

P/E Ratio TTM
The Price/Earnings Ratio (or P/E Ratio) for a fund is the weighted average of the P/E Ratios of the stocks in its portfolio. The P/E Ratio of a stock is the stock's current price divided by the company's trailing 12-month earnings per share. A high P/E Ratio usually indicates the market will pay more to obtain the company's earnings because it believes in the company's abilities to increase their earnings. A low P/E Ratio indicates the market has less confidence that the company's earnings will increase, however value investors may believe such stocks have an overlooked or undervalued potential for appreciation.

Percentile Rank in Category
Percentile Rank is a standardized way of ranking items within a peer group, in this case, funds within the same Morningstar Category. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable for returns (high returns), while higher percentile ranks are generally more favorable for risk measures (low risk).

Performance Quartile
Performance Quartile reflects a fund's Morningstar Rank.

Potential Capital Gains Exposure
Potential Capital Gains Exposure is an estimate of the percent of a fund's assets that represent gains. It measures how much the fund's assets have appreciated, and it can be an indicator of possible future capital gains distributions. A positive potential capital gains exposure value means that the fund's holdings have generally increased in value while a negative value means that the fund has reported losses on its book.

Quarterly Returns
Quarterly Return is calculated applying the same methodology as Total Return except it represents return through each quarter-end.

R-Squared
R-squared is the percentage of a security or portfolio's return movements that are explained by movements in its benchmark index, showing the degree of correlation between the security or portfolio and the benchmark. This figure is helpful in assessing how likely it is that beta and alpha are statistically significant. A value of 1 indicates perfect correlation between the security or portfolio and its benchmark. The lower the R-squared value, the lower the correlation.

Regional Exposure
The regional exposure is a display of the portfolio's assets invested in the regions shown on the report.

Sector Weightings
Super Sectors represent Morningstar's broadest classification of equity sectors by assigning the 11 equity sectors into three classifications. The Cyclical Super Sector includes industries significantly impacted by economic shifts, and the stocks included in these sectors generally have betas greater than 1. The Defensive Super Sector generally includes industries that are relatively immune to economic cycles, and the stocks in these industries generally have betas less than 1. The Sensitive Super Sector includes industries that ebb and flow with the overall economy, but not severely so. Stocks in the Sensitive Super Sector generally have betas that are close to 1.

Share Change
Shares Change represents the number of shares of a stock bought or sold by a fund since the previously reported portfolio of the fund.

Sharpe Ratio
Sharpe Ratio uses standard deviation and excess return (a measure of a security or portfolio's return in excess of the U.S. Treasury three-month Treasury Bill) to determine the reward per unit of risk.

Standard Deviation
Standard deviation is a statistical measure of the volatility of the security or portfolio's returns. The larger the standard deviation, the greater the volatility of return.

Standardized Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experience if the security was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Total Return
Total Return, or "Non Load-Adjusted Return", reflects performance without adjusting for sales charges (if applicable) or the effects of taxation, but it is adjusted to reflect all actual ongoing security expenses and assumes reinvestment of dividends and capital gains. It is the return an investor would have experienced if the fund was held throughout the period. If adjusted for sales charges and the effects of taxation, the performance quoted would be significantly reduced.

Total Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Trailing Returns
Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experienced if the fund was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Load-Adjusted Monthly Return is calculated applying the same methodology as Standardized Return, except that it represents return through month-end. As with Standardized Return, it reflects the impact of sales charges and ongoing fund expenses, but not taxation. If adjusted for the effects of taxation, the performance quoted would be significantly different.

Trailing Return +/- indicates how a fund has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

Investment Risks

International/Emerging Market Equities: Investing in international securities involves special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Sector Strategies: Portfolios that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

to increased industry-specific risks.

Non-Diversified Strategies: Portfolios that invest a significant percentage of assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

Small Cap Equities: Portfolios that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

Mid Cap Equities: Portfolios that invest in companies with market capitalization below $10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

High-Yield Bonds: Portfolios that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

Tax-Free Municipal Bonds: The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

Bonds: Bonds are subject to interest rate risk. As the prevailing level of bond interest rates rise, the value of bonds already held in a portfolio declines. Portfolios that hold bonds are subject to declines and increases in value due to general changes in interest rates.

HOLDRs: The investor should note that these are narrow industry-focused products that, if the industry is hit by hard times, will lack diversification and possible loss of investment would be likely. These securities can trade at a discount to market price, ownership is of a fractional share interest, the underlying investments may not be representative of the particular industry, the HOLDR might be delisted from the AMEX if the number of underlying companies drops below nine, and the investor may experience trading halts.

Hedge Funds: The investor should note that hedge fund investing involves specialized risks that are dependent upon the type of strategies undertaken by the manager. This can include distressed or event-driven strategies, long/short strategies, using arbitrage (exploiting price inefficiencies), international investing, and use of leverage, options and/or derivatives. Although the goal of hedge fund managers may be to reduce volatility and produce positive absolute return under a variety of market conditions, hedge funds may involve a high degree of risk and are suitable only for investors of substantial financial means who could bear the entire loss of their investment.

Bank Loan/Senior Debt: Bank loans and senior loans are impacted by the risks associated with fixed income in general, including interest rate risk and default risk. They are often non-investment grade; therefore, the risk of default is high. These securities are also relatively illiquid. Managed products that invest in bank loans/senior debt are often highly leveraged, producing a high risk of return volatility.

Exchange Traded Notes (ETNs): ETNs are unsecured debt obligations. Any repayment of notes is subject to the issuer's ability to repay its obligations. ETNs do not typically pay interest.

Leveraged ETFs: Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their fund objectives on a daily basis (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e. 200%, 300%, -200%, or -300% or 2X, 3X, -2X, -3X). Compounding has the ability to affect the performance of the fund to be either greater or less than the index performance multiplied by the multiple stated within the funds objective over a stated time period.

