WA529 Committee Meeting
Thursday, May 6, 2021

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Approval of the November 12, 2020 Minutes (Slide 2)	1 - 11.12.20 WA529 Committee Meeting Minutes
Program Updates (Slides 3-30)	2 - GET Q1_21 Committee Report
	3 - GET Q1_21 Investment Report (WSIB)
	4 - DreamAhead Q1_21 Committee Report (Sumday)
	5 - DreamAhead Q1_21 Investment Report (Lockwood)
Legislative Update – Senate Bill 5430 (Slides 31-34)	6 – Senate Bill 5430 Overview (2021)
	7 – Senate Bill 5430 (Enrolled Bill Text)
	8 – SB 5430-Final Fiscal Note
GET Actuarial Update (Slides 35-43)	See Main Slide Deck (5-6-2021 Committee Meeting Deck)
Panel Discussion – Increasing Access to College Savings (Slides 44-65)	See Main Slide Deck (5-6-2021 Committee Meeting Deck)

WA529 Committee Meeting Minutes
November 12, 2020
Zoom Virtual Meeting

WSAC/WA529 Staff in Attendance:
Luke Minor, Christina Crawford, Daniel Payne, Rodger O'Connor, Melissa Huster, Jackie Ferrado, Jennifer Dyck, Liz Rosback, Danica Mitchell, Marc Webster

Presenters in Attendance:
Sally Riefenstahl, Sumday/BNY Mellon
Michael Harbour & Sarah Baker, Office of the State Actuary

Guests in Attendance:
Chris Phillips and Chris Hanak, Washington State Investment Board
Rick Brady, Attorney General Office
Graham Dyer, Office of the State Actuary
Megan Mulvihill, Washington State Legislature
Aileen Liu, Washington State Investment Board
Nick Procyk and Matt Forester, Lockwood Investments/BNY Mellon
Patrick Maxwell, TVW

WELCOME
Mike Meotti, Chair of the WA529 Committee, called the meeting to order at 2:00 p.m. The other WA529 Committee members in attendance were Brenda Snyder, proxy for Treasurer Duane Davidson, Director of the Office of Financial Management (OFM), David Schumacher, citizen member, Linden Rhoads, and citizen member, Touk Sinantha.

APPROVAL OF THE SEPTEMBER 09, 2020 MINUTES
Snyder moved to approve the minutes of the September 9, 2020 WA529 Committee meeting. Seconded by Sinantha. Five ayes by Meotti, Snyder, Rhoads, Schumacher and Sinantha. Motion carries and minutes approved as presented.

APPROVAL OF THE 2021 WA529 COMMITTEE MEETING CALENDAR
The 2021 WA529 Committee Meeting Calendar calls for regular meetings of the Committee, either virtually, or in Olympia (to be determined due to COVID-19) on January 20, May 6, September 15, and November 17. Motion to approve the Committee Meeting Calendar by Touk Sinantha. Second by Snyder. Five ayes by Meotti, Snyder, Rhoads, Schumacher and Sinantha. Motion carries and calendar approved as presented.

PROGRAM UPDATES
Luke Minor, WA529 Director, and Sally Riefenstahl, Sumday Account Executive, provided GET and DreamAhead program updates.

Minor gave an overview of the new WA529 website, which encompasses information for both GET and DreamAhead and allows customers to compare both plans side by side, enroll and access online accounts. Minor recapped the paid advertising campaign, which included ramping up late last week after the election with digital, social, radio and television ads and a newborn enrollment onesie promotion. GET currently has 418 new accounts since open enrollment began on November 1. Of these accounts, 76% are Lump Sum and 26% are Custom Monthly. New enrollment numbers are 8-9% ahead of last year, both in enrollments and unit sales. Minor reviewed further details on GET distribution activity, account holder and beneficiary demographics as well as Prepaid 529 Plan Comparisons. Minor noted that the Florida Prepaid Plan, in particular, was unique and had done very well over the years. He offered to the Committee that some of their practices and features could be reviewed if there was interest.

- Rhoads asked why larger plans such as New York & Massachusetts weren't reflected on the charts. Minor replied that the current comparisons being reviewed were based on Prepaid plans only.
- Sinantha stated that she would be interested in learning more about the Florida Prepaid plan and what makes them unique. Minor replied that one of the things that contributes to their story is a lot of integration with the university system and others in state government promoting the options. As well as a bold statement in their materials stating that customers can't lose money, guaranteeing a principal protection. Minor suggested inviting a representative from the Florida plan to a future meeting or to prepare a briefing document on the subject to facilitate future discussions.

Minor gave a third quarter GET investment update noting that as of September 30, 2020, the GET fund was at $1.5 billion with asset allocations remaining within the new target ranges put into effect last December. There was a 4.12% return for the quarter and 11% for the one-year period.

- Sinantha asked why, with the long-term investment return assumption for the GET fund recently changing to 4.75% , is she seeing the 10 year total return at 7% and the CPI inflation index at 5%. Chris Hanak with the Washington State Investment Board (WSIB), replied that in regards to CPI, it is CPI plus 3.25%. Regarding investment assumptions, a long term, industry wide observation is that over the past many years the interest rate environment has gone downward, with expected returns decreasing as well. The ten-year horizon is inside of the time frame for the great financial crisis, which saw low rates, but essentially there is a broader trend toward lower investment expectations going forward. This drives the difference of past expectations vs. current. Phillips added that this question is currently being asked by other entities as well.

Minor noted that DreamAhead had been featured in Morningstar's annual 529 plan rankings and received a positive plan rating. DreamAhead received a bronze model, which is considered a "best in class" plan, with two things standing out to them; investment line up, including the age-based options that are offered, and the fee structure.

Riefenstahl provided a DreamAhead update. Noting that at the September meeting, the Committee approved a fund change that was recommended by Lockwood, DreamAhead has begun to notify account owners of the change from the JP Morgan Chase Money Market fund to the Vanguard Federal Money Market Fund and that it will drop the fund expense ratio from .18% to .11%. Riefenstahl provided a third quarter DreamAhead investment update, noting that contributions were down by $4 Million, likely due to COVID-19, distributions are less than the third quarter fiscal quarter 2019 and slowing due to older accounts leveling out. All Static and Year of Enrollment portfolios have met their respective investment performance benchmarks. No remedial action is necessary and there are not any funds on the watch list at this time. All funds have performed as expected.

WA529 OUTLOOK-2020 AND BEYOND

Meotti continued the strategic planning conversation among committee members about the future of WA529. Meotti suggested that the conversations will likely last longer than just during the November and January Committee meetings and stated that the Committee may want to incorporate the help of a facilitator for future discussions. Meotti stated that while the purpose of the Committee may be to create a state sponsored program that has a federal tax benefit; and while that can be measured by assets under management or how many accounts reside in the program; what is the public policy purpose and how does that coincide with increasing the attainment level of education for Washingtonians? Meotti shared a college affordability model as it relates to the crossover of shared work with the Washington Student Achievement Council and suggested that the WSAC Council would be a great partner to work with in future meetings.

- Rhoads stated that whether-or-not a family saves has an impact on their lives, even very modest savings can greatly increase the likelihood of enrollment in higher education. Universities may have a vested interest in collaborating with programs, such as ours, to increase enrollment numbers. Rhoads suggested soliciting visits and presentations of programs in other states that may have data on the impact they are having on different demographic groups. As well as, collaboration with universities to increase attainment of education for underserved groups. Meotti also highlighted that some of this work has already begun between Tacoma Housing Authority and the GET Program. Minor added that another party that might be valuable to hear from is researcher Margaret Clancy, who has been working in the child savings/development account s field for many years.
- Schumacher added that he believes working towards solutions that don't presume a lot of state investment, but instead, find creative ways to encourage people are ideal.
- Sinantha shared that she believed that the affordability model that Mike shared was a powerful tool and could help pinpoint where the gap is and where more focus could be directed at different income levels of savers.
- Snyder added that from a financial education standpoint, encouraging savers to start small instead of viewing college savings as a lofty goal is key. As well as to advocate for the natural partnerships that the WA529 outreach department has been procuring with various financial education partners.

Meotti concluded that an agenda defining goals would be a great start and a step towards implementation.

2020 GET ACTUARIAL VALUATION REPORT

Michael Harbour, Actuary with the Office of the State Actuary, reported that as of June 30, 2020 the funded status for the GET Program is 131% with a $369 million reserve. Harbour reviewed significant factors impacting this year's GET Actuarial Valuation Report (GAVR), including: investment returns exceeding the expected percent for the plan year, the addition of new units purchased after last year's actuarial valuation and a reduction to the assumed rates of investment return. As of June 30, 2020, the assumed rate of investment return was lowered from 5.25% to 4.75% based on the new asset allocation. Tuition growth assumptions were updated to reflect tuition growth rates for 2020-2021 academic school years that were adopted as part of the state's 2019-2021 biennial operating budget.

Sarah Baker, Actuarial Analyst with the Office of the State Actuary, explained methodology features of the GAVR. The GAVR includes the fairly-new measure used to determine the expense component in the unit price, which reflects the estimated cost to administer currently unredeemed units until all units are redeemed. Additionally, the GAVR, while still based on a "best estimate" value of assets figure now includes a smoothed figure to provide additional information to the Committee about the sensitivity of GET's point-in-time funded status measurement. If future decisions require a measure of the funded status, both methods will be available to use and compare.

Baker noted inherent risks in actuarial measurements. Including caution when reaching conclusions or taking actions based on a single, point-in-time measurement, changes to assumptions that can lead to significant changes in measurements and cautioned that there is a higher likelihood that short-term experience will deviate from assumptions in 2021.

Baker highlighted factors that may influence the 2021 results. A new GET Experience Study will begin in which a deep dive into key assumptions including, tuition growth, investment return and a new entrant profile are reviewed. The results of the experience study, 2021 actuarial valuation, and price-setting analysis for the 2021-22 enrollment period may be influenced by updated capital market assumptions and 2021-23 biennium tuition policy.

Meotti noted that this was a compelling presentation by OSA, that the status of the fund is dependent on two things; investment performance and level of tuition. He compared traditional plans which are affected by market performance vs. prepaid plans which are affected by market performance, as well as tuition. Meotti stated that this review is a good reminder that the GET Program is not only affected by the money that account owners invest, but also by the state budget as it relates to higher education broadly.

Marc Webster, Director of External Affairs for WSAC, gave an explanation of his role with the GET Actuarial Valuation Report, including reviewing the data provided by WSAC to the Actuary's Office. Webster stated that he believes everything in the report to be complete and accurate.

LEGISLATIVE REPORT REVIEW

Minor gave an overview of the two reports that are presented to the Legislature each year; the WA529 Rollover Report and the DreamAhead Fee Report.

Of the rollovers from DreamAhead to out-of-state plans, 84% were for accounts that originally rolled over from GET as part of the incentive program offered by Senate Bill 6087.

Effective December 1, 2020, total annual asset-based fees for the DreamAhead College Investment Plan vary from 0.254% to 0.333%, depending upon the portfolios a participant chooses. Since this report was last updated in December 2019, DreamAhead has been able to lower asset-based fees for participants, primarily due to a change in the underlying money market fund. DreamAhead's fees have been highly rated by both Morningstar and savingforcollege.com.

These reports will be sent to the Legislature in the coming weeks.

PUBLIC COMMENT
No public comment.

ADJOURNMENT
Rhoads motioned to adjourn meeting at 3:34 p.m. The motion was seconded by Sinantha. Five ayes from Meotti, Snyder, Rhoads, Sinantha and Schumacher. Meeting adjourned.

WASHINGTON COLLEGE SAVINGS PLANS

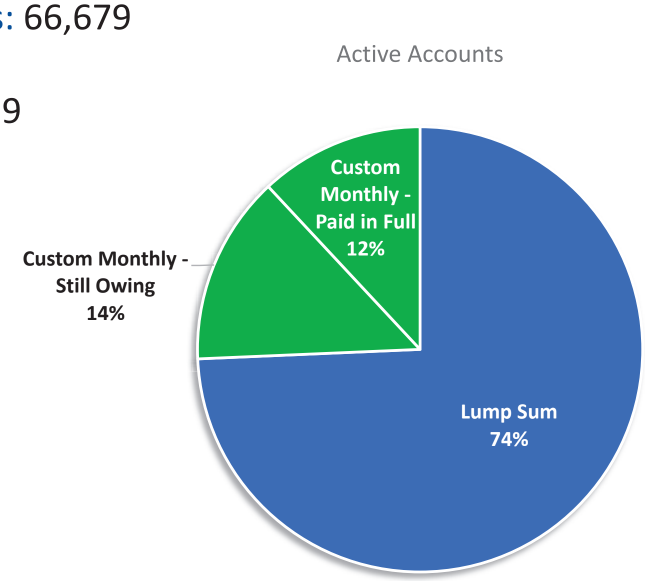
WA529 Committee Meeting

May 6, 2021

Total Accounts by Type

WASHINGTON COLLEGE SAVINGS PLANS

- Number of active accounts: 66,679
  - Lump Sum: 49,860
  - Custom Monthly: 17,229
    - Still Owing: 9,216
    - Paid In Full: 8,013

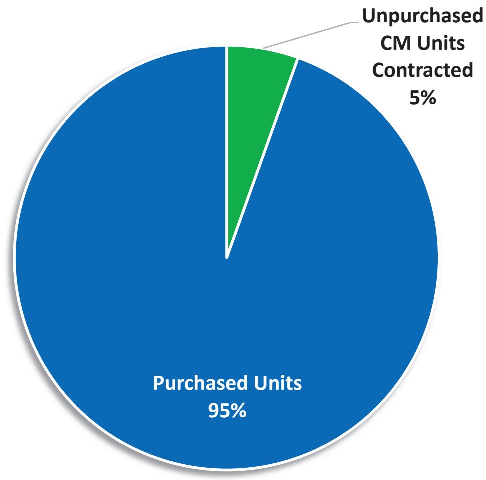


Notes: *Data-as-of 4.19.21*

Units by Account Type (Active Accounts)

WA529
WASHINGTON COLLEGE SAVINGS PLANS

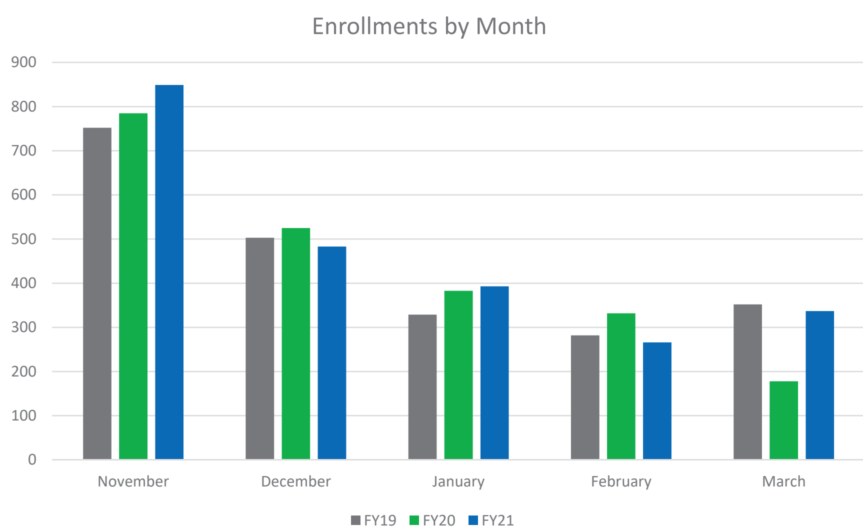
- Total Unredeemed Units (purchased and contracted): **12,121,104**
  - Purchased Units (Custom Monthly and Lump Sum): 11,459,777
  - Total Remaining Unpurchased Custom Monthly Units Contracted: 661,327



Notes: *Data-as-of 4.19.21*

Applications Accepted by Month *(FY19 – FY21)*

WA529
WASHINGTON COLLEGE SAVINGS PLANS

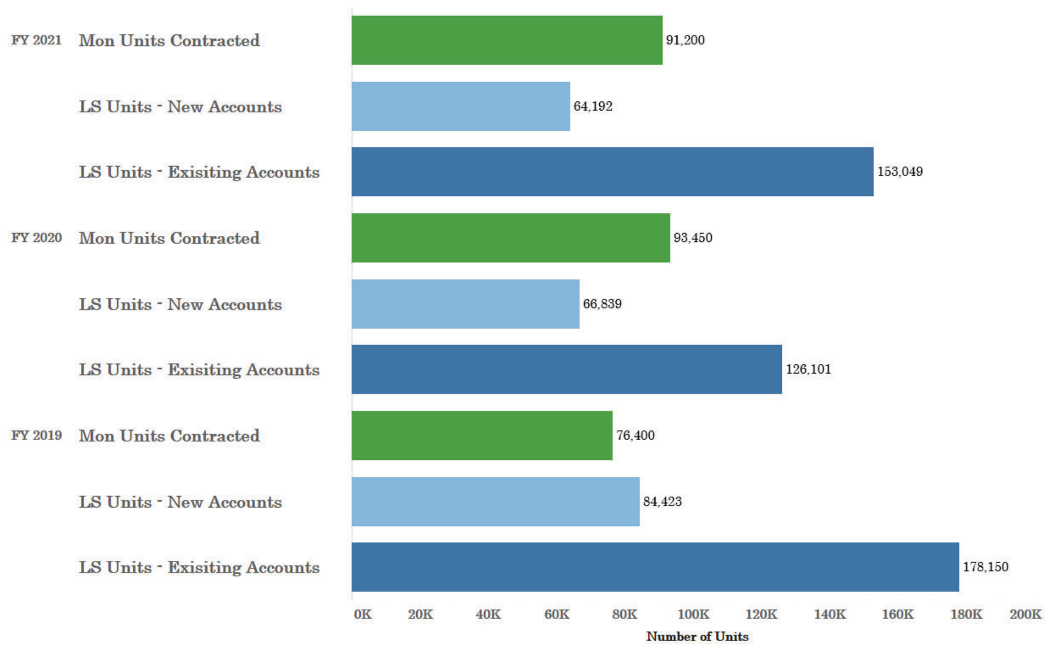


**November also includes any applications received over the summer, after July 1.*

Notes: *Data-as-of 4.19.21*

Units Sold for July – March

WA529
WASHINGTON COLLEGE SAVINGS PLANS



Notes: *Data-as-of 4.19.21*

Lump Sum Units Sold Over Time

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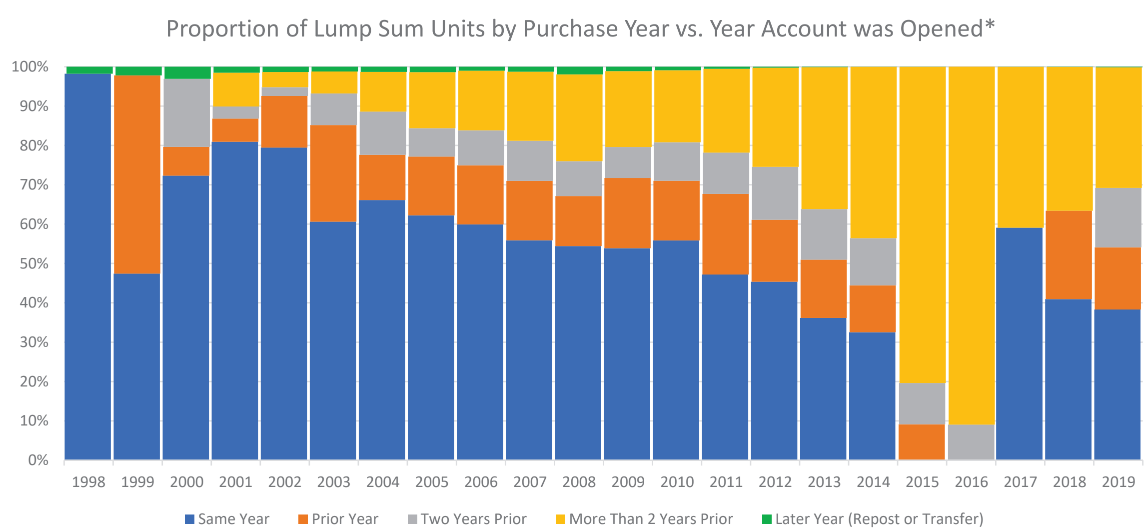
WASHINGTON COLLEGE SAVINGS PLANS



The year in the chart represents the tuition year units were *purchased* in. The units purchased are categorized in groups relating to the tuition year the account was *opened* in.

*Note: No new units were sold in the 2015 and 2016 enrollment years . Unit counts represented for those years reflect the impact of custom monthly conversions, in which each monthly payment is converted to a lump sum purchase at the time the payment was originally made.