Short Positions: When a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

Long-Short: Due to the strategies used by long-short funds, which may include but are not limited to leverage, short selling, short-term trading, and investing in derivatives, these funds may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

Liquidity Risk: Closed-end fund, ETF, and HOLDR trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

Market Price Risk: The market price of ETFs, HOLDRs, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

Market Risk: The market prices of ETFs and HOLDRs can fluctuate as a result of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

Target-Date Funds: Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximate date when investors expect to begin withdrawing their money. A target-date fund's investment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including at the fund's target date.

High double- and triple-digit returns: High double- and triple-digit returns were the result of extremely favorable market conditions, which may not continue to be the case. High returns for short time periods must not be a major factor when making investment decisions.

Benchmark Disclosure

BBgBarc US Agg Bond TR USD
This index is composed of the BarCap Government/Credit Index, the Mortgage-Backed Securities Index, and the Asset-Backed Securities Index. The returns we publish for the index are total returns, which includes the daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core US Aggregate Bond ETF.

MSCI EAFE NR USD
This Europe, Australasia, and Far East index is a market-capitalization-weighted index of 21 non-U.S., industrialized country indexes.

This disclosure applies to all MSCI indices: Certain information included herein is derived by Morningstar in part from MSCI's Index Constituents (the "Index

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Data"). However, MSCI has not reviewed any information contained herein and does not endorse or express any opinion such information or analysis. MSCI does not make any express or implied warranties, representations or guarantees concerning the Index Data or any information or data derived therefrom, and in no event will MSCI have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of this information.

S&P 500 TR USD

A market capitalization-weighted index composed of the 500 most widely held stocks whose assets and/or revenues are based in the US; it's often used as a proxy for the U.S. stock market. TR (Total Return) indexes include daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: SPDR® S&P 500 ETF Trust.

USTREAS T-Bill Auction Ave 3 Mon

Three-month T-bills are government-backed, short-term investments considered to be risk-free and as good as cash because the maturity is only three months. Morningstar collects yields on the T-bill on a weekly basis from the Wall Street Journal.

©2020 Morningstar. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial professional which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. Opinions expressed are as of the date written and are subject to change without notice. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement. Please see important disclosures at the end of this report.

MORNINGSTAR®

Year of Enrollment Portfolio Changes (July 2020)

DreamAhead Year of Enrollment Conservative Portfolios

Fund	Ticker	Current YoE 2036	Jul-2020 YoE 2036	Current YoE 2034	Jul-2020 YoE 2034	Current YoE 2032	Jul-2020 YoE 2032	Current YoE 2030	Jul-2020 YoE 2030	Current YoE 2028	Jul-2020 YoE 2028
Fidelity® Total Market Index Fund	FSKAX	15	13	13	12	10	9	8	7	5	4
Schwab Total Stock Market Index Fund®	SWTSX	14	13	13	11	10	9	7	6	5	4
Fidelity® International Index Fund	FSPSX	19	18	18	16	15	12	11	8	7	5
Fidelity® Emerging Markets Index Fund	FPADX	7	6	6	6	5	5	4	4	3	2
Fidelity® U.S. Bond Index Fund	FXNAX	17	20	20	21	24	26	28	29	28	26
Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	18	20	20	22	24	26	28	30	29	27
Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	3	3	3	4	4	4	4	5	4	4
Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	4	4	4	5	5	6	7	8	7	6
Vanguard Emerging Markets Government Bond Index Fund Institutional Shares	VGIVX	2	2	2	2	2	2	2	2	2	2
JPMorgan U.S. Government Money Market Fund Capital Shares	OGVXX	1	1	1	1	1	1	1	1	10	20
	Equity	55	50	50	45	40	35	30	25	20	15
	Fixed Income	44	49	49	54	59	64	69	74	70	65
	Cash	1	1	1	1	1	1	1	1	10	20
	Total	100	100	100	100	100	100	100	100	100	100

Fund	Ticker	Current YoE 2026	Jul-2020 YoE 2026	Current YoE 2024	Jul-2020 YoE 2024	Current YoE 2022	Jul-2020 YoE 2022	Current YoE 2020	Jul-2020 YoE 2020	Current YoE 2018	Jul-2020 YoE 2018
Fidelity® Total Market Index Fund	FSKAX	4	3	3	2	2	0	0	0	0	0
Schwab Total Stock Market Index Fund®	SWTSX	4	2	2	1	1	0	0	0	0	0
Fidelity® International Index Fund	FSPSX	5	4	4	2	2	0	0	0	0	0
Fidelity® Emerging Markets Index Fund	FPADX	2	1	1	0	0	0	0	0	0	0
Fidelity® U.S. Bond Index Fund	FXNAX	26	26	26	18	18	20	20	20	20	20
Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	27	27	27	18	18	21	21	21	21	21
Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	4	4	4	3	3	3	3	3	3	3
Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	6	6	6	4	4	4	4	4	4	4
Vanguard Emerging Markets Government Bond Index Fund Institutional Shares	VGIVX	2	2	2	2	2	2	2	2	2	2
JPMorgan U.S. Government Money Market Fund Capital Shares	OGVXX	20	25	25	50	50	50	50	50	50	50
	Equity	15	10	10	5	5	0	0	0	0	0
	Fixed Income	65	65	65	45	45	50	50	50	50	50
	Cash	20	25	25	50	50	50	50	50	50	50
	Total	100	100	100	100	100	100	100	100	100	100

Columns highlighted in blue were allocations as of 6/30/2020. Portfolio changes that occurred in July 2020 are highlighted in green. Portfolios not highlighted had no allocation changes.

DreamAhead Year of Enrollment Moderate Portfolios

Asset Category	Fund	Ticker	Current YoE 2036	Jul-2020 YoE 2036	Current YoE 2034	Jul-2020 YoE 2034	Current YoE 2032	Jul-2020 YoE 2032	Current YoE 2030	Jul-2020 YoE 2030	Current YoE 2028	Jul-2020 YoE 2028
U.S. Large Cap Blend	Fidelity® Total Market Index Fund	FSKAX	24	24	24	21	21	18	18	16	16	13
U.S. Large Cap Blend	Schwab Total Stock Market Index Fund®	SWTSX	23	23	23	21	21	18	18	16	16	13
Foreign Large Blend	Fidelity® International Index Fund	FSPSX	33	33	33	29	29	26	26	21	21	18
Diversified Emerging Mkts	Fidelity® Emerging Markets Index Fund	FPADX	10	10	10	9	9	8	8	7	7	6
Intermediate-Term Bond	Fidelity® U.S. Bond Index Fund	FXNAX	3	3	3	6	6	10	10	15	15	20
Intermediate-Term Bond	Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	2	2	2	6	6	10	10	15	15	20
Long Government	Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	1	1	1	2	2	3	3	3	3	3
Inflation-Protected Bond	Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	2	2	2	3	3	4	4	4	4	4
Emerging Markets Bond	Vanguard Emerging Markets Government Bond Index Fund Institutional Shares	VGIVX	1	1	1	2	2	2	2	2	2	2
Cash	JPMorgan U.S. Government Money Market Fund Capital Shares	OGVXX	1	1	1	1	1	1	1	1	1	1
		Equity	90	90	90	80	80	70	70	60	60	50
		Fixed Income	9	9	9	19	19	29	29	39	39	49
		Cash	1	1	1	1	1	1	1	1	1	1
		Total	100	100	100	100	100	100	100	100	100	100

Asset Category	Fund	Ticker	Current YoE 2026	Jul-2020 YoE 2026	Current YoE 2024	Jul-2020 YoE 2024	Current YoE 2022	Jul-2020 YoE 2022	Current YoE 2020	Jul-2020 YoE 2020	Current YoE 2018	Jul-2020 YoE 2018
U.S. Large Cap Blend	Fidelity® Total Market Index Fund	FSKAX	13	9	9	5	5	3	3	0	0	0
U.S. Large Cap Blend	Schwab Total Stock Market Index Fund®	SWTSX	13	9	9	5	5	2	2	0	0	0
Foreign Large Blend	Fidelity® International Index Fund	FSPSX	18	12	12	7	7	4	4	0	0	0
Diversified Emerging Mkts	Fidelity® Emerging Markets Index Fund	FPADX	6	5	5	3	3	1	1	0	0	0
Intermediate-Term Bond	Fidelity® U.S. Bond Index Fund	FXNAX	20	24	24	27	27	27	27	27	27	27
Intermediate-Term Bond	Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	20	25	25	28	28	28	28	28	28	28
Long Government	Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	3	4	4	5	5	5	5	5	5	5
Inflation-Protected Bond	Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	4	5	5	8	8	8	8	8	8	8
Emerging Markets Bond	Vanguard Emerging Markets Government Bond Index Fund Institutional Shares	VGIVX	2	2	2	2	2	2	2	2	2	2
Cash	JPMorgan U.S. Government Money Market Fund Capital Shares	OGVXX	1	5	5	10	10	20	20	30	30	30
		Equity	50	35	35	20	20	10	10	0	0	0
		Fixed Income	49	60	60	70	70	70	70	70	70	70
		Cash	1	5	5	10	10	20	20	30	30	30
		Total	100	100	100	100	100	100	100	100	100	100

Columns highlighted in blue were allocations as of 6/30/2020. Portfolio changes that occurred in July 2020 are highlighted in green. Portfolios not highlighted had no allocation changes.

DreamAhead Year of Enrollment Growth Portfolios

Asset Category	Fund	Ticker	Current YoE 2036	Jul-2020 YoE 2036	Current YoE 2034	Jul-2020 YoE 2034	Current YoE 2032	Jul-2020 YoE 2032	Current YoE 2030	Jul-2020 YoE 2030	Current YoE 2028	Jul-2020 YoE 2028
U.S. Large Cap Blend	Fidelity® Total Market Index Fund	FSKAX	25	25	25	24	24	24	24	22	22	21
U.S. Large Cap Blend	Schwab Total Stock Market Index Fund®	SWTSX	24	24	24	23	23	23	23	22	22	21
Foreign Large Blend	Fidelity® International Index Fund	FSPSX	35	35	35	33	33	33	33	31	31	29
Diversified Emerging Mkts	Fidelity® Emerging Markets Index Fund	FPADX	11	11	11	10	10	10	10	10	10	9
Intermediate-Term Bond	Fidelity® U.S. Bond Index Fund	FXNAX	1	1	1	3	3	3	3	3	3	6
Intermediate-Term Bond	Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	1	1	1	2	2	2	2	4	4	6
Long Government	Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	1	1	1	1	1	1	1	2	2	2
Inflation-Protected Bond	Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	0	0	0	2	2	2	2	3	3	3
Emerging Markets Bond	Vanguard Emerging Markets Government Bond Index Fund Institutional Shares	VGIVX	1	1	1	1	1	1	1	2	2	2
Cash	JPMorgan U.S. Government Money Market Fund Capital Shares	OGVXX	1	1	1	1	1	1	1	1	1	1
		Equity	95	95	95	90	90	90	90	85	85	80
		Fixed Income	4	4	4	9	9	9	9	14	14	19
		Cash	1	1	1	1	1	1	1	1	1	1
		Total	100	100	100	100	100	100	100	100	100	100