Notes: *Data-as-of 3.10.21. Includes all accounts.*

GET Program Updates

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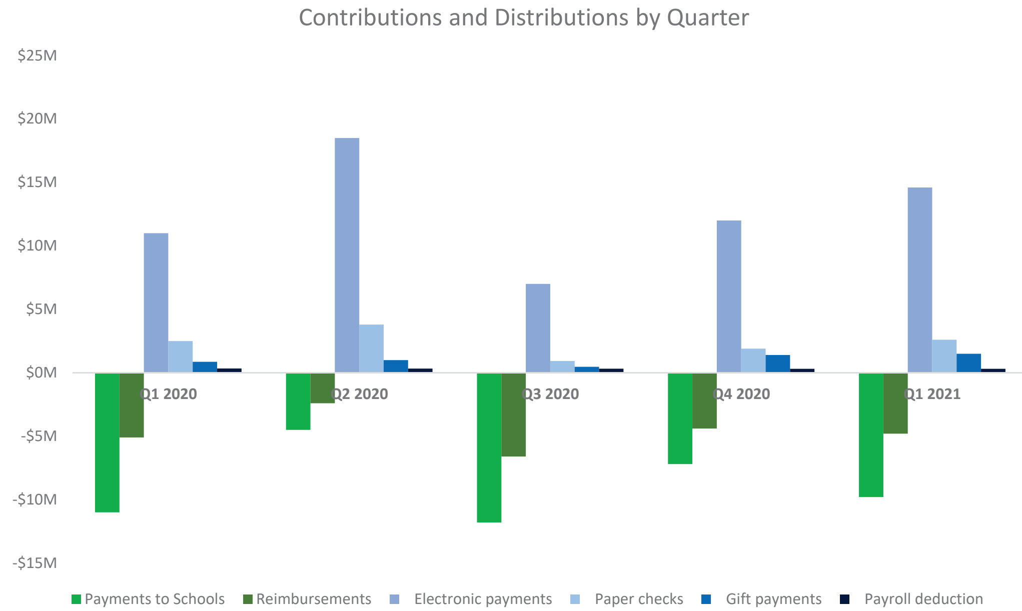
WASHINGTON COLLEGE SAVINGS PLANS

GET Account Contributions



Notes: *Data-as-of 4.19.21 Quarters follow the calendar year.*

Gift Contributions

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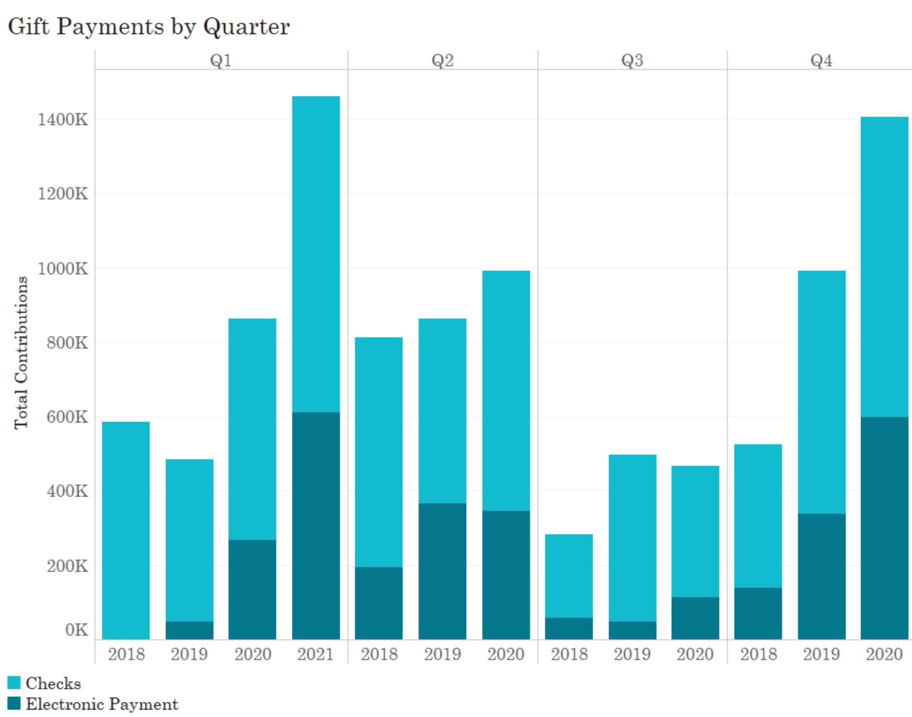
WASHINGTON COLLEGE SAVINGS PLANS

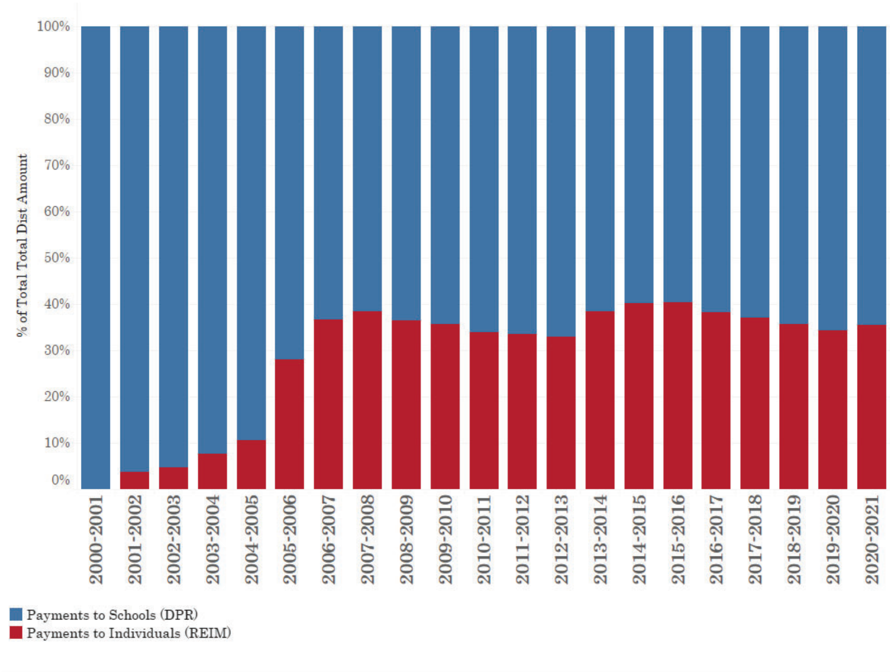


Notes: *Data-as-of 2.18.21. Quarters follow the calendar year.*

GET Distribution Statistics

WA529
WASHINGTON COLLEGE SAVINGS PLANS

Distributions to Schools vs. Individuals by Academic Year



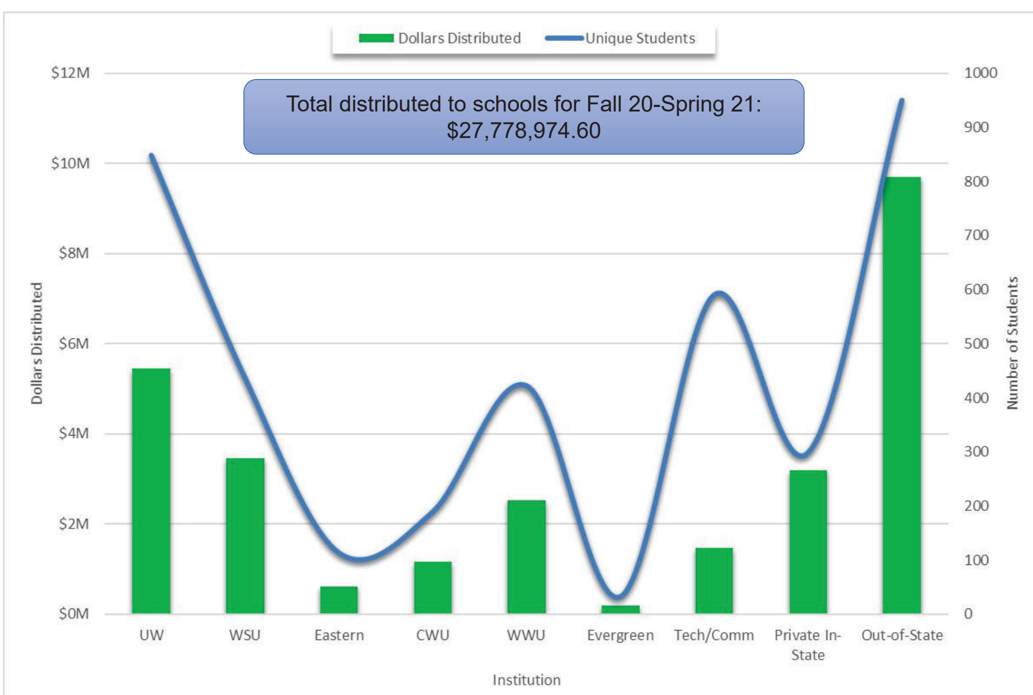
Total payments to schools (DPR): $810,618,815

Total payments to individuals (REIM): $466,772,009

Notes: *Data-as-of 4.19.21*

Fall-Spring Direct Payments by Institution

WA529
WASHINGTON COLLEGE SAVINGS PLANS



Notes: *Data-as-of 4.28.21* *Includes direct payments for August – March 2021.*

GET Contact Center Statistics

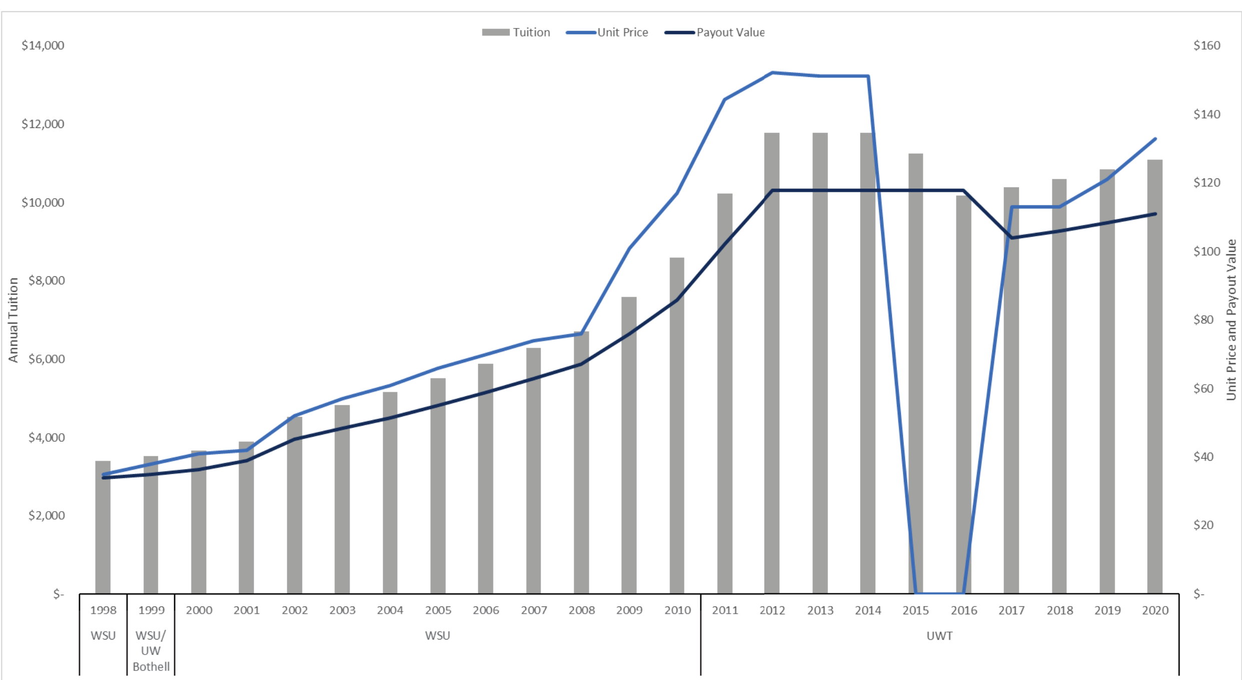
WA529
WASHINGTON COLLEGE SAVINGS PLANS

Contact Center Statistics	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Trend Line
Incoming Calls:	2464	2008	2388	1842	2130	
Calls Answered:	2398	1961	2220	1745	2002	
Average Speed of Answer:	:46	1:54	2:43	1:41	1:51	
Average Talk Time:	4:56	6:51	6:02	6:08	6:21	
Outgoing Calls:	912	1203	1329	930	1228	
Secure Messages Sent:	1138	1358	1340	1062	1321	
Emails Received in GETInfo:	376	558	529	434	519	
Outgoing Emails:	251	124	141	166	210	

Notes: *Data-as-of 4.19.21.* *Quarters follow the calendar year.*

Unit Price, Payout Value, and Tuition Cost Over Time

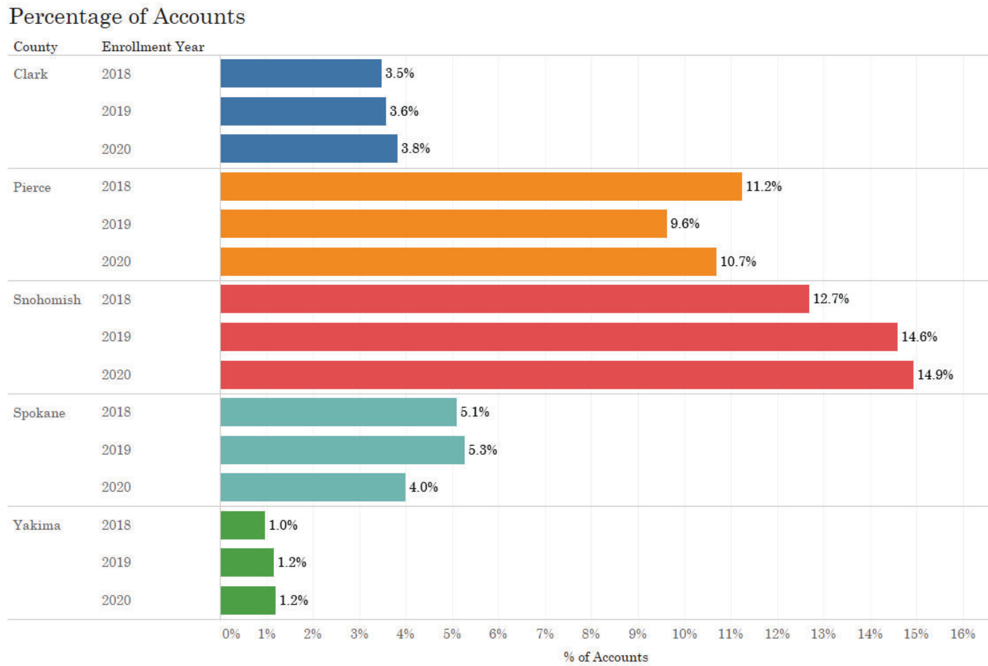
WA529
WASHINGTON COLLEGE SAVINGS PLANS



Notes: *Data-as-of 4.19.21. Based on historical and current information. Enrollment was closed during 2015 and 2016 tuition years.*

WA529 Opportunity Counties

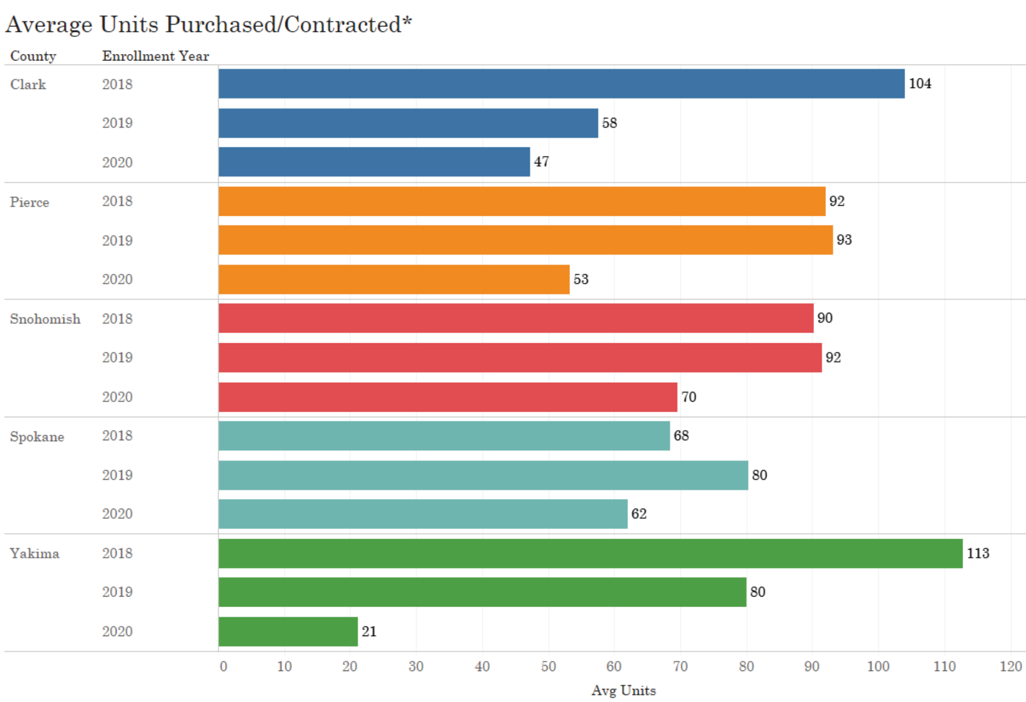
WA529
WASHINGTON COLLEGE SAVINGS PLANS



Notes: *Data-as-of 4.19.21 2020 is July-April 19th*

WA529 Opportunity Counties

WA529
WASHINGTON COLLEGE SAVINGS PLANS



Notes: *Data-as-of 4.19.21 2020 is July – April 19th* **Units purchased/contracted are applied to the year the account was established (enrollment year), which in some cases is is different than the year the units were purchased in.*

GET Prepaid College Tuition Program

Quarterly Report – March 31, 2021

Portfolio Size, Allocation, and Assets Under Management 2

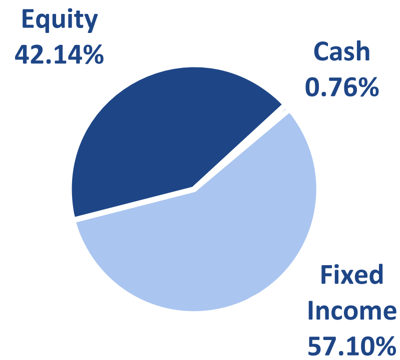
Performance 3

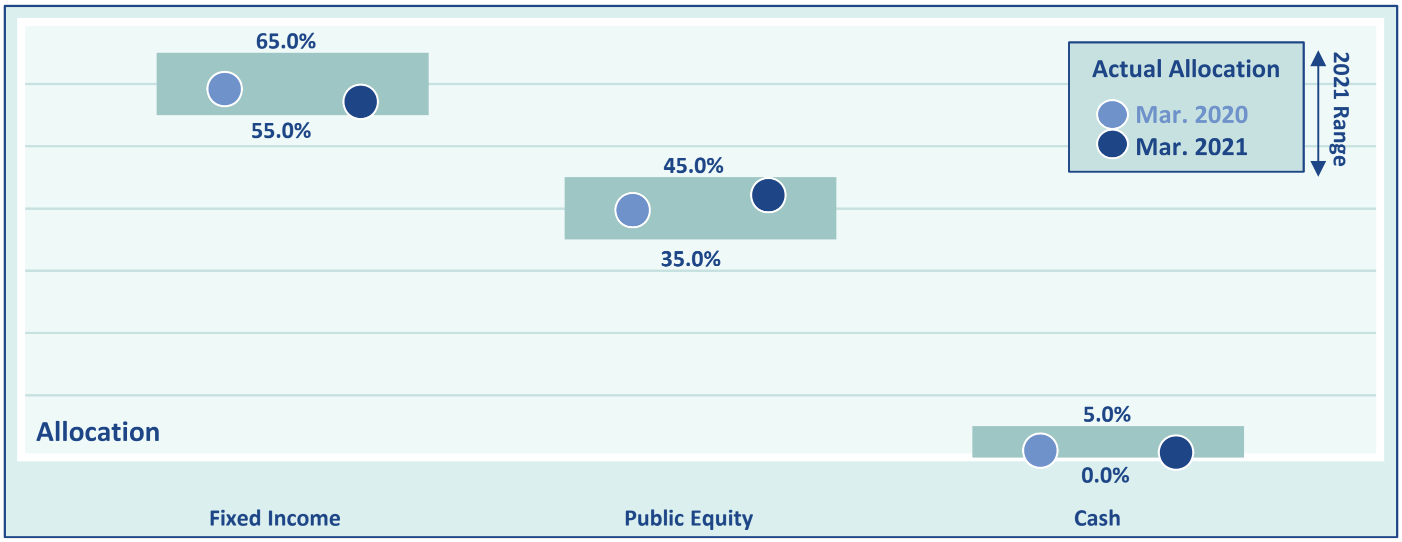
Market Environment 4

Portfolio Size

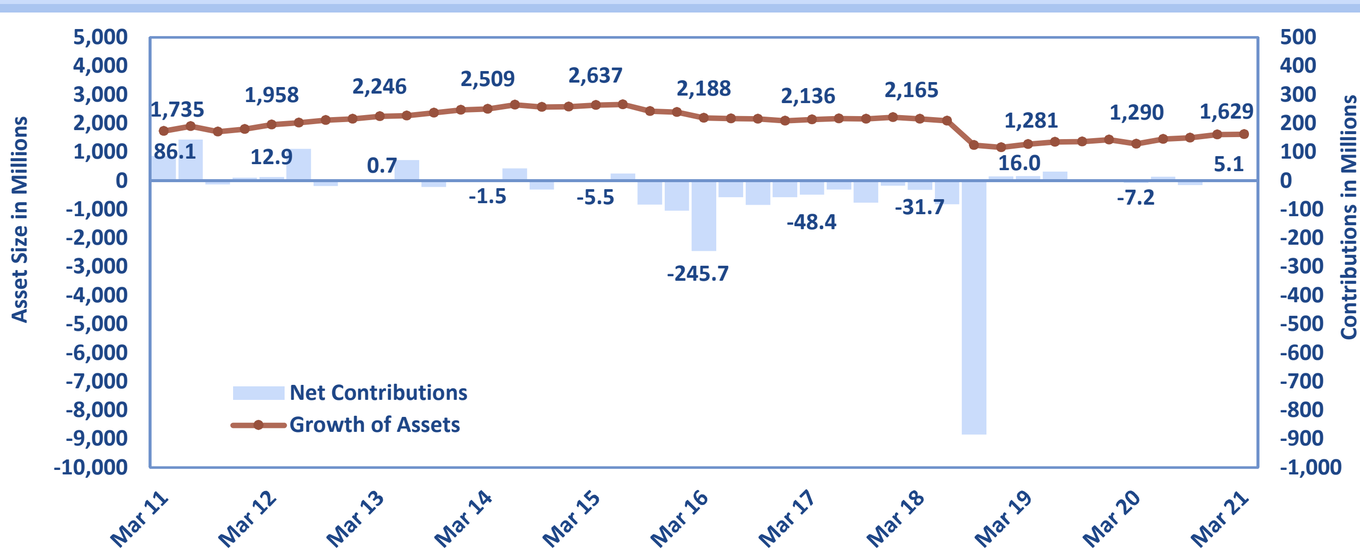
Total	**$1,628,705,471**
Cash	$12,310,864
Fixed Income	$930,046,371
Equity	$686,348,236