Asset Category	Fund	Ticker	Current YoE 2026	Jul-2020 YoE 2026	Current YoE 2024	Jul-2020 YoE 2024	Current YoE 2022	Jul-2020 YoE 2022	Current YoE 2020	Jul-2020 YoE 2020	Current YoE 2018	Jul-2020 YoE 2018
U.S. Large Cap Blend	Fidelity® Total Market Index Fund	FSKAX	21	18	16	13	11	8	5	3	3	3
U.S. Large Cap Blend	Schwab Total Stock Market Index Fund®	SWTSX	21	18	15	13	10	7	5	2	2	2
Foreign Large Blend	Fidelity® International Index Fund	FSPSX	29	26	22	18	14	11	7	4	4	4
Diversified Emerging Mkts	Fidelity® Emerging Markets Index Fund	FPADX	9	8	7	6	5	4	3	1	1	1
Intermediate-Term Bond	Fidelity® U.S. Bond Index Fund	FXNAX	6	10	15	20	24	28	33	24	24	24
Intermediate-Term Bond	Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	6	10	15	20	24	28	33	24	24	24
Long Government	Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	2	3	3	3	4	4	4	4	4	4
Inflation-Protected Bond	Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	3	4	4	4	5	7	7	6	6	6
Emerging Markets Bond	Vanguard Emerging Markets Government Bond Index Fund Institutional Shares	VGIVX	2	2	2	2	2	2	2	2	2	2
Cash	JPMorgan U.S. Government Money Market Fund Capital Shares	OGVXX	1	1	1	1	1	1	1	30	30	30
		Equity	80	70	60	50	40	30	20	10	10	10
		Fixed Income	19	29	39	49	59	69	79	60	60	60
		Cash	1	1	1	1	1	1	1	30	30	30
		Total	100	100	100	100	100	100	100	100	100	100

Columns highlighted in blue were allocations as of 6/30/2020. Portfolio changes that occurred in July 2020 are highlighted in green. Portfolios not highlighted had no allocation changes.

New DreamAhead Year of Enrollment 2038 Portfolios

Asset Category	Fund	Ticker	Conservative Year of Enrollment 2038 Portfolio	Moderate Year of Enrollment 2038 Portfolio	Growth Year of Enrollment 2038 Portfolio
U.S. Large Cap Blend	Fidelity® Total Market Index Fund	FSKAX	15	24	25
U.S. Large Cap Blend	Schwab Total Stock Market Index Fund®	SWTSX	14	23	24
Foreign Large Blend	Fidelity® International Index Fund	FSPSX	19	33	35
Diversified Emerging Mkts	Fidelity® Emerging Markets Index Fund	FPADX	7	10	11
Intermediate-Term Bond	Fidelity® U.S. Bond Index Fund	FXNAX	17	3	1
Intermediate-Term Bond	Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	18	2	1
Long Government	Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	3	1	1
Inflation-Protected Bond	Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	4	2	0
Emerging Markets Bond	Vanguard Emerging Markets Government Bond Index Fund Institutional Shares	VGIVX	2	1	1
Cash	JPMorgan U.S. Government Money Market Fund Capital Shares	OGVXX	1	1	1
		Equity	55	90	95
		Fixed Income	44	9	4
		Cash	1	1	1
		Total	100	100	100

New DreamAhead Year of Enrollment 2038 Portfolios were created on June 30, 2020.

New DreamAhead College Enrolled Portfolios

On June 30, 2020:

- Three new College Year of Enrolled Portfolios were created:
  - College Enrolled Conservative Portfolio
  - College Enrolled Moderate Portfolio
  - College Enrolled Growth Portfolio

- 2018 and 2020 Year of Enrollment portfolio participants were rolled into the appropriate ‘College’ portfolio while retaining performance history.

- The new portfolios become the terminal portfolio for each risk option and remain at the same ending allocation as the current end of each of the three glide paths (e.g. 50% fixed income/50% cash for the conservative option).

- ‘College Enrolled’ portfolios remain open to new investments and exchanges in or out.

Important Disclosures

©2020 Pershing LLC. Pershing LLC, member FINRA, NYSE, SIPC, is a subsidiary of The Bank of New York Mellon Corporation (BNY Mellon).

Pershing does not provide investment advice. Investment advisory services are provided by Lockwood Advisors, Inc. (Lockwood), an investment adviser registered in the United States under the Investment Advisers Act of 1940. FOR WASHINGTON STUDENT ACHIEVEMENT COUNCIL USE ONLY. Not for distribution to the public. Trademark(s) belong to their respective owners.

This document contains proprietary information of Lockwood and is provided to you on a strictly confidential basis. This document and the information contained herein should not be reproduced, communicated, or shared with any other party, either in whole or in part, without the express written consent of Lockwood. Neither the information nor any opinions expressed herein should be construed as a solicitation or a recommendation by Lockwood or its affiliates to buy, hold or sell any securities or investments.

The statements contained herein are based upon the opinions of Lockwood and the data available at the time of publication and are subject to change at any time without notice.

The statistical data contained herein has been obtained from third-party sources (see below) believed to be reliable and accurate. While Lockwood believes the information to be accurate and reliable, no representations, guarantee or warranty, express or implied, can be made as to its completeness, accuracy, or reliability.

This communication does not constitute investment advice, is for informational purposes only and is not intended to meet the objectives or suitability requirements of any specific individual or account. An investor should assess his or her own investment needs based on his or her own financial circumstances and investment objectives.

Lockwood in its capacity as an investment adviser and money manager may be engaged in the purchase and sale of securities discussed in this article in one or more of its discretionary portfolios. Lockwood personnel may also from time-to-time buy and sell these same securities for their personal accounts.

Certain views expressed represent the opinion of Lockwood, which are subject to change and are not intended as investment recommendations, a forecast or guarantee of future results. Such information is derived from proprietary and non-proprietary sources which have not been independently verified for accuracy or completeness. Statements of future expectations, estimates, projections, and other forward-looking statements are based on available information and management's view as of the time of these statements. Accordingly, such statements are inherently speculative as they are based on assumptions which may involve known and unknown risks and uncertainties. Actual results, performance or events may differ materially from those expressed or implied in such statements.
Any factors discussed, including past performance of various investment strategies, sectors, vehicles and indices, are not indicative of future results.

Past performance is not a guarantee of future results. Current performance may be lower or higher than the performance data quoted. The investment return and principal value of an investment will fluctuate, so that an investor's assets, when sold, may be worth more or less than their original cost.

The performance data provided is calculated using a time and asset-weighted Modified Dietz methodology. The Gross of Fees Return shown reflects the deduction of fees and expenses associated with the underlying mutual funds held in the portfolio (the "Underlying Fund Fee"). The Net of Fees Return shown reflects the deduction of the Underlying Fund Fee, Service Fee, and State Administrative Fee (together, the "Total Annual Asset-Based Fee"). The returns shown do not reflect account maintenance fees or other account level service-based fees (e.g., returned check fees, statement delivery fees, etc.).

There is no guarantee that investment objectives will be attained. Results may vary. There is no guarantee that risk can be managed successfully.

Diversification and strategic asset allocation do not guarantee a profit or protect against a loss in declining markets. **All investments are subject to risk, including the loss of principal.**

It is important to remember that there are risks inherent in any investment and that there is no assurance that any money manager, fund, asset class, index, style or strategy will provide positive performance over time.

Investors should carefully consider the investment objectives, risks, charges and expenses of any mutual fund before investing. This and other important information can be found in the fund prospectus and, if available, the summary prospectus, which may be obtained by visiting www.morningstar.com. Please read the prospectus and, if available, the summary prospectus carefully.

Foreign investments are subject to risks not ordinarily associated with domestic investments, such as currency, economic and political risks, and may follow different accounting standards than domestic investments.

Investments in emerging or developing markets involve exposure to economic structures that are generally less diverse and mature, and to political systems that can be expected to have less stability than those of more developed countries. These securities may be less liquid and more volatile than investments in US and longer established non-US markets.

Portfolios that invest in fixed income securities are subject to several general risks, including interest rate risk, credit risk, the risk of issuer default, liquidity risk and market risk. These risks can affect a security's price and yield to varying degrees, depending upon the nature of the instrument, and may occur from fluctuations in interest rates, a change to an issuer’s individual situation or industry, or events in the financial markets. In general, a bond's yield is inversely rated to its price. Bonds can lose their value as interest rates rise and an investor can lose principal. If sold prior to maturity, fixed income securities are subject to gains/losses based on the level of interest rates, market conditions and the credit quality of the issuer.

Liquidity risk increases when particular investments are difficult to purchase or sell. A lack of liquidity also may cause the value of investments to decline. Illiquid investments may be harder to value, especially in changing markets. Typically liquid investments may become illiquid, particularly during periods of market turmoil. When illiquid assets must be sold in such market conditions (to meet redemption requests or other cash needs for example), it may be necessary to sell such assets at a loss.

Short-term fixed income securities are susceptible to fluctuations in interest rates. If interest rates rise, bond prices will decline, despite the lack of change in both coupon and maturity. Price volatility typically increases with the length of the maturity and decreases as the size of the coupon decreases.

Investments in intermediate- and long-term fixed income securities involve interest rate risk and inflation risk, which could reduce the value or real return of an investment should interest rates rise.

Inflation is the rate at which the general level of prices for goods and services is rising and, consequently, the purchasing power of currency is falling.

Mutual funds included in portfolios charge additional fees and expenses outside of the Total Annual Asset-Based Fee for this program. Mutual funds may additionally charge a redemption fee if shares are redeemed by within a specified period of time. The amount of the redemption fee, as well as the minimum holding period, is disclosed in each of the respective fund prospectuses. For complete details, please refer to the applicable fund prospectus.

Mutual funds may use derivatives that are often more volatile than other investments and may magnify the fund’s gains or losses. An investment that uses derivatives could be negatively affected if the change in the market value of its securities fails to correlate adequately with the values of the derivatives it purchased or sold.

Securities are not bank deposits. They are not insured or guaranteed by Lockwood, its affiliates or its parent companies.

Securities are not insured or guaranteed by the Federal Deposit Insurance Corporation (FDIC), the Federal Reserve, the U.S Securities and Exchange Commission (SEC) or any other government agency.

All performance is expressed in US dollars. Sources: Bloomberg Barclay; Federal Reserve Board; MSCI; Standard & Poor's; US Treasury Department; Bloomberg; and US Bureau of Labor Statistics.

The information on indices is presented for illustrative purposes only and is not intended to imply the potential performance of any fund or investment. Index performance assumes the reinvestment of all distributions, but does not assume any transaction costs, taxes, management fees or other expenses, which would reduce the performance shown. Indices are unmanaged and are not available for direct investment.

Bloomberg Barclays Global Aggregate ex-U.S. Bond Index is designed to be a broad-based measure of the global investment-grade, fixed rate, fixed income corporate markets outside the United States.

Bloomberg Barclays Global Aggregate Negative Yielding Debt TR Index Value Unhedged USD represents the market value in US dollars ($) of unhedged global negative-yielding debt securities.

Bloomberg Barclays U.S. Aggregate Bond Index represents securities that are SEC registered, taxable and 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. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis. Securities must have at least one year to final maturity regardless of call features and must have at least $250 million par amount outstanding.

Bloomberg Barclays U.S. Treasury Bill 6–9 Month Index represents United States-issued government debt with a bond maturity between six months and nine months.

Bloomberg Commodity Index is designed to be a highly liquid and diversified benchmark for the commodity futures market. The index is composed of exchange-traded futures and represents 20 physical commodities, which are weighted to account for economic significance and market liquidity (subject to weighting restrictions).

Bloomberg Barclays Long U.S. Treasury Index includes all publicly issued, U.S. Treasury securities that have a remaining maturity of 10 or more years, are rated investment grade and have $250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non-convertible.

Bloomberg Barclays U.S. Treasury Inflation Protected Securities (TIPS) Index represents inflation-protected securities issued by the U.S. Treasury. Securities must be investment-grade, publicly issued, dollar-denominated, have at least one year remaining to maturity and have at least $250 million par amount outstanding.

Bloomberg Barclays USD Emerging Markets Government RIC Capped Index is designed to measure the investment return of dollar-denominated bonds that have maturities longer than one year and were issued by emerging market governments and government-related issuers. The index is capped, which means that its exposure to any particular bond is limited to a maximum of 20% and its aggregate exposure to issuers that individually constitute 5% or more is limited to 48%. If the index, as constituted based on market weights, exceeds the 20% or 48% limits, the excess is reallocated to bonds of other issuers represented in the index.