Actual Asset Allocation





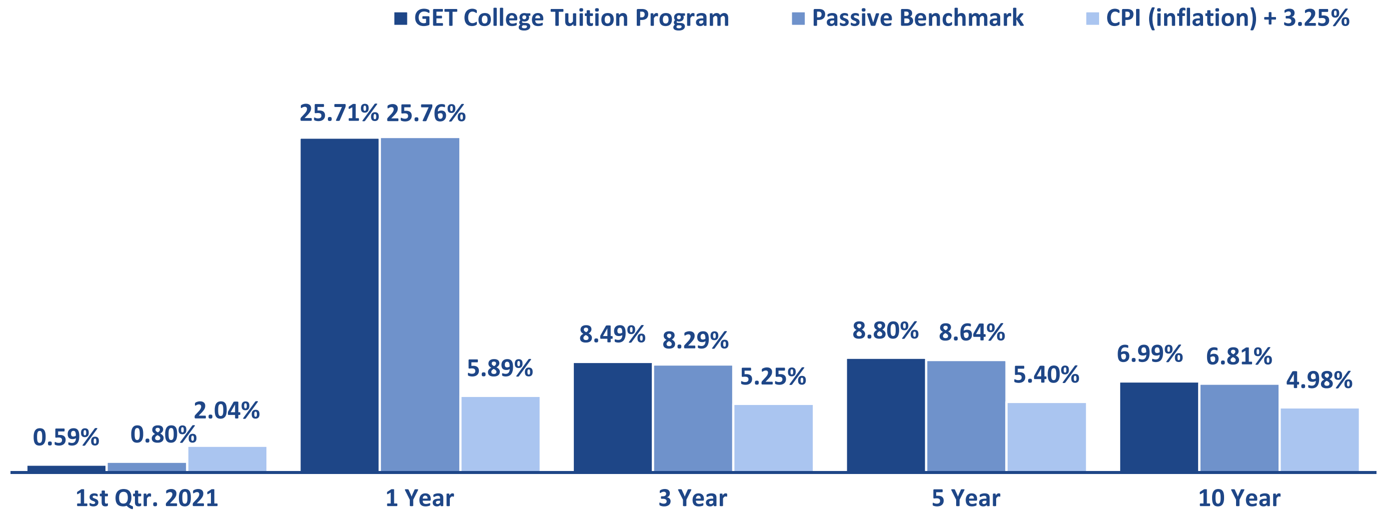
Assets Under Management



GET Prepaid College Tuition Program

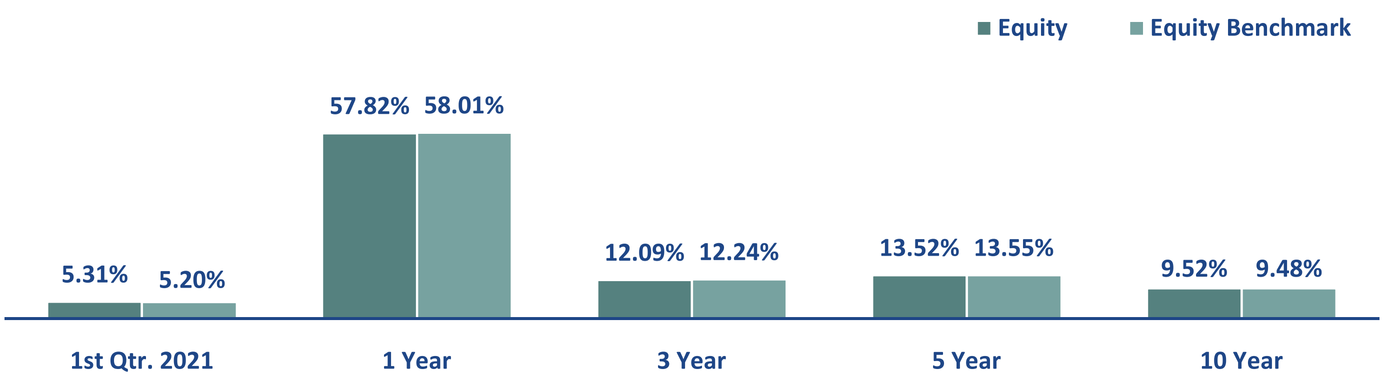
Quarter Ended March 31, 2021

Total Return *



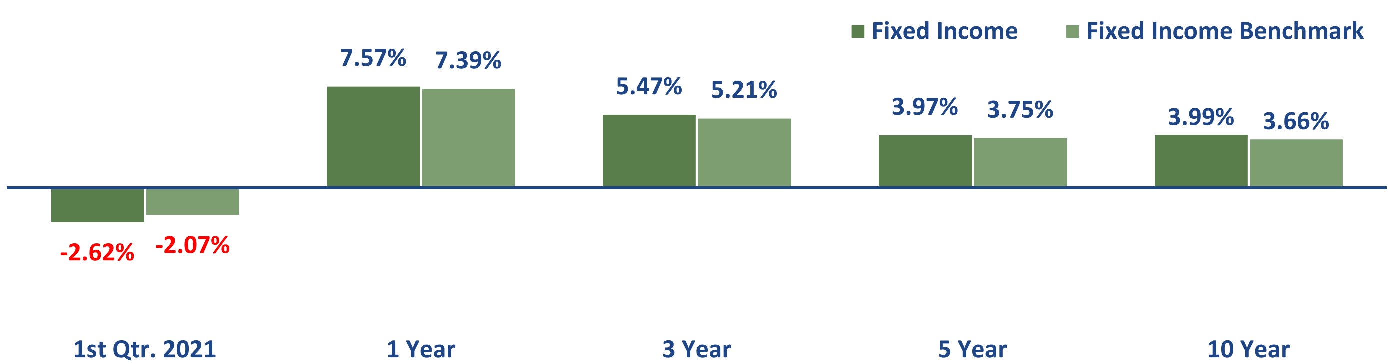
Equity Return *

Benchmark: MSCI ACWI IMI w/U.S. Gross and a historical blended return



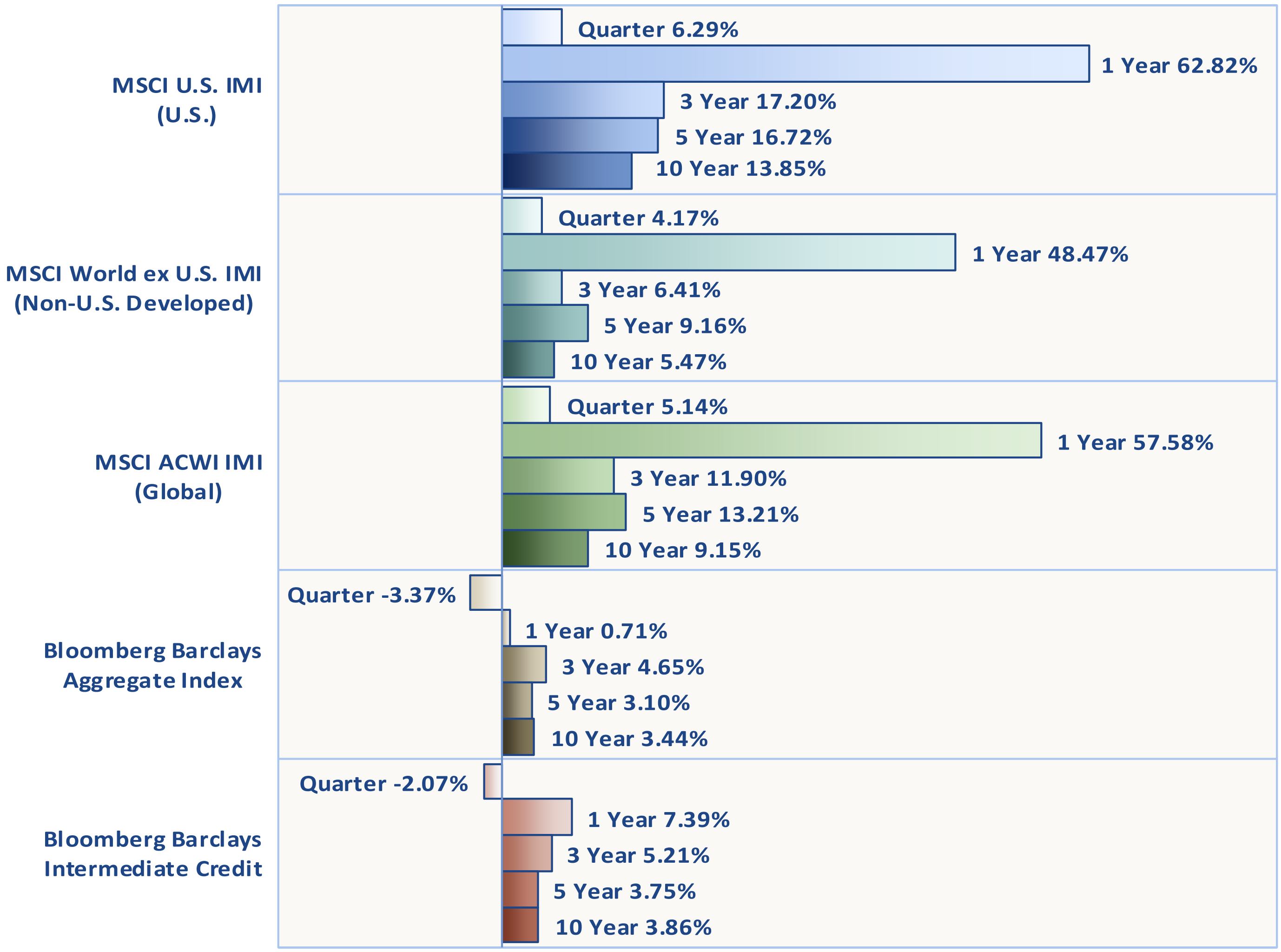
Fixed Income Return *

Benchmark: Bloomberg Barclays Intermediate Credit and a historical blended return



* The return numbers above are net of manager fees and other expenses that can be directly debited from the account for portfolio management but do not include the WSIB management fee.

Market Environment



- Equity markets enjoyed strong Q1 performance based on twin tailwinds -- massive fiscal stimulus and successful COVID vaccine roll-outs in the U.S. and U.K.
- Since the equity market bottom on March 23, 2020, the MSCI World Developed index rallied 79% as of March 30, 2021.
- For Q1, the Russell 1000 Value index (11.24%) outperformed the Russell 1000 Growth index (0.94%) and the broader based S&P 500 index (6.17%).
- The best performing sectors were Energy (18.57%) and Financials (11.99%).
    - Energy was helped by a continued rebound in the price of oil.
- The Fed kept interest rates unchanged this quarter, but U.S. interest rates went considerably higher as inflation concerns gained attention.
- The U.S. 10-year Treasury rate increased by 83 basis points to end at 1.74%.
- The Bloomberg Treasury index fell 4.25% for the quarter and is down 4.43% over the last year.
    - The Bloomberg High Yield index returned 0.85% for the quarter and is up 23.72% over the last year.
- Emerging markets underperformed the developed markets this quarter as several countries are being hit hard by the pandemic.

DreamAhead
COLLEGE INVESTMENT PLAN

2021 First Quarter Committee Report

May 6, 2021

Overview for the Current Quarter (Quarter-over-Quarter)

Description	Statistic	% Change vs. Last Quarter
Assets Under Management	$800,005,603	-2%
Funded Accounts	26,128	1%
New Accounts	817	15%
Accounts with Zero Dollar Balance	6,440	11%
Market Performance	-$5,471,121	-116%
Contributions	$13,963,989	27%
Distributions	$26,681,723	7%

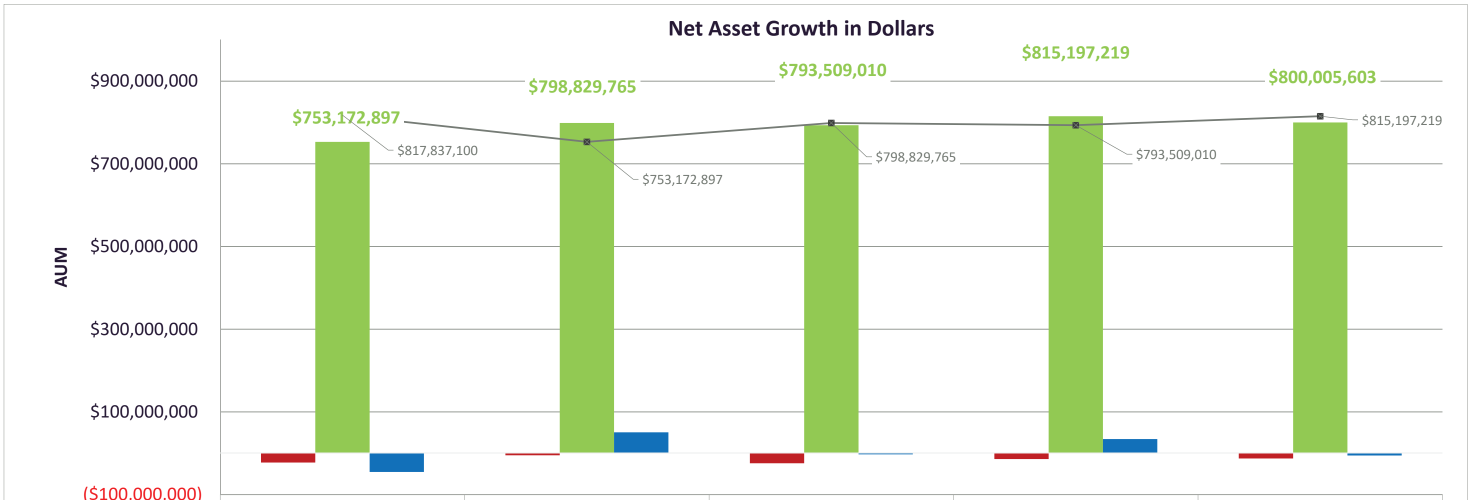
*Previous quarter's market performance was positive ($34,420,331)

Overview for the Current Quarter (Year-over-Year)

Description	Statistic	% Change vs. Last Year
Assets Under Management	$800,005,602.73	6% Increase over last year
Funded Accounts	26,128	1% Increase over last year
New Accounts	817	10% Increase over last year
Accounts with Zero Dollar Balance	6,440	157% Increase over last year
Market Performance	-$5,471,120.76	88% Decrease over last year
Contributions	$13,963,988.70	55% Increase over last year
Distributions	$26,681,722.54	15% Decrease over last year

Net Asset Growth

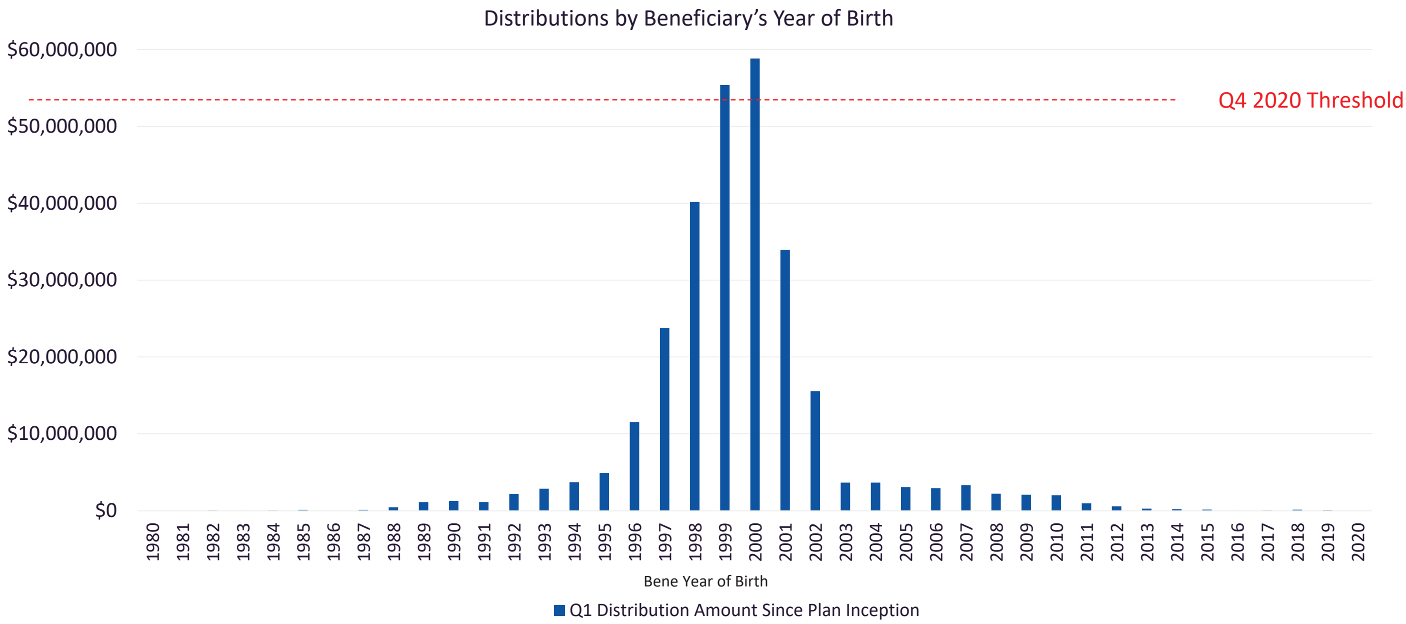
Net flow for Q1 increased by 10% from Q4, while Market Performance increased by 88% year-over-year.