Bloomberg Barclays U.S. Treasury Bill 1–3 Month Index is the one-to-three month component of the U.S. Treasury Bill Index. The Bloomberg Barclays Treasury Bill Index includes U.S. Treasury bills with a remaining maturity from one up to (but not including) 12 months. It excludes zero coupon strips.

Bloomberg Barclays U.S. Aggregate Float Adjusted Index provides broad exposure to the U.S. investment-grade bond market. The float-adjusted index excludes U.S. Treasuries, agencies, and mortgage-backed securities (MBS) held in Federal Reserve accounts, thereby reducing the market value weight of these securities.

Dow Jones U.S. Total Stock Market Index is an unmanaged, float-adjusted market-capitalization-weighted index providing broad-based coverage of the U.S. equity market. The index is considered a total market index, representing the top 95% of the U.S. stock market based on market capitalization. To be included in the index, a security generally must be all of the following: an equity security (common stock, REIT or limited partnership), a security that has its primary market listing in the U.S. and be issued by U.S. headquartered company.

MSCI ACWI (All Country World Index) Index ex-USA (net of taxes) is a subset of the MSCI ACWI Index, a free-float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. This version of the index excludes the United States. The index is net because dividends are reinvested after deducting a withholding tax from dividend distributions. Since taxes are withheld from the MSCI ACWI Index ex-USA (net of taxes), the performance of the MSCI ACWI Index ex-USA (net of taxes) will generally be lower than that of the MSCI ACWI Index ex-USA (gross of taxes).

MSCI ACWI (All Country World Index) Index (net of taxes) is a free-float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. As of May 30, 2019, the MSCI ACWI consisted of 47 country indices comprising 23 developed and 24 emerging market country indices. The developed market country indices included are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States. The emerging market country indices included are Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates. The index is net because dividends are reinvested after deducting a withholding tax from dividend distributions. Since taxes are withheld from the MSCI ACWI Index (net of taxes), the performance of the MSCI ACWI Index (net of taxes) will generally be lower than that of the MSCI ACWI Index (gross of taxes).

MSCI EAFE (Europe, Australasia and the Far East) Index (net of taxes) is a free-float-adjusted market-capitalization index that is designed to measure developed market equity performance, excluding the United States and Canada. As of May 30, 2019, the MSCI EAFE Index consisted of the following 21 developed market country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom. The index is net because dividends are reinvested after deducting a withholding tax from dividend distributions. Since taxes are withheld from the MSCI EAFE Index (net of taxes), the performance of the MSCI EAFE Index (net of taxes) will generally be lower than that of the MSCI EAFE Index (gross of taxes).

MSCI Emerging Markets Index (net of taxes) is a free-float adjusted, market-capitalization index that is designed to measure equity market performance of emerging markets. As of May 30, 2019, the MSCI Emerging Markets Index consisted of the following 26 emerging market country indices: Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, Saudi Arabia, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates. The index is net because dividends are reinvested after deducting a withholding tax from dividend distributions. Since taxes are withheld from the MSCI Emerging Markets Index (net of taxes), the performance of the MSCI Emerging Markets Index (net of taxes) will generally be lower than that of the MSCI Emerging Markets Index (gross of taxes).

MSCI USA Investable Market Index (IMI) is designed to measure the performance of the large, mid and small cap segments of the US market. With 2,428 constituents, the index covers approximately 99% of the free float-adjusted market capitalization in the U.S.

MSCI USA Small Cap Index is an unmanaged index designed to measure the performance of the small-cap segment of the US equity market. The index represents approximately 14% of the free float-adjusted market capitalization in the U.S.

Purchasing Managers' Index™ (PMI™) data are compiled by IHS Markit for more than 40 economies worldwide. The monthly data are derived from surveys of senior executives at private sector companies and are available only via subscription. The PMI dataset features a headline number, which indicates the overall health of an economy, and sub-indices, which provide insights into other key economic drivers such as GDP, inflation, exports, capacity utilization, employment and inventories. The PMI data are used by financial and corporate professionals to better understand where economies and markets are headed, and to uncover opportunities.

S&P GSCI Gold Index, a sub-index of the S&P GSCI Index, provides investors with a reliable and publicly available benchmark for investment performance in the gold commodity markets. The index is designed to be tradable, readily

accessible to market participants and cost efficient to implement. The S&P GSCI Index is widely recognized as the leading measure of general commodity price movements and inflation in the world economy.

S&P GSCI Crude Oil Index, a sub-index of the S&P GSCI, provides investors with a reliable and publicly available benchmark for investment performance in the crude oil commodity markets. The index is designed to be tradable, readily accessible to market participants and cost efficient to implement. The S&P GSCI is widely recognized as the leading measure of general commodity price movements and inflation in the world economy. Spot price in the S&P GSCI means the price of the S&P GSCI futures holdings.

S&P 500 Index, an unmanaged index, includes 500 of the largest stocks (in terms of stock market value) in the United States; prior to March 1957, it consisted of 90 of the largest stocks. Although the S&P 500 focuses on the large-cap segment of the market, with approximately 80% coverage of U.S. equities, it is also used as a proxy for the total U.S. equity market.

Reproduction of S&P index data shown in this document in any form is prohibited except with the prior written permission of S&P. S&P does not guarantee the accuracy, adequacy, completeness or availability of any information and is not responsible for any errors or omissions, regardless of the cause or for the results obtained from the use of such information. S&P DISCLAIMS ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE. In no event shall S&P be liable for any direct, indirect, special or consequential damages, costs, expenses, legal fees, or losses (including lost income or lost profit and opportunity costs) in connection with subscriber's or others' use of S&P index data shown in this document. ©2019, S&P Dow Jones Indices LLC.

US Dollar Index: The US Dollar Index (USDX, DXY, DX) is an index (or measure) of the value of the United States dollar relative to a basket of foreign currencies, often referred to as a basket of U.S. trade partners' currencies.