	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021
Net Flow	($22,401,217)	($4,931,076)	($24,233,678)	($14,052,340)	($12,717,734)
Total AUM	$753,172,897	$798,829,765	$793,509,010	$815,197,219	$800,005,603
Market Performance	($45,262,724)	$50,587,944	($2,695,023)	$34,420,331	($5,471,121)
Previous AUM	$817,837,100	$753,172,897	$798,829,765	$793,509,010	$815,197,219

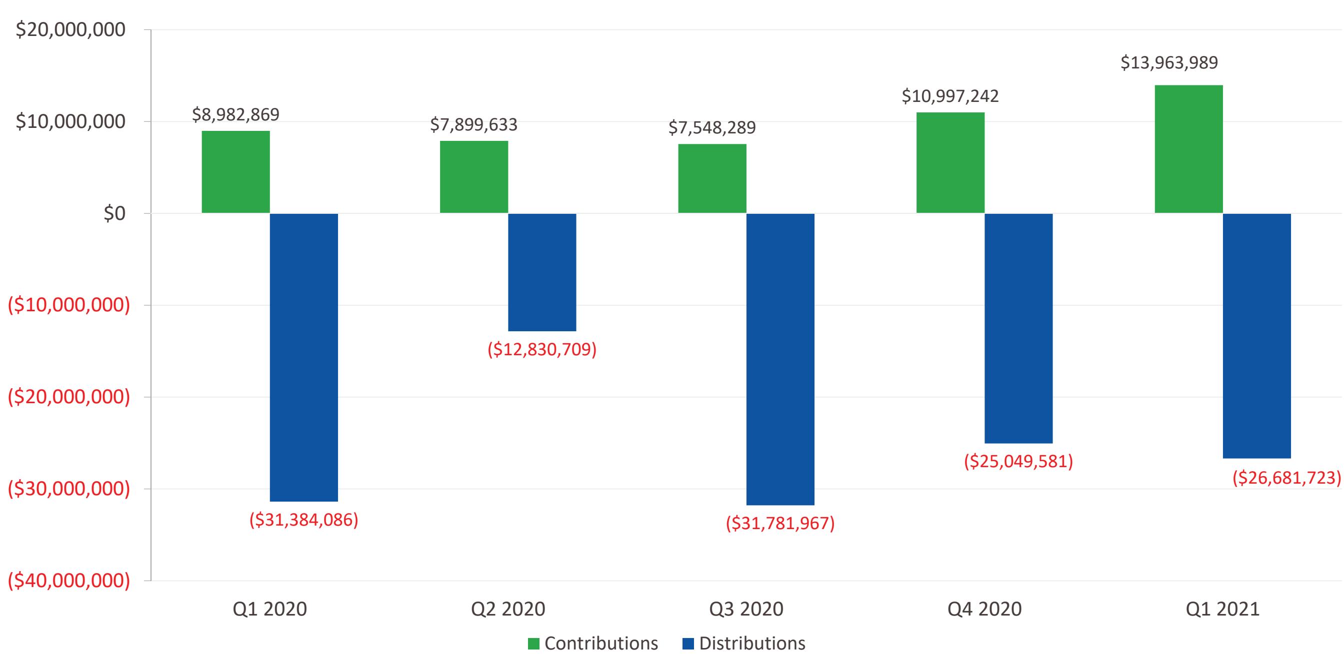
Distributions by Age Since Plan Inception

Total Plan Distributions Since Inception: $283,826,537 as of 3/31/2021

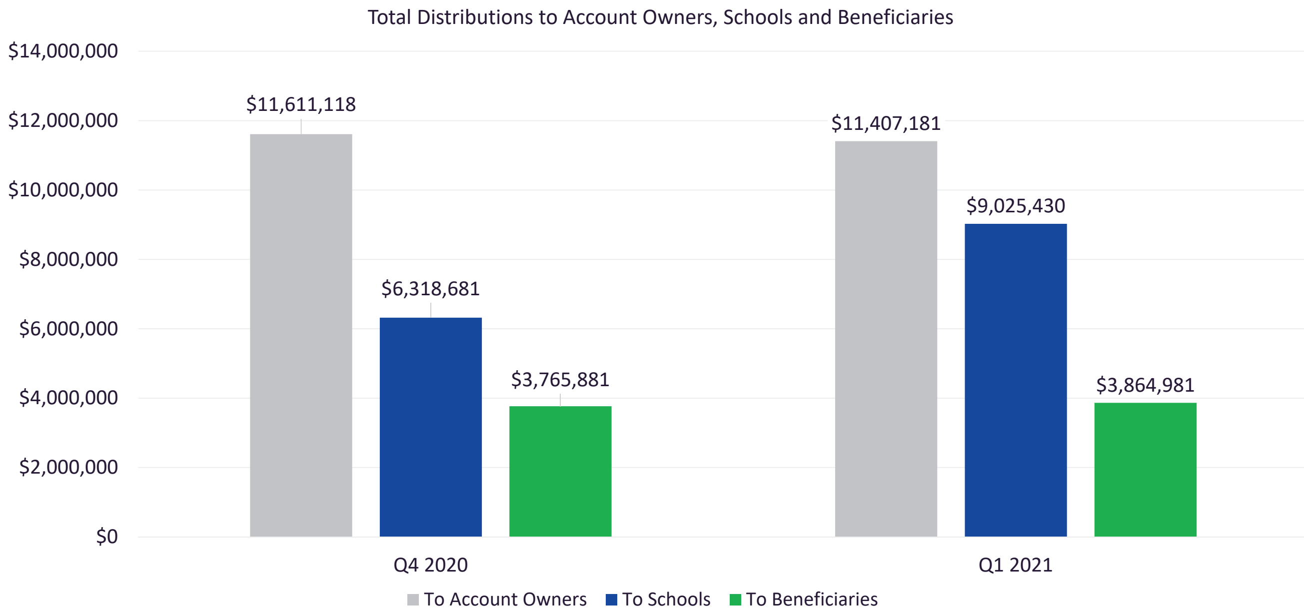


Contributions & Distributions

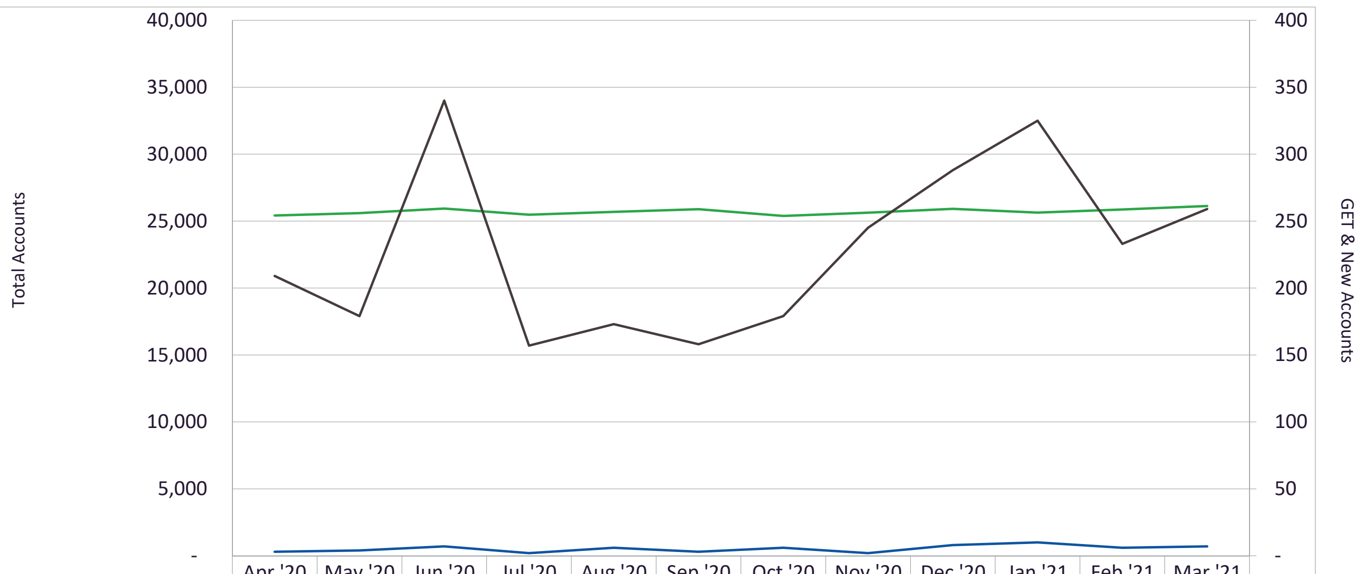
Net flow in Q1 increased by 10% over Q4



Distributions by Recipient

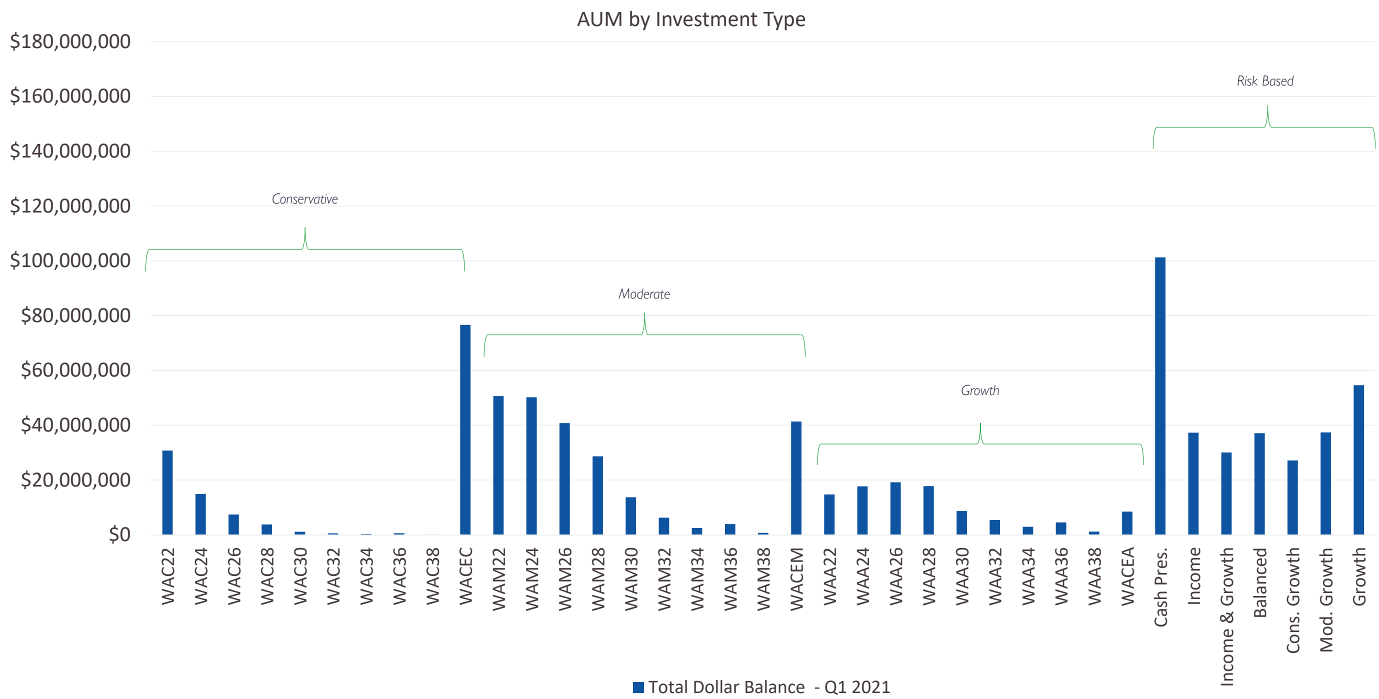


Cumulative Account Growth – Last Twelve Months

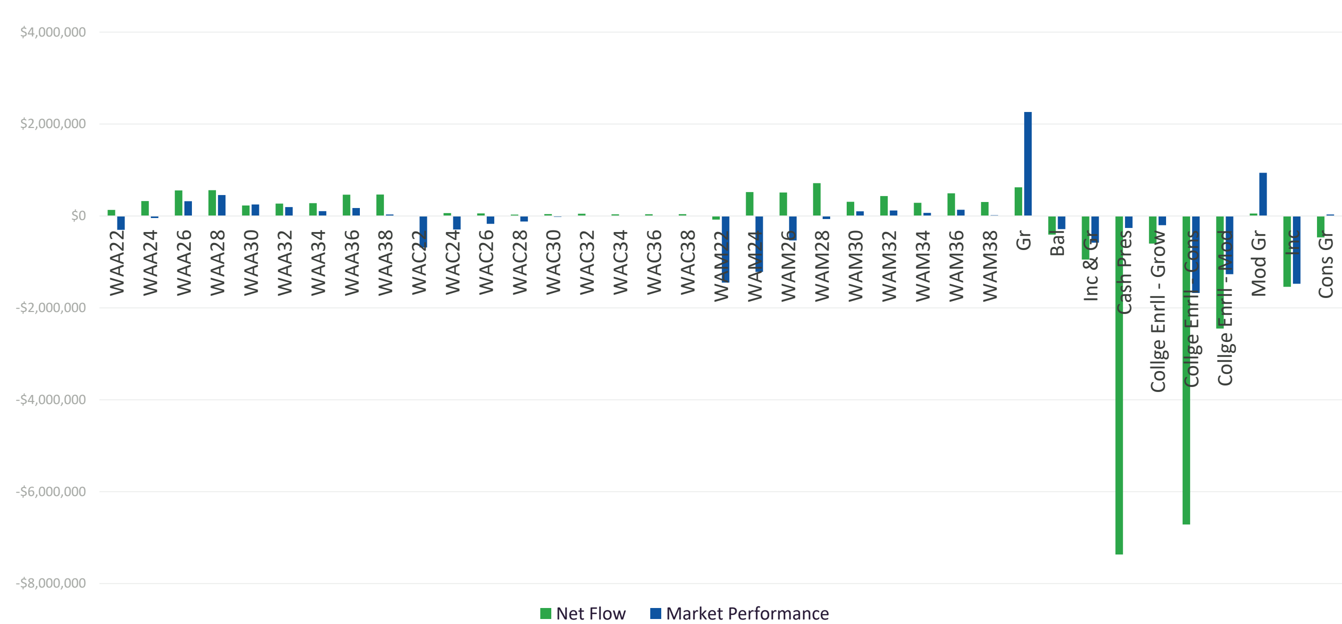


	Apr '20	May '20	Jun '20	Jul '20	Aug '20	Sep '20	Oct '20	Nov '20	Dec '20	Jan '21	Feb '21	Mar '21
Total Funded Accounts	25,419	25,598	25,938	25,475	25,689	25,886	25,383	25,628	25,916	25,636	25,869	26,128
GET Rollover	3	4	7	2	6	3	6	2	8	10	6	7
New Accounts	209	179	340	157	173	158	179	245	288	325	233	259

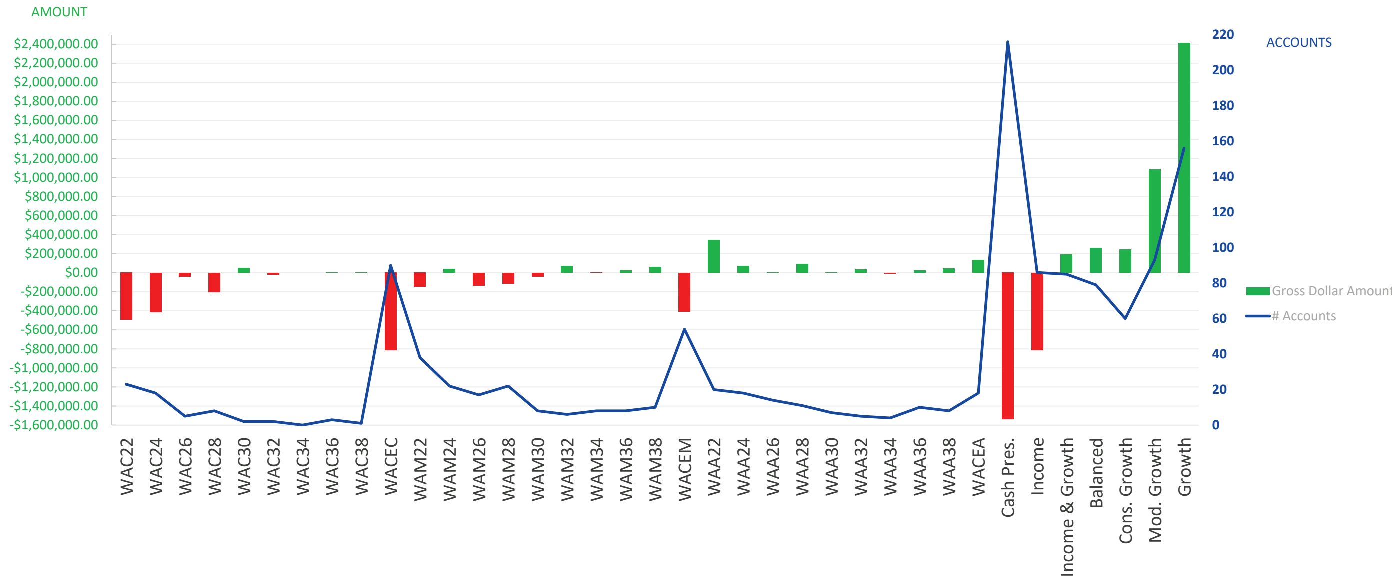
Investment Distribution



Cash Flow by Investment Portfolio Q1 2021

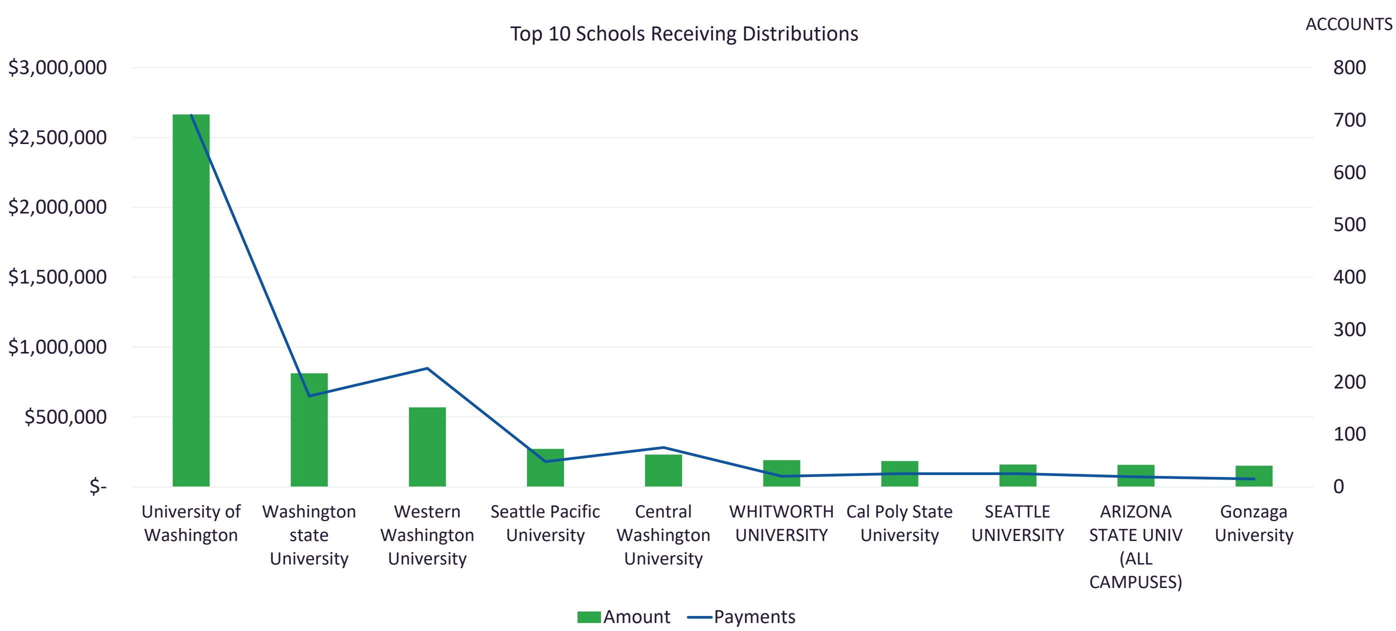


Fund Exchange Report Q1 2021



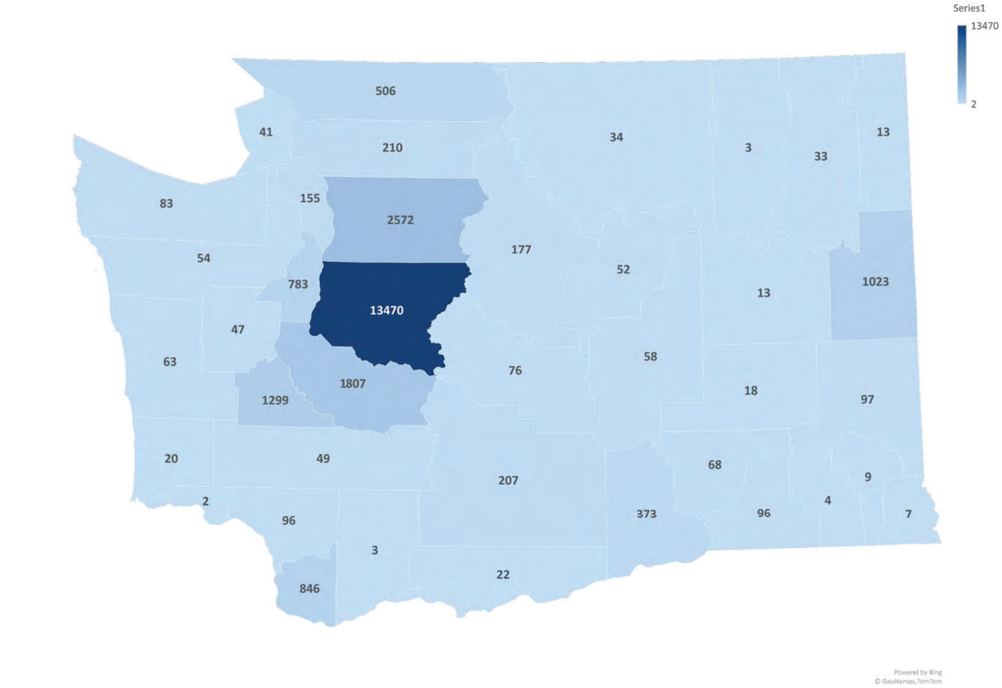
 Information Classification: Public

Tuition Distributions Q1 2021

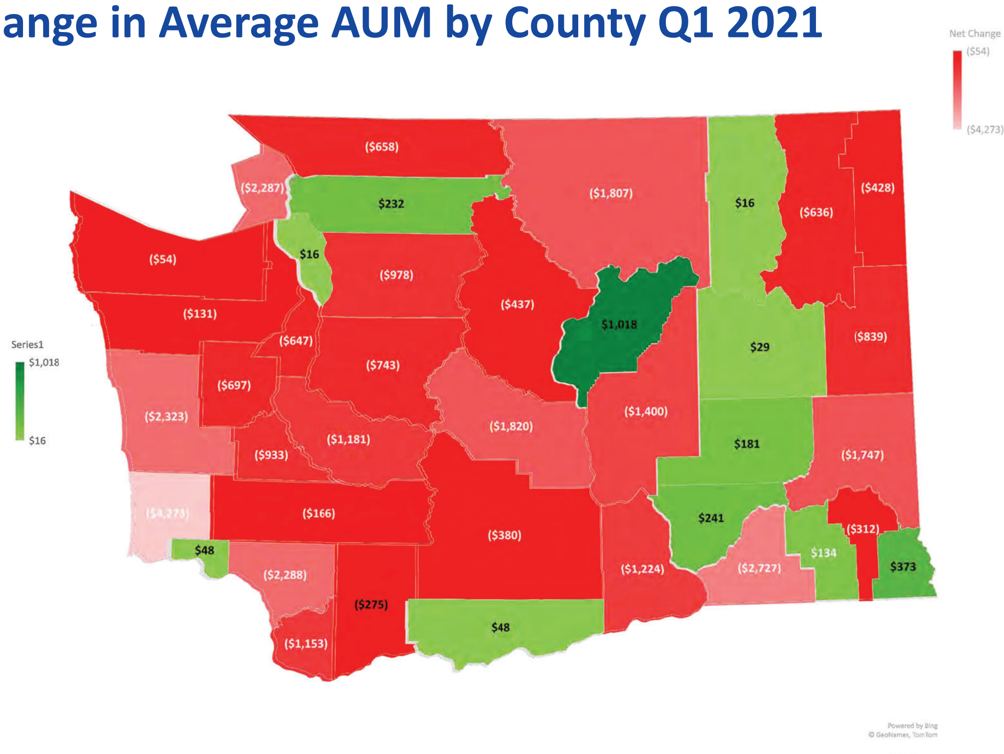


 Information Classification: Public

Number of Accounts by County Q1 2021

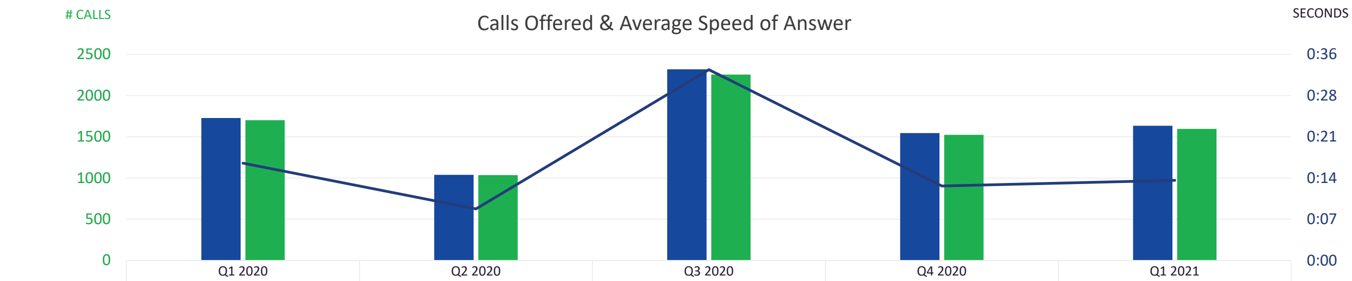


Net Change in Average AUM by County Q1 2021



Customer Service

Call Center Statistics



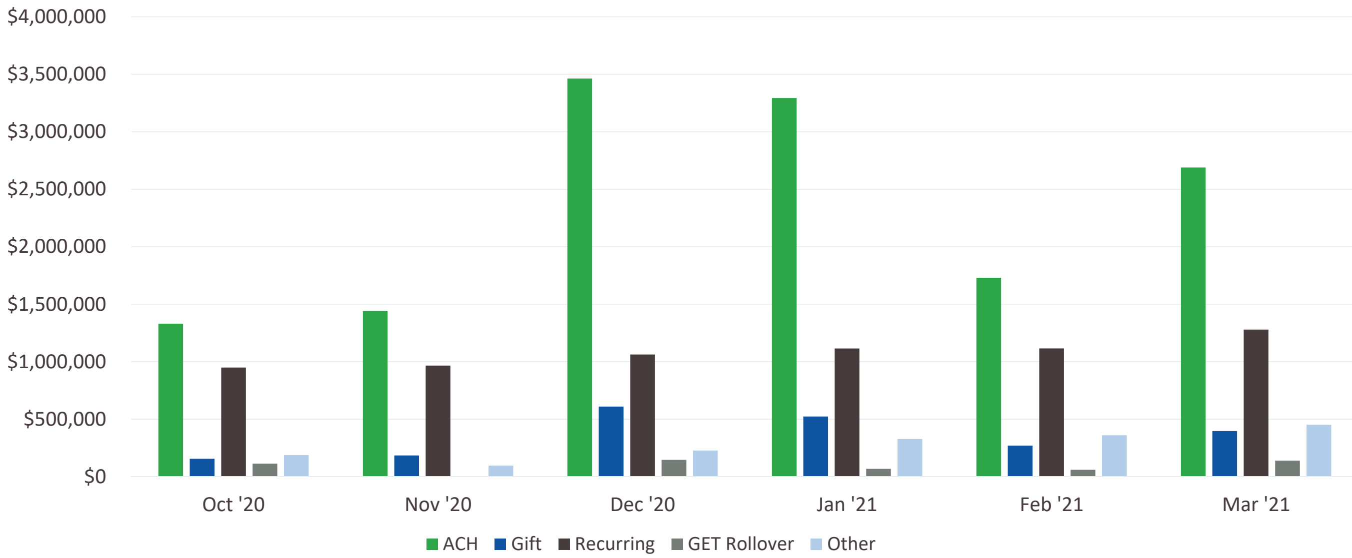
	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021
Calls Offered	1728	1039	2319	1545	1634
Calls Answered	1702	1035	2255	1524	1596
ASA	0:17	0:09	0:33	0:13	0:14

Q1 2021's most common customer inquiries to the Call Center:

- Tax related inquiries
- Assistance with opening a new account
- Assistance with accessing/navigating online access

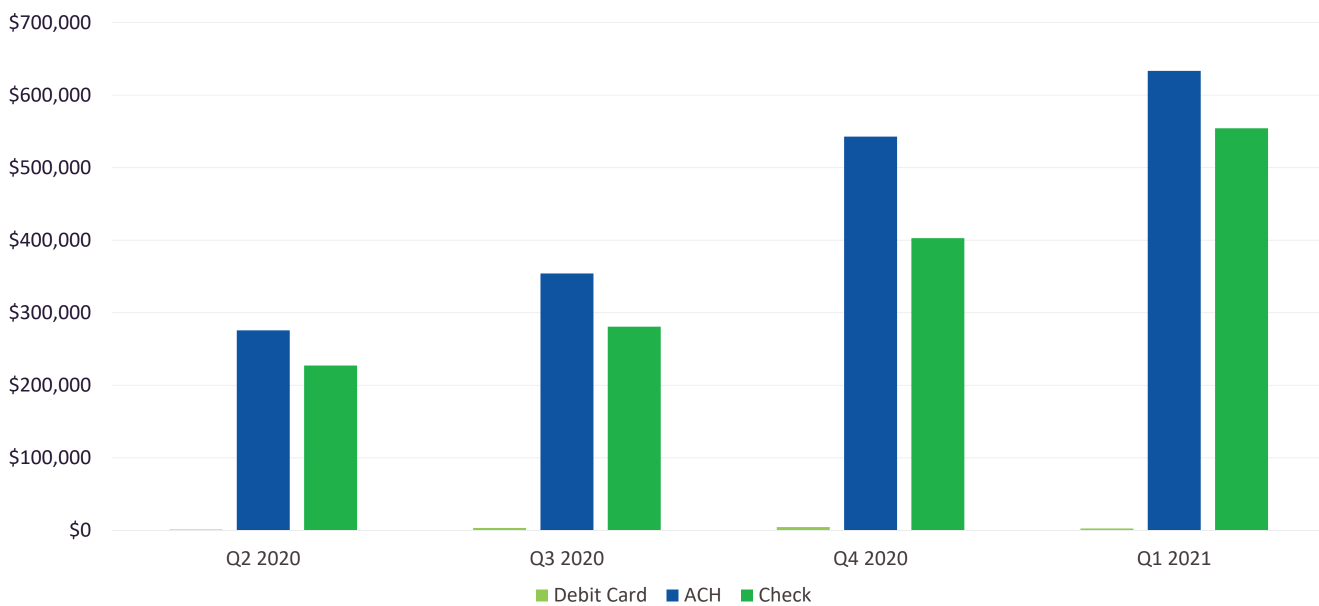
APPENDIX

Contributions by Source Q1 2021

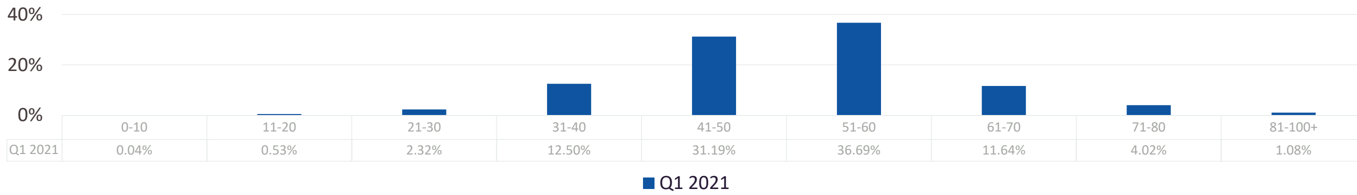


* Contribution sources are mutually exclusive
* "Other" represents Checks, Non-GET Rollovers and Payroll Deductions

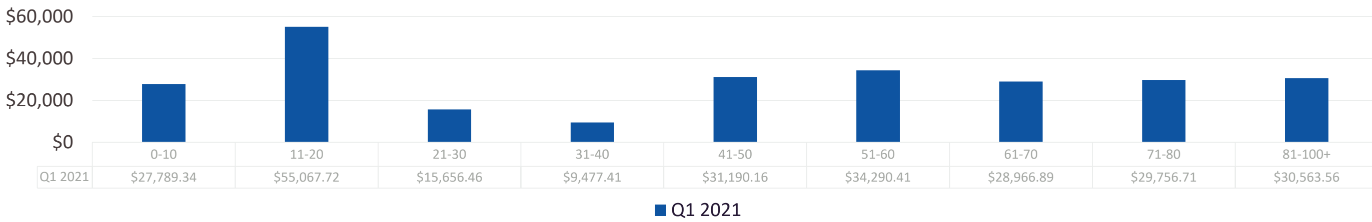
Gifting Activity – Contributions by Transaction Type Q1 2021



Account Owner Demographics Q1 2021



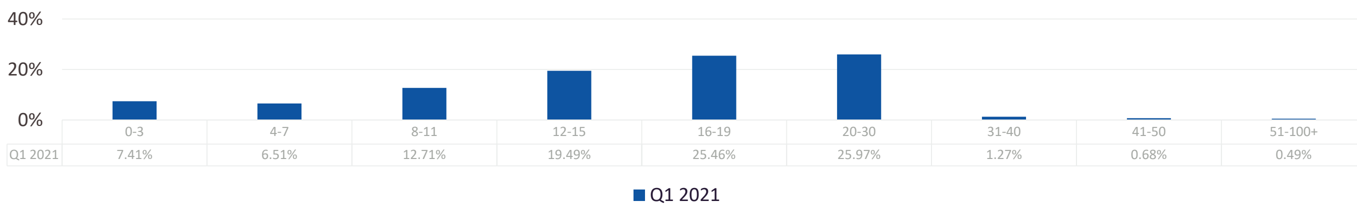
	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-100+
Q1 2021	0.04%	0.53%	2.32%	12.50%	31.19%	36.69%	11.64%	4.02%	1.08%



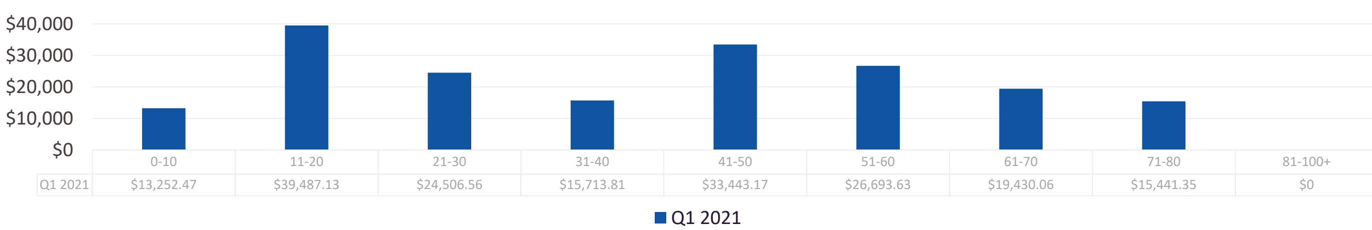
	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-100+
Q1 2021	$27,789.34	$55,067.72	$15,656.46	$9,477.41	$31,190.16	$34,290.41	$28,966.89	$29,756.71	$30,563.56

Information Classification: Public

Beneficiary Demographics Q1 2021



	0-3	4-7	8-11	12-15	16-19	20-30	31-40	41-50	51-100+
Q1 2021	7.41%	6.51%	12.71%	19.49%	25.46%	25.97%	1.27%	0.68%	0.49%



	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-100+
Q1 2021	$13,252.47	$39,487.13	$24,506.56	$15,713.81	$33,443.17	$26,693.63	$19,430.06	$15,441.35	$0

Information Classification: Public

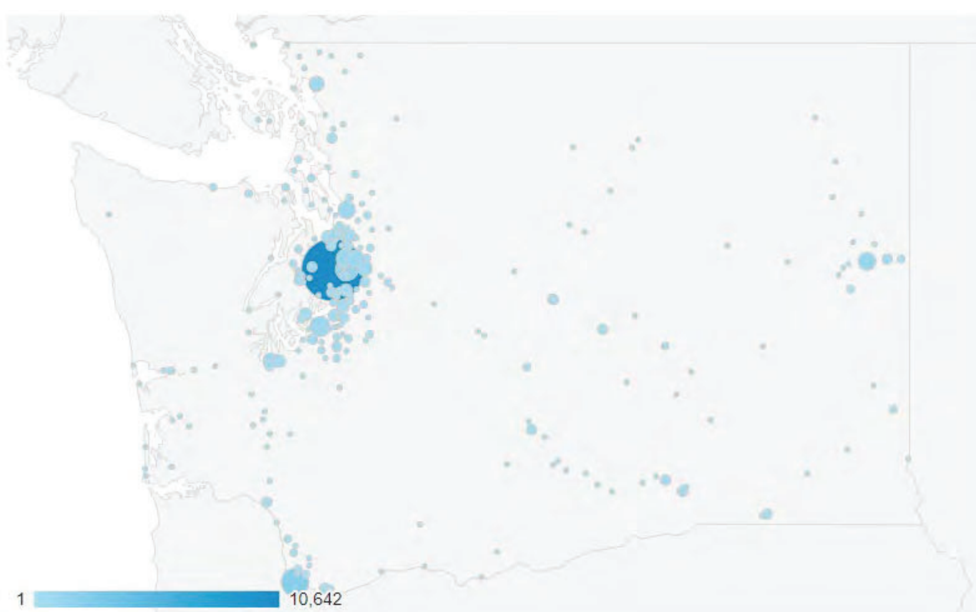
Google Analytics Q1 2021

User activity ranked by city

City	Acquisition			Behavior		
	Users	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration
	30,596 % of Total: 12.37% (247,282)	24,995 % of Total: 10.98% (227,554)	66,744 % of Total: 12.49% (534,226)	17.79% Avg for View: 24.01% (-25.93%)	10.15 Avg for View: 8.36 (21.48%)	00:05:10 Avg for View: 00:03:37 (42.61%)
1. Seattle	**10,642** (32.66%)	8,227 (32.91%)	21,733 (32.56%)	20.67%	9.31	00:04:49
2. Vancouver	**2,088** (6.41%)	1,583 (6.33%)	4,240 (6.35%)	16.49%	9.37	00:05:15
3. Bellevue	**1,394** (4.28%)	1,118 (4.47%)	2,862 (4.29%)	13.31%	11.55	00:05:17
4. Kirkland	**924** (2.84%)	721 (2.88%)	1,952 (2.92%)	15.06%	11.00	00:05:28
5. Tacoma	**909** (2.79%)	677 (2.71%)	1,793 (2.69%)	17.96%	10.52	00:05:22
6. Spokane	**852** (2.61%)	667 (2.67%)	1,865 (2.79%)	16.89%	10.31	00:05:27
7. Redmond	**816** (2.50%)	628 (2.51%)	1,661 (2.49%)	16.80%	10.92	00:05:08
8. Everett	**730** (2.24%)	580 (2.32%)	1,515 (2.27%)	18.48%	10.64	00:04:58
9. Olympia	**601** (1.84%)	470 (1.88%)	1,250 (1.87%)	16.64%	11.41	00:05:41
10. Sammamish	**586** (1.80%)	446 (1.78%)	1,105 (1.66%)	15.66%	12.03	00:06:22

Google Analytics Q1 2021

Online visits grew by over 25% from Q4



Online Users

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Investment Advisory Report

First Quarter 2021

Washington Student Achievement Council

Prepared by Lockwood Advisors, Inc.

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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 performed in line with their respective benchmarks in Q1 2021, trailing 12-month period through 3/31/2021, and calendar year 2020.
- No remedial action is necessary.
- There are no funds on the Watch List. All funds and portfolios have performed as expected.

Broad Market Macroeconomic Highlights

Five Trends to Consider

1. **Save or Spend?**
   Economists are divided on how the stimulus checks will affect inflation. Will recipients save the funds or spend it? Stimulus spending reverberates around the economy. Saving, on the other hand, may help personal finances but doesn't do much to help the economy grow more rapidly.

2. **Guns and Butter**
   Economists and public policy professionals have generally operated under a tradeoff between spending on weapons in wartime (i.e. guns) and domestic and social programs in peacetime (i.e. butter). Today, we're spending on both. What happens to the economy if we can't stop or don't want to stop spending?

3. **Ricardian Equivalence**
   British economist David Ricardo posited that a government that finances its expenditures with immediate taxes or deficit spending will have a limited effect on the economy, because taxpayers will save more to cover increased future taxes. Today’s savings growth may be due to both pandemic and future tax fears.

4. **The Treasury Put**
   Our response to COVID-19 included an experimental step for fiscal policy: sending direct payments to American households. Will households now expect direct cash payments every time there is a pronounced cyclical downturn? Helicopter money may be here to stay.

5. **A Chicken in Every Pot**
   The Biden administration, with a mostly Democratic Congress, looks to loosen the fiscal restraints. A large infrastructure bill in the works could improve growth as the multiplier effect on the overall economy is larger than the stimulus checks.