Blended Benchmark Definitions

As of June 30, 2020

Growth Portfolio

50% Dow Jones US Total Stock Market TR USD, 37% MSCI EAFE NR USD, 12% MSCI EM NR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Moderate Growth Portfolio

42% Dow Jones US Total Stock Market TR USD, 29% MSCI EAFE NR USD, 9% MSCI EM NR USD, 12% Bloomberg Barclays US Aggregate Bond TR USD, 2% Bloomberg Barclays Long Term US Treasury TR USD, 3% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Conservative Growth Portfolio

32% Dow Jones US Total Stock Market TR USD, 21% MSCI EAFE NR USD, 7% MSCI EM NR USD, 30% Bloomberg Barclays US Aggregate Bond TR USD, 3% Bloomberg Barclays Long Term US Treasury TR USD, 4% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Balanced Portfolio

26% Dow Jones US Total Stock Market TR USD, 18% MSCI EAFE NR USD, 6% MSCI EM NR USD, 40% Bloomberg Barclays US Aggregate Bond TR USD, 3% Bloomberg Barclays Long Term US Treasury TR USD, 4% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Income & Growth Portfolio

20% Dow Jones US Total Stock Market TR USD + 15% MSCI EAFE NR USD + 5% MSCI EM NR USD + 48% Bloomberg Barclays US Aggregate Bond TR USD + 4% Bloomberg Barclays Long Term US Treasury TR USD + 5% Bloomberg Barclays US Treasury US TIPS TR USD + 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD + 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Income Portfolio

60% Bloomberg Barclays US Aggregate Bond TR USD + 5% Bloomberg Barclays Long Term US Treasury TR USD + 8% Bloomberg Barclays US Treasury US TIPS TR USD + 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD + 25% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Cash Preservation Portfolio

100% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Conservative Year of Enrollment 2036 Portfolio

29% Dow Jones US Total Stock Market TR USD, 19% MSCI EAFE NR USD, 7% MSCI EM NR USD, 35% Bloomberg Barclays US Aggregate Bond TR USD, 3% Bloomberg Barclays Long Term US Treasury TR USD, 4% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Conservative Year of Enrollment 2034 Portfolio

26% Dow Jones US Total Stock Market TR USD, 18% MSCI EAFE NR USD, 6% MSCI EM NR USD, 40% Bloomberg Barclays US Aggregate Bond TR USD, 3% Bloomberg Barclays Long Term US Treasury TR USD, 4% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Conservative Year of Enrollment 2032 Portfolio

20% Dow Jones US Total Stock Market TR USD, 15% MSCI EAFE NR USD, 5% MSCI EM NR USD, 48% Bloomberg Barclays US Aggregate Bond TR USD, 4% Bloomberg Barclays Long Term US Treasury TR USD, 5% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Conservative Year of Enrollment 2030 Portfolio

15% Dow Jones US Total Stock Market TR USD, 11% MSCI EAFE NR USD, 4% MSCI EM NR USD, 56% Bloomberg Barclays US Aggregate Bond TR USD, 4% Bloomberg Barclays Long Term US Treasury TR USD, 7% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Conservative Year of Enrollment 2028 Portfolio

10% Dow Jones US Total Stock Market TR USD, 7% MSCI EAFE NR USD, 3% MSCI EM NR USD, 57% Bloomberg Barclays US Aggregate Bond TR USD, 4% Bloomberg Barclays Long Term US Treasury TR USD, 7% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 10% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Conservative Year of Enrollment 2026 Portfolio

8% Dow Jones US Total Stock Market TR USD, 5% MSCI EAFE NR USD, 2% MSCI EM NR USD, 53% Bloomberg Barclays US Aggregate Bond TR USD, 4% Bloomberg Barclays Long Term US Treasury TR USD, 6% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 20% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Conservative Year of Enrollment 2024 Portfolio

5% Dow Jones US Total Stock Market TR USD, 4% MSCI EAFE NR USD, 1% MSCI EM NR USD, 53% Bloomberg Barclays US Aggregate Bond TR USD, 4% Bloomberg Barclays Long Term US Treasury TR USD, 6% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 25% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Conservative Year of Enrollment 2022 Portfolio

3% Dow Jones US Total Stock Market TR USD, 2% MSCI EAFE NR USD, 36% Bloomberg Barclays US Aggregate Bond TR USD, 3% Bloomberg Barclays Long Term US Treasury TR USD, 4% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 50% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Conservative Year of Enrollment 2020 Portfolio

41% Bloomberg Barclays US Aggregate Bond TR USD, 3% Bloomberg Barclays Long Term US Treasury TR USD, 4% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 50% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Conservative Year of Enrollment 2018 Portfolio

41% Bloomberg Barclays US Aggregate Bond TR USD, 3% Bloomberg Barclays Long Term US Treasury TR USD, 4% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 50% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Moderate Year of Enrollment 2036 Portfolio

47% Dow Jones US Total Stock Market TR USD, 33% MSCI EAFE NR USD, 10% MSCI EM NR USD, 5% Bloomberg Barclays US Aggregate Bond TR USD, 1% Bloomberg Barclays Long Term US Treasury TR USD, 2% Bloomberg Barclays US Treasury US TIPS TR USD, 1% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Moderate Year of Enrollment 2034 Portfolio

47% Dow Jones US Total Stock Market TR USD, 33% MSCI EAFE NR USD, 10% MSCI EM NR USD, 5% Bloomberg Barclays US Aggregate Bond TR USD, 1% Bloomberg Barclays Long Term US Treasury TR USD, 2% Bloomberg Barclays US Treasury US TIPS TR USD, 1% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Moderate Year of Enrollment 2032 Portfolio

42% Dow Jones US Total Stock Market TR USD, 29% MSCI EAFE NR USD, 9% MSCI EM NR USD, 12% Bloomberg Barclays US Aggregate Bond TR USD, 2% Bloomberg Barclays Long Term US Treasury TR USD, 3% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Moderate Year of Enrollment 2030 Portfolio

36% Dow Jones US Total Stock Market TR USD, 26% MSCI EAFE NR USD, 8% MSCI EM NR USD, 20% Bloomberg Barclays US Aggregate Bond TR USD, 3% Bloomberg Barclays Long Term US Treasury TR USD, 4% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Moderate Year of Enrollment 2028 Portfolio

32% Dow Jones US Total Stock Market TR USD, 21% MSCI EAFE NR USD, 7% MSCI EM NR USD, 30% Bloomberg Barclays US Aggregate Bond TR USD, 3% Bloomberg Barclays Long Term US Treasury TR USD, 4% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Moderate Year of Enrollment 2026 Portfolio

26% Dow Jones US Total Stock Market TR USD, 18% MSCI EAFE NR USD, 6% MSCI EM NR USD, 40% Bloomberg Barclays US Aggregate Bond TR USD, 3% Bloomberg Barclays Long Term US Treasury TR USD, 4% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Moderate Year of Enrollment 2024 Portfolio

18% Dow Jones US Total Stock Market TR USD, 12% MSCI EAFE NR USD, 5% MSCI EM NR USD, 49% Bloomberg Barclays US Aggregate Bond TR USD, 4% Bloomberg Barclays Long Term US Treasury TR USD, 5% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 5% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Moderate Year of Enrollment 2022 Portfolio

10% Dow Jones US Total Stock Market TR USD, 7% MSCI EAFE NR USD, 3% MSCI EM NR USD, 55% Bloomberg Barclays US Aggregate Bond TR USD, 5% Bloomberg Barclays Long Term US Treasury TR USD, 8% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 10% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Moderate Year of Enrollment 2020 Portfolio

5% Dow Jones US Total Stock Market TR USD, 4% MSCI EAFE NR USD, 1% MSCI EM NR USD, 55% Bloomberg Barclays US Aggregate Bond TR USD, 5% Bloomberg Barclays Long Term US Treasury TR USD, 8% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 20% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Moderate Year of Enrollment 2018 Portfolio

55% Bloomberg Barclays US Aggregate Bond TR USD, 5% Bloomberg Barclays Long Term US Treasury TR USD, 8% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 30% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Growth Year of Enrollment 2036 Portfolio

49% Dow Jones US Total Stock Market TR USD, 35% MSCI EAFE NR USD, 11% MSCI EM NR USD, 2% Bloomberg Barclays US Aggregate Bond TR USD, 1% Bloomberg Barclays Long Term US Treasury TR USD, 1% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Growth Year of Enrollment 2034 Portfolio

49% Dow Jones US Total Stock Market TR USD, 35% MSCI EAFE NR USD, 11% MSCI EM NR USD, 2% Bloomberg Barclays US Aggregate Bond TR USD, 1% Bloomberg Barclays Long Term US Treasury TR USD, 1% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Growth Year of Enrollment 2032 Portfolio

47% Dow Jones US Total Stock Market TR USD, 33% MSCI EAFE NR USD, 10% MSCI EM NR USD, 5% Bloomberg Barclays US Aggregate Bond TR USD, 1% Bloomberg Barclays Long Term US Treasury TR USD, 2% Bloomberg Barclays US Treasury US TIPS TR USD, 1% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Growth Year of Enrollment 2030 Portfolio

47% Dow Jones US Total Stock Market TR USD, 33% MSCI EAFE NR USD, 10% MSCI EM NR USD, 5% Bloomberg Barclays US Aggregate Bond TR USD, 1% Bloomberg Barclays Long Term US Treasury TR USD, 2% Bloomberg

Barclays US Treasury US TIPS TR USD, 1% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Growth Year of Enrollment 2028 Portfolio

44% Dow Jones US Total Stock Market TR USD, 31% MSCI EAFE NR USD, 10% MSCI EM NR USD, 7% Bloomberg Barclays US Aggregate Bond TR USD, 2% Bloomberg Barclays Long Term US Treasury TR USD, 3% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Growth Year of Enrollment 2026 Portfolio

42% Dow Jones US Total Stock Market TR USD, 29% MSCI EAFE NR USD, 9% MSCI EM NR USD, 12% Bloomberg Barclays US Aggregate Bond TR USD, 2% Bloomberg Barclays Long Term US Treasury TR USD, 3% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Growth Year of Enrollment 2024 Portfolio

31% Dow Jones US Total Stock Market TR USD, 22% MSCI EAFE NR USD, 7% MSCI EM NR USD, 30% Bloomberg Barclays US Aggregate Bond TR USD, 3% Bloomberg Barclays Long Term US Treasury TR USD, 4% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Growth Year of Enrollment 2022 Portfolio

21% Dow Jones US Total Stock Market TR USD, 14% MSCI EAFE NR USD, 5% MSCI EM NR USD, 48% Bloomberg Barclays US Aggregate Bond TR USD, 4% Bloomberg Barclays Long Term US Treasury TR USD, 5% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Growth Year of Enrollment 2020 Portfolio

10% Dow Jones US Total Stock Market TR USD, 7% MSCI EAFE NR USD, 3% MSCI EM NR USD, 66% Bloomberg Barclays US Aggregate Bond TR USD, 4% Bloomberg Barclays Long Term US Treasury TR USD, 7% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Growth Year of Enrollment 2018 Portfolio

5% Dow Jones US Total Stock Market TR USD, 4% MSCI EAFE NR USD, 1% MSCI EM NR USD, 48% Bloomberg Barclays US Aggregate Bond TR USD, 4% Bloomberg Barclays Long Term US Treasury TR USD, 6% Bloomberg Barclays US Treasury US TIPS TR USD, 2% Bloomberg Barclays USD Emerging Markets Government RIC Capped TR USD, 30% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Certain information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information. ©2020 Morningstar, Inc. All Rights Reserved.

Tax considerations, while important, are just one factor to consider before making any investment decision. **Lockwood is not a tax advisor and this communication does not constitute tax advice.** Advisors should consult with a qualified tax professional for specific tax advice.

For more information about Lockwood, as well as its products, fees and services, please refer to Lockwood's Form ADV Part 2, Firm Brochure, which may be obtained by writing to: Lockwood, Attn: Legal Department (AIM #19K-0203), 760 Moore Road, King of Prussia, PA 19406, or by calling (800) 200-3033, option 3.