Lockwood Commentary: Getting Butter Every Day

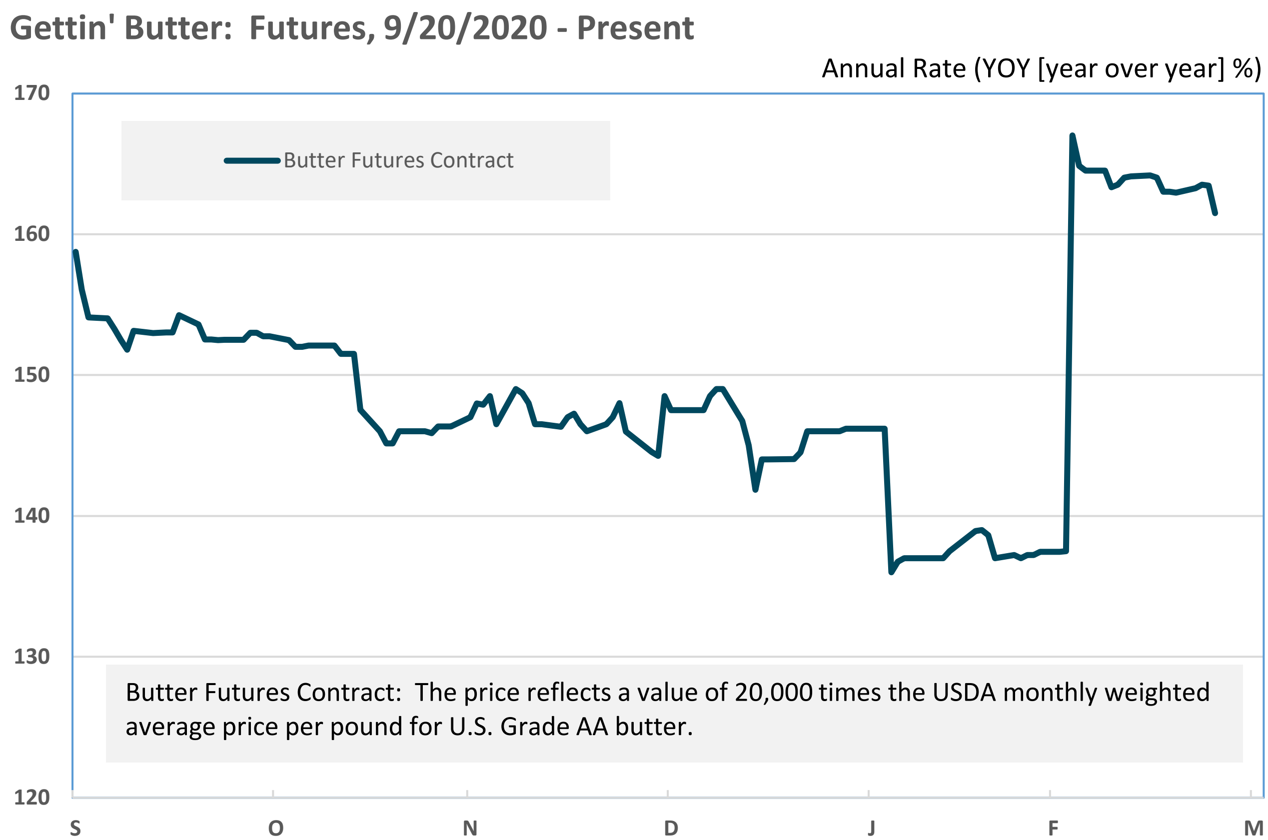
Market Overview
Index Returns (%) as of March 31, 2021

Index	1Q 2021	1 Yr.	3 Yr. ^	5 Yr. ^	2020	2019	2018	2017
S&P 500	6.2	56.4	16.8	16.3	18.4	31.5	(4.4)	21.8
MSCI USA Small Cap	12.9	95.2	15.6	16.5	18.9	27.4	(10.0)	17.3
MSCI EAFE (net of taxes)	3.5	44.6	6.0	8.8	7.8	22.0	(13.8)	25.0
MSCI Emerging Markets (net of taxes)	2.3	58.4	6.5	12.1	18.3	18.4	(14.6)	37.3
Bloomberg Barclays US Aggregate Bond	(3.4)	0.7	4.7	3.1	7.5	8.7	0.0	3.5
Bloomberg Barclays Global Aggregate ex-US	(5.3)	7.2	1.1	2.1	10.1	5.1	(2.1)	10.5
S&P GSCI Crude Oil	21.9	188.9	(3.1)	9.1	(20.5)	34.5	(24.8)	12.5
S&P GSCI Gold	(9.8)	4.4	7.4	5.5	20.9	18.0	(2.8)	12.8
Bloomberg Commodity	6.9	35.0	(0.2)	2.3	(3.1)	7.7	(11.2)	1.7
Bloomberg Barclays US Treasury Bill 6–9 Month	0.0	0.2	1.8	1.3	1.2	2.6	1.8	0.7
Inflation §	0.9	1.7	1.9	2.2	1.2	2.3	1.9	2.1

^3-year and 5-year returns are annualized
Sources: MSCI; Bloomberg Barclays; Standard and Poor's (©2021, S&P Dow Jones Indices LLC. All rights reserved); Bureau of Labor Statistics.
§ Inflation data through February 2021. 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.**

We're getting butter every day. The economic data is showing a robust recovery for the U.S. and most of the global economy, but, like butter, may be too much of a good thing. A recent poll called "Stress in America" from the American Psychological Association of over 3,000 U.S. adults found that some 42% of U.S. adults reported packing on undesired weight since the start of the pandemic. Of this group, adults reported gaining an average of 29 pounds (with a typical gain of 15 pounds, which is the median). Have our policy makers overcooked the economic dish, just like we seem to have overdone it with the lockdown eating?

What do Americans plan to spend their stimulus checks on other than butter? The U.S. Census Bureau Household Pulse Survey for late February found that 52% of Americans planned to pay down debt, while 28% would mostly spend it and the remaining 19% would save it.



USDA = United States Department of Agriculture.
Source: Bloomberg. Visual created by Lockwood Advisors, Inc. Data as of March 25, 2021.

Save or Spend?

The dynamics of consumer inflation and savings and investment expectations pose important questions for the economy as we head into the spring of 2021. Economists are divided on what recipients will do and how the stimulus checks will affect inflation and other macroeconomic variables. Will eligible recipients save the funds or spend it? For some, the stimulus checks form a much-needed lifeline in a time of stress. That spending reverberates around the economy as it is spent, but probably replaces lost income rather than creates much new growth. To other households, the funds will pay down debts such as credit cards. According to the survey, the vast majority (71%, or 52% + 19%) intend to save it, not spend it.

Thrift may help personal finances but doesn't do much to help the economy grow more rapidly. It may help the stock or bond markets to the extent the cash ends up in the markets. Other surveys, like ones from Deutsche Bank, show that young Americans aged 25-34 intend to spend 50% of their stimulus checks in the investment markets. According to the same survey, other age groups would invest 37-40%. Even if consumers spend it and if they buy foreign goods, that cash mostly ends up overseas and weakens the dollar as well.

A working paper from the Federal Reserve Bank of San Francisco from last summer began to answer the question of what pandemics do to an economy and how those events are different than wartime. Oscar Jordà, Sanjay Singh and Alan Taylor found that:

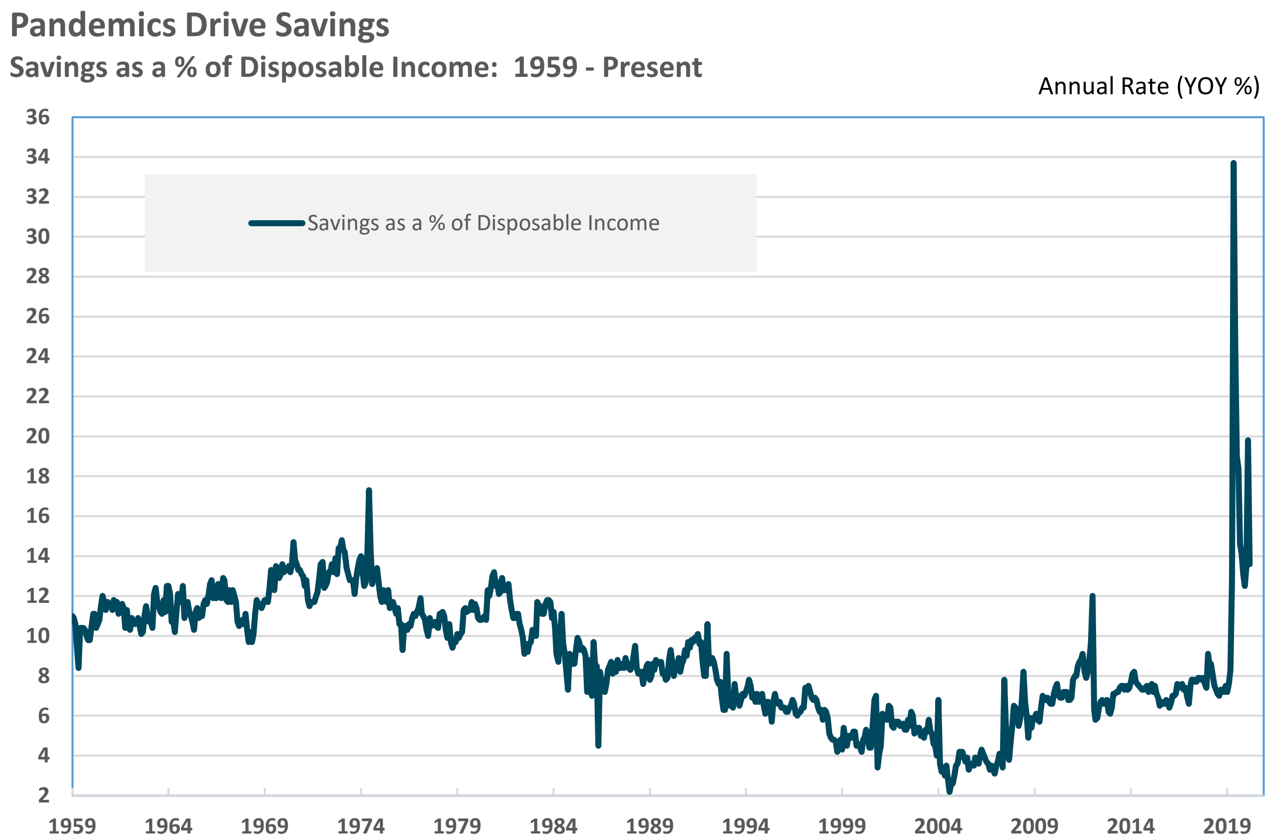
"Significant macroeconomic after-effects of pandemics persist for decades, with real rates of return substantially depressed, in stark contrast to what happens after wars. Our findings are consistent with the neoclassical growth model: capital is destroyed in wars, but not in pandemics; pandemics instead may induce relative labor scarcity and/or a shift to greater precautionary savings."

Source: Jordà, Òscar, Sanjay R. Singh, Alan M. Taylor. 2020. "Longer-Run Economic Consequences of Pandemics," Federal Reserve Bank of San Francisco Working Paper 2020-09. https://doi.org/10.24148/wp2020-09

The above survey data appears to confirm that pandemics tend to increase savings rates as consumers attempt to build a cushion to weather the event. The actual data bears this out as well (see chart below). Not only has savings increased quite a bit, but the velocity of money has slowed. This data indicates consumers have been hoarding money, including cash and money-like securities. As we move through 2021, will the vaccine rollout begin to slow the growth of a savings cushion that Americans are building? Generating increased economic activity and rehiring the nearly 20 million displaced American workers is a central goal of the current policy mix. Recent data makes it seem likely that we will see a change in behavior to favor more spending.

Almost everything in the capital markets revolves around investor expectations. Interest rates are set according to what bond investors expect to happen to the real and nominal value of future cash flows. Stock prices react to the expected value of future dividends and earnings. Famous value investor Benjamin Graham was quoted as saying "In the short run, the market is a voting machine but in the long run it is a weighing machine." Graham was not referring to weighing all those Americans who have been eating up all the butter. He meant that, in the longer run, the markets assess the reality, the actual value of what has been created by an economic enterprise. In the short run, the markets vote on what they believe will happen in the future. In the short run, the stock market is a beauty contest.

Even in broad policy expectations, markets have operated for decades under the assumption that the Federal Reserve (the Fed) has issued an unofficial "put" option under the current level of equity markets. When one sells a put option, you are obligated to buy a security at a predetermined price if the buyer of the option wants to sell it to you. The Fed put means that should market conditions or liquidity devolve rapidly, investors in the market will exercise its option. It's not an actual put, but a belief and expectation that the Fed will intervene to protect the general economy from a deteriorating wealth effect if markets get too rough and stocks decline substantially. It forms an unstated third mandate of "market stability" for Fed policy behind price stability and full employment. It tends to encourage risk taking by market players who might sit on the sidelines when volatility and uncertainty reigns.



Source: Bloomberg. Visual created by Lockwood Advisors, Inc. Data as of February 28, 2021.

Guns and Butter

For many decades, the economics and public policy professions generally operated under the principle that there were constraints on government spending. In wartime, the government had to spend more on armaments and weapons. In peace, the government could spend more on domestic and social programs—that is, the butter. There was a central understanding that we could not afford to spend on both, or only in very unusual circumstances or over limited periods of time. Many people place the blame for rapid inflation during the later 1960s and 1970s on policy prescriptions that spent heavily on both the military in Vietnam and the "Great Society" social programs. The phrase "guns and butter" came from William Jennings Bryan, who resigned as Secretary of State from the Woodrow Wilson Cabinet in 1915. He objected to the loss of neutrality in World War I and to the cost of producing munitions over dairy. Literally, Bryan preferred butter over guns.

Our system of civics, borrowed from the British Parliament, evolved to constrain the executive branch or the King's excessive spending, most notably on foreign wars and expensive mercenaries. It wasn't lost on the U.S. Founding Fathers that King George III attempted to make the Colonies pay for military expenditures. The Founders designed a system where "money bills" originate in the House—the people's chamber—and must pass muster with a Ways and Means Committee. Expenditures required a way and a means to pay for them. The Committee on Ways and Means is the oldest committee in the U.S. Congress and the chief tax-writing committee in the House of Representatives. The history of the Committee underscores its importance in the structural design of the government. The operating concept behind our country's fiscal design is the constraint of a potentially wayward executive branch. That discipline has been eroding steadily over the decades and now seems almost completely lacking today.

When we use the phrase "guns and butter," we are not speaking of the gun control debate or recent tragic events. However, it is true that we are spending more on a personal level on armaments. The NSSF (National Shooting Sports

Foundation) reports nearly 5 million Americans purchased a firearm for the first time in 2020. Based on the same survey, 40% of purchases were conducted by purchasers who have never previously owned a firearm, data that reveals a country likely spooked by seemingly daily unrest. On a bigger scale, the "guns" portion of "guns and butter" refers to large budget expenditures on the nation's defense. The United States spends much more on defense than any nation in the world. In 2019, we spent $719 billion on defense outlays, far outpacing China by an estimated $261 billion. We are forecast to spend between 3 and 3.5% of gross domestic product (GDP) on defense expenditures for most of the next decade. The Defense establishment is concerned about the Taiwan Strait, the Persian Gulf and the Arctic among other potential hot spots. An escalation in geopolitical risk would be most unwelcome to a market that is just beginning to recover from COVID-19. So, we're spending on guns as well and that does not look likely to change.

What happens if the entire legislative and executive branches behave in concert and can't stop or don't want to stop spending? At the moment, we're spending on both guns and butter.

Ricardian Equivalence

David Ricardo (1772-1823), a British economist, posited that a government that finances its expenditures with either immediate taxes or deficit spending will have a limited effect on the economy. The reason is that taxpayers will surmise that current expanded levels of government expenditures, whether for guns or butter, will eventually have to be paid for with increased taxes. So, taxpayers will account for increased government spending by saving more to cover increased taxes in the future. Is the savings growth we're witnessing now due to fears of future taxes and fears of the pandemic? Perhaps both.

As we discussed in last quarter's commentary, the U.S. since before World War II has not had a major military or wartime experience without major tax increases. The COVID-19 pandemic has many similarities to a wartime event, as Jordà et al point out above. Biden's tax proposals from his candidacy rank among the top five largest tax increases in U.S. history. How are investors thinking about potential tax increases? The largest sources of demand for equities over the past five years have been wealthy individuals and corporate buybacks. Tax law changes, including capital gains tax increases, could put a dent in those sources of demand. Markets have generally ignored these developments as they are still not law and may face legislative hurdles to passage.

The Treasury Put

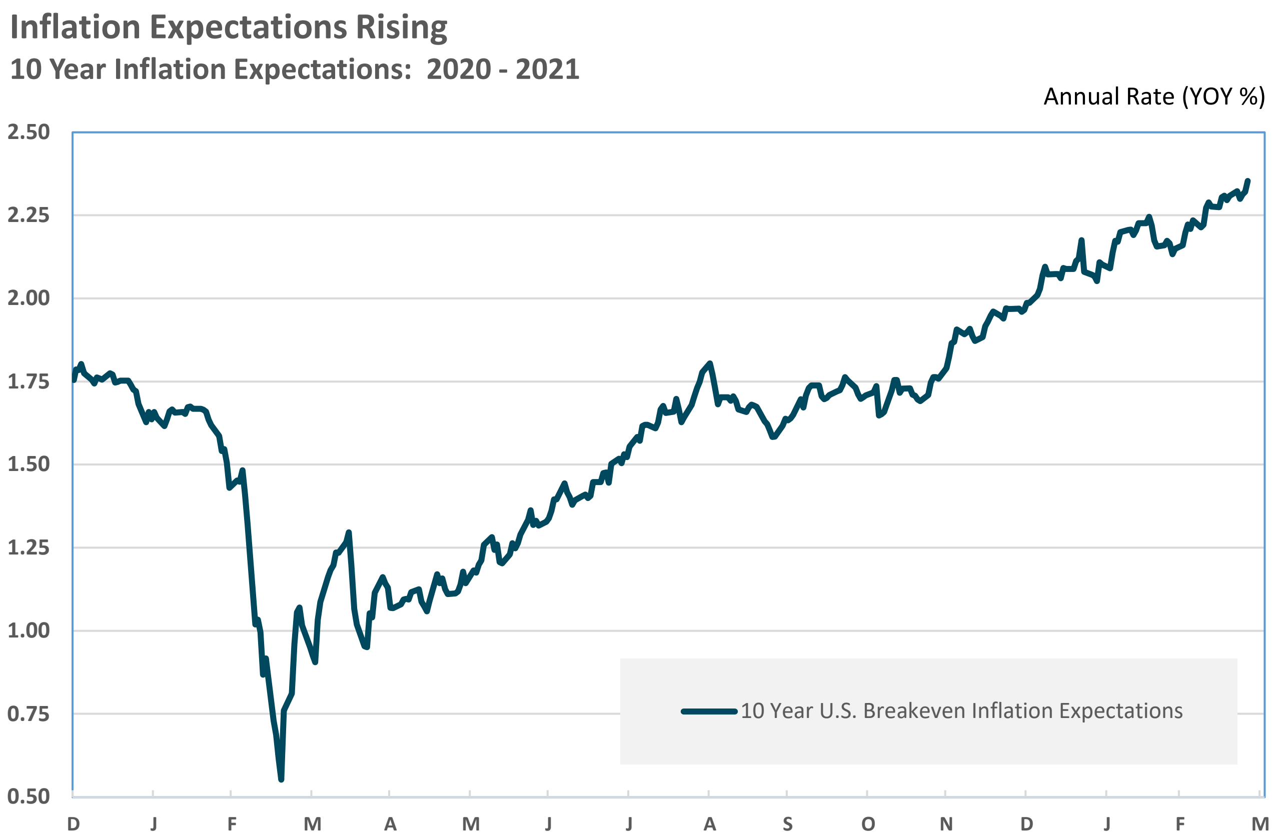
Our response to COVID-19 included an experimental step for fiscal policy. Sending direct payments to American households is a new occurrence outside of traditional unemployment assistance, social security or other welfare payments. Will households now expect direct cash payments every time there is a pronounced cyclical downturn? Has the U.S. Treasury issued taxpayers an income put option as well? The interest rate complex is repricing the possibility that fiscal policy has entered an entirely new and more expansive era. Helicopter money may be here to stay.

The permanent income hypothesis, as formulated by economist Milton Friedman in the 1950s, speaks directly to the expectations that consumers have when they set their spending level. Friedman predicted that consumers set their spending according to their expectations for average income over a longer future time period. A windfall of higher additional income such as a stimulus check may not be perceived as permanent, leading consumers to save most of the additional income rather than spend it.

Friedman also accounted for a liquidity factor. Some consumers may be conditioned to spend all current income rather than the take future income levels into account. This may be the operating demographic for the stimulus check recipients. For markets, the consideration is whether stimulus checks are now a permanent feature of the policy mix, leading to higher expectations for spending in the future.

Markets have begun to worry. Inflation expectations have moved sharply higher. A recent survey of over 2,600 Americans from CivicScience showed 77% were concerned about inflation. Moreover, the surveys showed younger Americans were most concerned. The Fed frequently speaks of inflation expectations as "anchored," but we are starting to see some drift higher from the low base of recent years.

One way to measure the market's expectations for inflation is by examining the breakeven rate, or the difference between 10-Year TIPS (Treasury Inflation Protection Securities), priced in "real" terms, and the 10-Year U.S. Treasury note rate, priced in "nominal" terms. The breakeven rate has moved sharply higher and now sits above the long-term 2% inflation target of the Fed. As the massive amounts of monetary and fiscal stimulus were unleashed in 2020, the markets responded by taking up their forecast for long-term inflation. In the fall, the Fed changed the way it sees its inflation target and will now allow the inflation rate to average 2% over a longer-term cycle. The result is the prospect of easier money from the monetary policy makers.



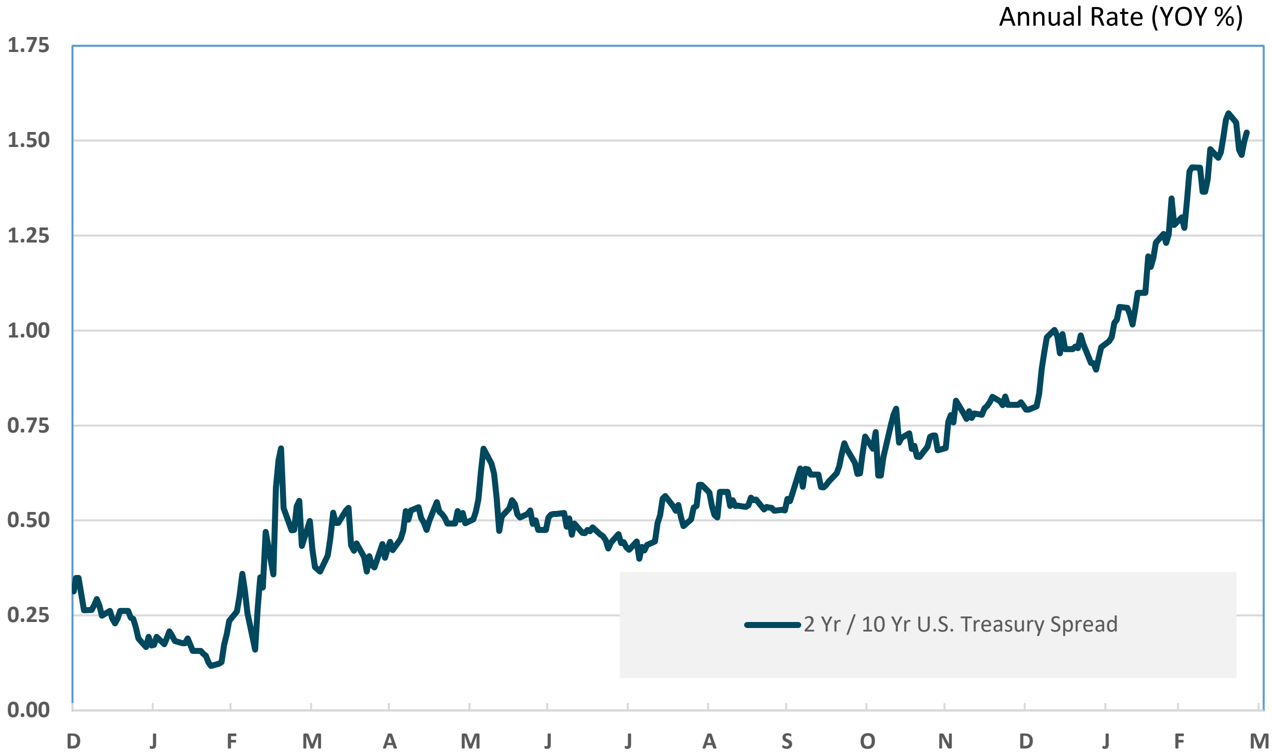
Sources: Bloomberg, U.S. Treasury, St. Louis Federal Reserve. Visual created by Lockwood Advisors. Data as of March 26, 2021.

Virtually all measures of future inflation expectations have risen. Actual inflation has not moved much, at least yet. We face the imminent prospect of higher inflation measurements as the base comparison to a year ago compares itself to the initial months of COVID-19 when many prices were declining rapidly. Pent-up demand for consumer goods, rapid money supply growth, past stimulus payments and potential infrastructure investments could all contribute to higher inflation. The question is how permanent these base effects to the CPI (consumer price index) will prove. Longer-term forces, including demographics, globalization and technology continue to operate against inflationary pressure. So far, the Fed has signaled they expect any price level increases to be somewhat temporary, a vestige of the recovery. Still, the near-term expected shock of higher inflation could give markets indigestion over the next several quarters.

Interest rates have followed the rising inflation expectations higher. With the short end of the curve "anchored" to expectations that the Fed will keep the policy rate (fed funds or IOER [interest on excess reserves]) at or near the zero boundary. This action means longer rates have been free to rise despite the fact that the Fed has also been purchasing bonds via QE (quantitative easing). We've been in a pronounced bear steepener for most of the past year. That is, bond rates have risen while the curve has steepened as long rates have risen faster than short rates.

Bear Steepener

2 Year / 10 Year U.S. Treasury Interest Rate Spread: 2020 - 2021



Sources: Bloomberg, U.S. Treasury, St. Louis Federal Reserve. Visual created by Lockwood Advisors. Data through March 26, 2021.

The rise in interest rates has implications for many market sectors. Clearly, the most impacted so far has been growth equities. Companies that are growing quickly with respect to others implies that revenues, earnings and dividends in the future could be quite higher than today. If a company is growing very quickly, why would it pay a dividend at all? It may make more sense to plow that cash back into the firm. If the discount rate is rising quickly, then it is impacting the values of all those future cash flows. This is true for all companies, but more so for growth equities. On a relative basis, value stocks are having their moment in the sun after a long drought. Growth stocks have stalled a bit for the moment. Only time will tell if the markets will reward stronger earnings growth despite a higher discount rate.

Equities, overall, historically have not been a bad inflation hedge. Small capitalization companies have also responded to the optimism that the COVID-19 vaccines will reset U.S. growth. Small companies typically get a much larger share of their revenues and earnings from domestic sources. Commodities, as well, have often served as a hedge against inflation. TIPS, while seeming to offer inflation protection, are also subject to a repricing of longer-dated bonds as they are relatively high duration instruments.

Higher inflation means that the value of the U.S. dollar, in real terms, may decline against foreign currencies. Foreign companies, who derive most of their revenue and earnings from abroad, can benefit if the dollar faces appreciation challenges. That is, as the U.S. dollar has declined, cash flows in foreign currencies are worth more than those in U.S. dollars. In addition to the currency movement, the valuation difference to the U.S. has made foreign equities attractive on a relative basis for many years. Like value stocks, that have been rallying in the face of better economic expectations, foreign equities may finally be getting additional attention.

A Chicken in Every Pot

Politicians have long promised better living standards. The Hoover administration promised "a chicken in every pot and a car in every garage." Unfortunately, they made their case on the eve of the Great Depression. Now, the Biden administration with a mostly Democratic Congress, looks to loosen the fiscal restraints. A large infrastructure bill in the works could improve growth as the multiplier effect on the overall economy is larger than the stimulus checks. Still, the increased spending will only come as a result of expanding the nation’s debt load even further than the already historic levels. More butter goes with the chicken in every pot.

Overcooked

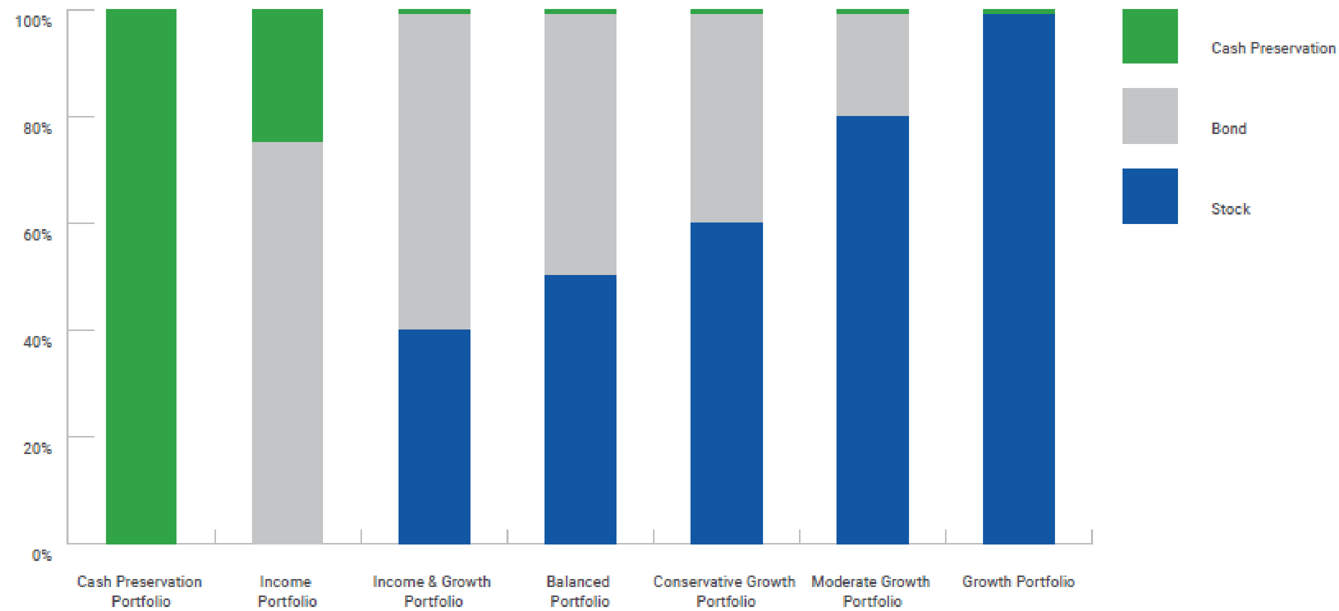
Our fiscal largesse may have overcooked the buttery macro stew as we head into the middle of the year. The repricing of interest rates has potentially profound challenges for many markets, not just bonds. We surmised that a reduction in volatility and a lessening of uncertainty could help markets during 2021. So far, that has generally been the case. Several COVID-19 vaccines are helping the U.S. and global economies recover rapidly and may be helping to reset consumer expectations that the worst of the COVID-19 era is coming to a close. A setback in that battle would be most unfortunate, but for the moment, markets seem to be looking ahead to the post-COVID-19 era. Despite some valuation and interest rate jitters, markets look like they are anticipating the start of a long economic expansion that goes well beyond mere recovery. After all, we're getting butter every day.

Performance Review

- All Static and Year of Enrollment portfolios have performed in line with their respective benchmarks in Q1 2021, trailing 12-month period through 3/31/2021, and calendar year 2020.
- No remedial action is necessary.
- There are no funds on the Watch List. All funds and portfolios 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 3/31/2021

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	Vanguard Federal Money Market Fund Investor Shares	VMFXX	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 3/31/2021

Growth Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	4.72	54.78	15.60
Net of All Fees Return	4.66	54.45	15.35
Blended Benchmark	4.80	54.75	15.54
Excess Return	-0.14	-0.30	-0.19

Moderate Growth Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	3.06	43.39	15.22
Net of All Fees Return	3.00	43.08	14.97
Blended Benchmark	3.06	43.16	14.90
Excess Return	-0.06	-0.08	0.07

Conservative Growth Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	1.35	31.69	14.42
Net of All Fees Return	1.30	31.40	14.17
Blended Benchmark	1.32	31.37	13.73
Excess Return	-0.02	0.03	0.44

Balanced Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	0.45	25.91	13.56
Net of All Fees Return	0.40	25.64	13.32
Blended Benchmark	0.46	25.70	12.84
Excess Return	-0.06	-0.06	0.48

Income & Growth Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-0.49	20.14	12.62
Net of All Fees Return	-0.55	19.88	12.38
Blended Benchmark	-0.47	20.11	12.04
Excess Return	-0.08	-0.23	0.34

Income Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-3.07	0.31	6.62
Net of All Fees Return	-3.12	0.09	6.38
Blended Benchmark	-2.94	0.48	6.52
Excess Return	-0.18	-0.39	-0.14

Cash Preservation Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	0.00	0.06	0.37
Net of All Fees Return	-0.05	-0.16	0.15
Benchmark	0.02	0.09	0.54
Excess Return	-0.07	-0.25	-0.39

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

Performance as of 3/31/2021.

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 2038	YoE 2036	YoE 2034	YoE 2032	YoE 2030	YoE 2028	YoE 2026	YoE 2024	YoE 2022	Enrolled
U.S. Large Cap Blend	Fidelity® Total Market Index Fund	FSKAX	15	13	12	9	7	4	3	2	0	0
U.S. Large Cap Blend	Schwab Total Stock Market Index Fund®	SWTSX	14	13	11	9	6	4	2	1	0	0
Foreign Large Blend	Fidelity® International Index Fund	FSPSX	19	18	16	12	8	5	4	2	0	0
Diversified Emerging Mkts	Fidelity® Emerging Markets Index Fund	FPADX	7	6	6	5	4	2	1	0	0	0
Intermediate-Term Bond	Fidelity® U.S. Bond Index Fund	FXNAX	17	20	21	26	29	26	26	18	20	20
Intermediate-Term Bond	Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	18	20	22	26	30	27	27	18	21	21
Long Government	Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	3	3	4	4	5	4	4	3	3	3
Inflation-Protected Bond	Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	4	4	5	6	8	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	Vanguard Federal Money Market Fund Investor Shares	VMFXX	1	1	1	1	1	20	25	50	50	50
		Equity	55	50	45	35	25	15	10	5	0	0
		Fixed Income	44	49	54	64	74	65	65	45	50	50
		Cash	1	1	1	1	1	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 3/31/2021.

Conservative Year of Enrollment 2038 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	0.78	NA	NA
Net of All Fees Return	0.73	NA	NA
Blended Benchmark	0.88	NA	NA
Excess Return	-0.15	NA	NA

Conservative Year of Enrollment 2036 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	0.39	27.07	12.72
Net of All Fees Return	0.33	26.80	12.48
Blended Benchmark	0.46	26.67	12.14
Excess Return	-0.13	0.13	0.34

Conservative Year of Enrollment 2034 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-0.10	23.92	12.46
Net of All Fees Return	-0.15	23.65	12.21
Blended Benchmark	-0.05	23.79	11.70
Excess Return	-0.10	-0.14	0.51

Conservative Year of Enrollment 2032 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-0.93	18.65	11.82
Net of All Fees Return	-0.99	18.40	11.57
Blended Benchmark	-0.85	18.51	10.97
Excess Return	-0.14	-0.11	0.60

Conservative Year of Enrollment 2030 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-1.85	13.60	10.92
Net of All Fees Return	-1.90	13.35	10.68
Blended Benchmark	-1.73	13.42	10.10
Excess Return	-0.17	-0.07	0.58

Conservative Year of Enrollment 2028 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-1.88	8.95	9.12
Net of All Fees Return	-1.93	8.72	8.88
Blended Benchmark	-1.82	8.71	8.26
Excess Return	-0.11	0.01	0.62

Conservative Year of Enrollment 2026 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-2.14	6.22	7.88
Net of All Fees Return	-2.19	5.98	7.64
Blended Benchmark	-2.07	6.09	7.11
Excess Return	-0.12	-0.11	0.53

Conservative Year of Enrollment 2024 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-1.61	4.33	6.38
Net of All Fees Return	-1.66	4.10	6.14
Blended Benchmark	-1.54	4.18	5.88
Excess Return	-0.12	-0.08	0.26

Conservative Year of Enrollment 2022 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-2.04	1.27	4.14
Net of All Fees Return	-2.10	1.05	3.91
Blended Benchmark	-1.97	1.18	3.85
Excess Return	-0.13	-0.13	0.06

Conservative Year of Enrollment Enrolled Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-2.06	NA	NA
Net of All Fees Return	-2.11	NA	NA
Blended Benchmark	-1.97	NA	NA
Excess Return	-0.14	NA	NA

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

Performance as of 3/31/2021.

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Moderate Year of Enrollment Portfolio Review

Moderate Year of Enrollment Portfolio Underlying Fund Allocations

Asset Category	Fund	Ticker	YoE 2038	YoE 2036	YoE 2034	YoE 2032	YoE 2030	YoE 2028	YoE 2026	YoE 2024	YoE 2022	Enrolled
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	Vanguard Federal Money Market Fund Investor Shares	VMFXX	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 3/31/2021.

Moderate Year of Enrollment 2038 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	4.06	NA	NA
Net of All Fees Return	4.01	NA	NA
Blended Benchmark	4.01	NA	NA
Excess Return	0.00	NA	NA

Moderate Year of Enrollment 2036 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	3.78	48.70	15.44
Net of All Fees Return	3.72	48.37	15.19
Blended Benchmark	4.01	49.27	15.33
Excess Return	-0.29	-0.90	-0.14

Moderate Year of Enrollment 2034 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	2.92	45.38	13.42
Net of All Fees Return	2.86	45.07	13.17
Blended Benchmark	3.06	45.10	13.13
Excess Return	-0.20	-0.03	0.04

Moderate Year of Enrollment 2032 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	2.02	39.38	13.04
Net of All Fees Return	1.96	39.07	12.80
Blended Benchmark	2.11	38.98	12.58
Excess Return	-0.15	0.09	0.22

Moderate Year of Enrollment 2030 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	1.31	33.75	13.05
Net of All Fees Return	1.25	33.46	12.80
Blended Benchmark	1.32	33.18	12.04
Excess Return	-0.07	0.28	0.76

Moderate Year of Enrollment 2028 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	0.42	28.16	12.47
Net of All Fees Return	0.37	27.88	12.23
Blended Benchmark	0.46	27.60	11.40
Excess Return	-0.09	0.28	0.83

Moderate Year of Enrollment 2026 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-0.75	21.14	10.80
Net of All Fees Return	-0.80	20.87	10.55
Blended Benchmark	-0.74	20.37	9.36
Excess Return	-0.06	0.50	1.19

Moderate Year of Enrollment 2024 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-1.90	13.33	9.24
Net of All Fees Return	-1.95	13.09	9.00
Blended Benchmark	-1.84	12.64	7.91
Excess Return	-0.11	0.45	1.09

Moderate Year of Enrollment 2022 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-2.39	7.43	8.21
Net of All Fees Return	-2.44	7.20	7.98
Blended Benchmark	-2.30	6.98	7.24
Excess Return	-0.14	0.22	0.74

Moderate Year of Enrollment Enrolled Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-2.88	NA	NA
Net of All Fees Return	-2.94	NA	NA
Blended Benchmark	-2.78	NA	NA
Excess Return	-0.16	NA	NA

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

Performance as of 3/31/2021.

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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 2038	YoE 2036	YoE 2034	YoE 2032	YoE 2030	YoE 2028	YoE 2026	YoE 2024	YoE 2022	Enrolled
U.S. Large Cap Blend	Fidelity® Total Market Index Fund	FSKAX	25	25	24	24	22	21	18	13	8	3
U.S. Large Cap Blend	Schwab Total Stock Market Index Fund®	SWTSX	24	24	23	23	22	21	18	13	7	2
Foreign Large Blend	Fidelity® International Index Fund	FSPSX	35	35	33	33	31	29	26	18	11	4
Diversified Emerging Mkts	Fidelity® Emerging Markets Index Fund	FPADX	11	11	10	10	10	9	8	6	4	1
Intermediate-Term Bond	Fidelity® U.S. Bond Index Fund	FXNAX	1	1	3	3	3	6	10	20	28	24
Intermediate-Term Bond	Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	1	1	2	2	4	6	10	20	28	24
Long Government	Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	1	1	1	1	2	2	3	3	4	4
Inflation-Protected Bond	Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	0	0	2	2	3	3	4	4	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	Vanguard Federal Money Market Fund Investor Shares	VMFXX	1	1	1	1	1	1	1	1	1	30
		Equity	95	95	90	90	85	80	70	50	30	10
		Fixed Income	4	4	9	9	14	19	29	49	69	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 3/31/2021.

Growth Year of Enrollment 2038 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	4.43	NA	NA
Net of All Fees Return	4.38	NA	NA
Blended Benchmark	4.37	NA	NA
Excess Return	0.01	NA	NA

Growth Year of Enrollment 2036 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	4.22	51.77	15.13
Net of All Fees Return	4.16	51.44	14.88
Blended Benchmark	4.37	52.21	15.51
Excess Return	-0.21	-0.77	-0.63

Growth Year of Enrollment 2034 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	3.87	50.31	14.66
Net of All Fees Return	3.82	49.98	14.41
Blended Benchmark	4.01	50.26	14.42
Excess Return	-0.19	-0.28	-0.01

Growth Year of Enrollment 2032 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	3.96	49.11	15.26
Net of All Fees Return	3.90	48.78	15.01
Blended Benchmark	4.01	49.27	15.33
Excess Return	-0.11	-0.49	-0.32

Growth Year of Enrollment 2030 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	3.47	47.57	14.66
Net of All Fees Return	3.42	47.25	14.41
Blended Benchmark	3.46	47.15	14.28
Excess Return	-0.04	0.10	0.13

Growth Year of Enrollment 2028 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	3.08	44.69	14.58
Net of All Fees Return	3.02	44.38	14.33
Blended Benchmark	3.06	44.15	14.01
Excess Return	-0.04	0.23	0.32

Growth Year of Enrollment 2026 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	2.15	39.69	13.41
Net of All Fees Return	2.10	39.39	13.17
Blended Benchmark	2.11	38.98	12.58
Excess Return	-0.01	0.41	0.59

Growth Year of Enrollment 2024 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	0.44	28.13	12.26
Net of All Fees Return	0.39	27.85	12.02
Blended Benchmark	0.46	27.52	11.31
Excess Return	-0.07	0.33	0.71

Growth Year of Enrollment 2022 Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-1.32	17.34	10.90
Net of All Fees Return	-1.37	17.08	10.66
Blended Benchmark	-1.25	16.86	9.89
Excess Return	-0.12	0.22	0.77

Growth Year of Enrollment Enrolled Portfolio	Q1 2021	1 Year	2020
Gross of Fees Return	-1.99	NA	NA
Net of All Fees Return	-2.04	NA	NA
Blended Benchmark	-1.90	NA	NA
Excess Return	-0.14	NA	NA

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

Performance as of 3/31/2021.

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 (FMR). FMR 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*

FIAM is large and well-diversified, but organizational complexity and cultural issues dampen our opinion of the firm. 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 FMR. 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***

Fidelity® Emerging Markets Index Fund's tested portfolio-management team and asset-management firm oversight drive this share class' Morningstar Quantitative Rating of Bronze. The share class maintains a sizable cost advantage over competitors, priced within the lowest fee quintile among peers.

Transitioning to the fund's three rated pillars, Parent, Process, and People, the team managing the passive product drives the strategy's Above Average People Pillar rating, following a recent upgrade from Average. The strategy's asset-management firm provides topnotch support, earning the fund an Above Average Parent Pillar rating. This support is evidenced through a favorable lineup success ratio and overall attractive fees. Finally, the investment philosophy underpinning this strategy does not differentiate it much from industry peers, earning it an Average Process Pillar rating. Independent of the rating, analysis of the fund's portfolio shows it has maintained an underweight position in quality exposure and an overweight in yield exposure compared with category peers. Low quality exposure is attributed to stocks with higher financial leverage and lower profitability. And a high yield exposure is rooted in holding high dividend-paying or buyback stocks.

Performance***

This strategy's Institutional share class' long-term performance is mixed depending on the yardstick used. It has provided better returns compared with peers, but similar returns compared with the category benchmark. This share class led its average peer by an annualized excess return of 23 basis points over a nine-year period. However, it had a mixed track record compared with the category benchmark, MSCI Emerging Markets Index, where it outshone the category benchmark by 35 basis points annualized over a seven-year period and performed in line with the category benchmark over the nine-year period.

When adjusting for risk, the fund is not shown in a favorable light. The share class had a lower Sharpe ratio, a measure of risk-adjusted returns, than the index over the trailing five-year period. These subpar risk-adjusted results have not resulted in the drawback of a bumpier ride for investors. This strategy took on similar risk as the benchmark, as measured by standard deviation. However, the share class proved itself effective by generating positive alpha, over the same five-year period, against the category group index: a benchmark that encapsulates the performance of the broader asset class.

Price***

It is imperative to evaluate fees, which can eat away at expected returns. This fund is in the cheapest quintile of its Morningstar Category. Its low fee, in conjunction with the fund’s People, Process, and Parent Pillars result in a judgment that this share class has high potential to deliver positive alpha against the lesser of its median category peer or the category benchmark, explaining its Morningstar Quantitative Rating of Bronze.

Process: Average***

The investment strategy as stated in the fund's prospectus is:

The investment seeks to provide investment results that correspond to the total return of emerging stock markets. The fund normally invests at least 80% of the fund's assets in securities included in the MSCI Emerging Markets Index and in depository receipts representing securities included in the index. The adviser uses statistical sampling techniques based on such factors as capitalization, industry exposures, dividend yield, price/earnings (P/E) ratio, price/book (P/B) ratio, earnings growth, country weightings, and the effect of foreign taxes to attempt to replicate the returns of the index. Fidelity® Emerging Markets Index Fund earns an Average Process Pillar rating.

The portfolio is positioned across 1,455 holdings and assets are more dispersed than peers in the category. In particular, 32.8% of the strategy's assets are concentrated in the top 10 fund holdings, compared to the category’s 36.4% average. And in closing, in terms of portfolio turnover, looking at year-over-year movements, 10% of the fund's holdings have changed, whether through increasing, decreasing, or changing a position.

People: Above Average***

Fidelity’s team is strong compared with others in the industry, resulting in an Above Average People Pillar rating. There’s a deep bench of five managers listed on the fund. The team is adequately equipped with an average of 10 years of management experience. Together, they manage a total of 54 funds, with a Silver average combined Morningstar Analyst and Quantitative Rating, demonstrating their potential to deliver positive alpha relative to the category median in aggregate.

* Source: BNY Mellon Manager Research Group, as of July 2019
** Source: Fidelity (FMR, LLC), as of 3/31/2021
*** Source: Morningstar, as of 3/22/2021

Fidelity® Emerging Markets Idx (USD)

Morningstar Quantitative Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Bronze [Q] 02-28-2021	★★★ 897 US Fund Diversified Emerging Mkts	MSCI ACWI Ex USA NR USD	MSCI EM NR USD	US Fund Diversified Emerging Mkts

Performance 03-31-2021

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2019	9.75	0.86	-4.45	11.82	18.26
2020	-23.86	18.70	9.67	18.80	17.82
2021	2.83	—	—	—	2.83

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	59.12	6.18	12.07	—	4.96
Std 03-31-2021	59.12	—	12.07	—	4.96
Total Return	59.12	6.18	12.07	—	4.96
+/- Std Index	9.71	-0.33	2.31	—	—
+/- Cat Index	0.73	-0.30	0.00	—	—
% Rank Cat	60	46	38	—	
No. in Cat	800	697	596	—	

	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.

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**

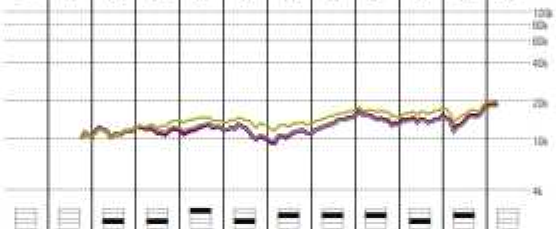
Risk and Return Profile

	3 Yr 697 funds	5 Yr 596 funds	10 Yr 292 funds
Morningstar Rating™	3★	3★	—
Morningstar Risk	-Avg	-Avg	—
Morningstar Return	Avg	Avg	—

	3 Yr	5 Yr	10 Yr
Standard Deviation	19.21	16.49	—
Mean	6.18	12.07	—
Sharpe Ratio	0.34	0.71	—

MPT Statistics	Standard Index	Best Fit Index MSCI EM NR USD
Alpha	-0.02	-0.25
Beta	1.00	1.00
R-Squared	84.39	99.11
12-Month Yield		—
Potential Cap Gains Exp		7.11%

Investment Style
Equity
Stocks %



Growth of $10,000
— Fidelity® Emerging Markets Idx
18,550
— Category Average
18,031
— Standard Index
20,106

Performance Quartile (within category)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	03-21	History
	—	99	98	94	93	99	99	99	94	98	96	92	Equity Stocks %
	—	8.90	10.25	9.56	9.42	7.73	8.46	11.42	9.54	10.98	12.74	13.10	NAV/Price
	—	—	17.62	-4.69	0.59	-15.84	11.26	37.65	-14.63	18.26	17.82	2.83	Total Return %
	—	—	0.79	-19.98	4.46	-10.18	6.77	10.45	-0.43	-3.25	7.17	-0.67	+/- Standard Index
	—	—	-0.60	-2.09	2.78	-0.92	0.07	-0.36	-0.05	-0.17	-0.48	0.54	+/- Category Index
	—	—	60	74	17	65	30	34	35	57	43	—	% Rank Cat
	—	—	552	614	749	940	813	806	836	835	796	820	No. of Funds in Cat

Portfolio Analysis 02-28-2021

Asset Allocation %	Net %	Long %	Short %
Cash	8.19	8.19	0.00
US Stocks	0.20	0.20	0.00
Non-US Stocks	91.57	91.57	0.00
Bonds	0.00	0.00	0.00
Other/Not Clsfd	0.04	0.04	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	19.1	0.92	0.90
P/C Ratio TTM	11.1	1.04	0.88
P/B Ratio TTM	2.1	1.10	0.77
Geo Avg Mkt Cap $mil	55856	1.23	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	7.0	0.73
Greater Europe	12.1	0.28
Greater Asia	81.0	1.71

Share Chg since 01-2021	Share Amount	Holdings: 1,429 Total Stocks, 1 Total Fixed-Income, 10% Turnover Ratio	Net Assets %
☼	6,655	MSCI Emerging Markets Index Future	8.20
⊕	412 mil	Fidelity Revere Str Tr	7.60
	14 mil	Taiwan Semiconductor Manufacturing	5.54
	3 mil	Tencent Holdings Ltd	5.15
	1 mil	Alibaba Group Holding Ltd ADR	4.64
	3 mil	Samsung Electronics Co Ltd	3.59
	2 mil	Meituan	1.62
	243,398	Naspers Ltd Class N	1.06
	480,046	JD.com Inc ADR	0.84
	2 mil	Reliance Industries Ltd Shs Demate	0.83
	152,380	Baidu Inc ADR	0.80
	53 mil	China Construction Bank Corp Class	0.79
	3 mil	Ping An Insurance (Group) Co. of C	0.77
	305,038	SK Hynix Inc	0.71
	212,547	Pinduoduo Inc ADR	0.67

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**43.9**	**1.05**
Basic Materials	7.7	0.94
Consumer Cyclical	16.5	1.36
Financial Services	17.5	0.93
Real Estate	2.3	0.84
Sensitive	**43.7**	**1.17**
Communication Services	13.7	1.72
Energy	4.7	1.01
Industrials	4.0	0.35
Technology	21.3	1.62
Defensive	**12.4**	**0.59**
Consumer Defensive	6.0	0.70
Healthcare	4.5	0.49
Utilities	1.9	0.60

Operations

Family:	Fidelity Investments	Base Currency:	USD	Purchase Constraints:	A
Manager:	Multiple	Ticker:	FPADX	Incept:	09-08-2011
Tenure:	9.6 Years	ISIN:	US3161463316	Type:	MF
Objective:	Diversified Emerging Markets	Minimum Initial Purchase:	$0	Total Assets:	$5,188.42 mil

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 03-31-2021

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 %**
Fidelity® Emerging Markets Idx	—	—	59.12	12.07	—	4.96	09-08-2011	NA	NA	0.08	0.08	NA
BBgBarc US Agg Bond TR USD			0.71	3.10	3.44	—	01-03-1980					
MSCI ACWI Ex USA NR USD			49.41	9.76	4.93	—	01-01-2001					
MSCI EAFE NR USD			44.57	8.85	5.52	—	03-31-1986					
MSCI EM NR USD			58.39	12.07	3.65	—	01-01-2001					
S&P 500 TR USD			56.35	16.29	13.91	—	01-30-1970					

Annualized returns 03-31-2021

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			**0.10**	**1.16**	**0.61**	**—**	**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	58.13	11.31	—	4.23	09-08-2011	34.97	9.31	—	3.58

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

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.)

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

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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.

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.

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 perfomance 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

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 from the following proxy: iShares MSCI ACWI 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.

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 (FMR). FMR 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*

FIAM is large and well-diversified, but organizational complexity and cultural issues dampen our opinion of the firm. 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 FMR. 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 Index, 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 and 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 Morningstar's foreign large-blend category because it excludes emerging-markets stocks. But these account for about 10% of a typical peer's portfolio, so ignoring them shouldn't have a huge impact on the fund's category-relative performance.

The fund's low expense ratio has been an advantage over the category average. It beat a typical competitor by 77 basis points annually from its launch in September 2011 through November 2020, with comparable risk. Fees tend to have a big impact on long-term category-relative performance, so the fund's ultralow 0.04% expense ratio should continue to provide an edge.

Performance***

The fund's low fee helped it outperform the category average. But its margin of outperformance was not large enough to land among the best-performing funds in the category. From its launch in September 2011 through November 2020, the portfolio returned 77 basis points more than a typical competitor in the foreign large-blend Morningstar Category. Nearly 40% of its competitors turned in better performance over that period. Many of these better-performing strategies 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.

The fund's composition looks a lot like the category average, and it remains fully invested in order to tightly track its target index. That means it tends to post average performance during volatile periods like the coronavirus sell-off in the first quarter of 2020. The fund's 23% decline roughly equaled the loss incurred by the category norm over those three months.

Stocks listed in Japan and the United Kingdom collectively account for about 40% of this portfolio. Consequently, the performance of these two markets can have an outsize effect on the portfolio's performance. Over the past decade, Japanese stocks have been a tailwind while those from the United Kingdom were a drag.

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 representing most of the overseas market while diversifying stock and sector-specific risks in a cost-effective way.

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 33% of the fund, while Japan and the United Kingdom make up an additional 26% and 13%, 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 the foreign developed-markets universe. 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, well-supported, and capable of providing solid index-tracking. 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, 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. Manav Verma was also removed as a named manager in July 2019.

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 Gyllenhaal have only been at Geode for a few years, but they previously worked as portfolio managers for SSGA and Hartford Investment Management, respectively.

The managers enjoy the support of a separate team of traders and operational specialists, who help prepare for upcoming index rebalances. While the managers don't have any money invested in this fund, their compensation is tied to index-tracking performance, which helps align their interests with investors'.

* Source: BNY Mellon Manager Research Group, as of July 2019
** Source: Fidelity (FMR, LLC), as of 3/31/2021
*** Source: Morningstar, Inc., as of 12/9/2020

Fidelity® International Index (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Silver 12-09-2020	★★★ 654 US Fund Foreign Large Blend	MSCI ACWI Ex USA NR USD	MSCI ACWI Ex USA NR USD	US Fund Foreign Large Blend

Performance 03-31-2021

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2019	10.01	3.70	-0.92	7.93	22.00
2020	-23.02	15.78	4.78	15.83	8.17
2021	3.46	—	—	—	3.46

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	45.39	6.02	9.05	—	7.58
Std 03-31-2021	45.39	—	9.05	—	7.58
Total Return	45.39	6.02	9.05	5.67	7.58
+/- Std Index	-4.02	-0.49	-0.71	0.75	—
+/- Cat Index	-4.02	-0.49	-0.71	0.75	—
% Rank Cat	63	53	47	35	
No. in Cat	751	654	563	370	

	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.

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 654 funds	5 Yr 563 funds	10 Yr 370 funds
Morningstar Rating™	3★	3★	4☆
Morningstar Risk	Avg	Avg	*Avg*
Morningstar Return	Avg	Avg	*Avg*

	3 Yr	5 Yr	10 Yr
Standard Deviation	17.72	14.63	*14.93*
Mean	6.02	9.05	*5.67*
Sharpe Ratio	0.34	0.59	*0.40*

MPT Statistics	Standard Index	Best Fit Index MSCI EAFE NR USD
Alpha	-0.37	0.03
Beta	0.99	1.00
R-Squared	96.86	99.31
12-Month Yield		—
Potential Cap Gains Exp		-3.21%

Investment Style	96	96	98	97	96	96	98	99	99	97	98	97

Investment Style
Equity
Stocks %

Growth of $10,000
- Fidelity® International Index 19,327
- Category Average 18,494
- Standard Index 18,593

Performance Quartile (within category)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	03-21	History
—	29.75	34.28	40.67	37.22	35.93	35.32	43.18	36.35	42.96	45.61	47.19	NAV/Price
7.70	*-12.15*	18.85	21.87	-5.31	-0.73	1.34	25.38	-13.52	22.00	8.17	3.46	Total Return %
-2.45	*1.56*	2.02	6.59	-1.45	4.93	-3.15	-1.81	0.57	0.49	-2.48	-0.03	+/- Standard Index
-2.45	*1.56*	2.02	6.58	-1.45	4.93	-3.15	-1.83	0.67	0.49	-2.48	-0.03	+/- Category Index
—	—	36	25	49	41	40	47	29	43	55	—	% Rank Cat
—	—	786	791	750	788	762	756	741	732	785	782	No. of Funds in Cat

Portfolio Analysis 02-28-2021

Asset Allocation %	Net %	Long %	Short %
Cash	3.05	3.05	0.00
US Stocks	0.79	0.79	0.00
Non-US Stocks	96.07	96.07	0.00
Bonds	0.00	0.00	0.00
Other/Not Clsfd	0.09	0.09	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	21.3	1.03	0.98
P/C Ratio TTM	10.2	0.96	0.90
P/B Ratio TTM	1.7	0.92	0.84
Geo Avg Mkt Cap $mil	42666	0.94	0.83

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	0.9	0.10
Greater Europe	61.8	1.44
Greater Asia	37.3	0.79

Share Chg since 01-2021	Share Amount	Holdings: 882 Total Stocks, 0 Total Fixed-Income, 2% Turnover Ratio	Net Assets %
⊕	10,540	MSCI EAFE Index Future Mar 21	3.42
⊕	941 mil	Fidelity Revere Str Tr	2.82
⊕	6 mil	Nestle SA	1.78
⊕	832,495	ASML Holding NV	1.42
⊕	1 mil	Roche Holding AG	1.35
⊕	4 mil	Novartis AG	1.12
⊕	542,988	LVMH Moet Hennessy Louis Vuitton SE	1.03
⊕	4 mil	Toyota Motor Corp	0.92
⊕	24 mil	AIA Group Ltd	0.89
⊕	3 mil	SoftBank Group Corp	0.86
⊕	5 mil	Unilever PLC	0.80
⊕	2 mil	Sony Corp	0.78
⊕	2 mil	SAP SE	0.76
⊕	3 mil	AstraZeneca PLC	0.74
⊕	3 mil	Novo Nordisk A/S B	0.72

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**39.5**	**0.94**
Basic Materials	8.0	0.98
Consumer Cyclical	11.0	0.92
Financial Services	17.4	0.92
Real Estate	3.1	1.15
Sensitive	**34.5**	**0.93**
Communication Services	6.1	0.77
Energy	3.7	0.81
Industrials	15.2	1.32
Technology	9.5	0.72
Defensive	**26.0**	**1.24**
Consumer Defensive	9.8	1.15
Healthcare	12.5	1.38
Utilities	3.6	1.14

Operations

Family:	Fidelity Investments	Base Currency:	USD	Purchase Constraints:	A
Manager:	Multiple	Ticker:	FSPSX	Incept:	09-08-2011
Tenure:	12.3 Years	ISIN:	US3159117270	Type:	MF
Objective:	Foreign Stock	Minimum Initial Purchase:	$0	Total Assets:	$33,581.87 mil

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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 03-31-2021

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 %**
Fidelity® International Index	—	—	45.39	9.05	—	7.58	09-08-2011	**NA**	**NA**	**0.04**	**0.04**	**NA**
BBgBarc US Agg Bond TR USD			**0.71**	**3.10**	**3.44**	—	**01-03-1980**					
MSCI ACWI Ex USA NR USD			**49.41**	**9.76**	**4.93**	—	**01-01-2001**					
MSCI EAFE NR USD			**44.57**	**8.85**	**5.52**	—	**03-31-1986**					
S&P 500 TR USD			**56.35**	**16.29**	**13.91**	—	**01-30-1970**					
USTREAS T-Bill Auction Ave 3 Mon			**0.10**	**1.16**	**0.61**	—	**02-28-1941**					

Annualized returns 03-31-2021

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	44.29	8.15	—	6.56	09-08-2011	26.83	6.10	—	5.70

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

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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.)

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

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.

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.

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 perfomance 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

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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 from the following proxy: iShares MSCI ACWI 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.

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 (FMR). FMR 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*

FIAM is large and well-diversified, but organizational complexity and cultural issues dampen our opinion of the firm. 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 FMR. 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***

Fidelity Total Market Index provides well-diversified, low-turnover exposure to the broad U.S. stock market. Its competitive expense ratio provides a durable competitive advantage over its Morningstar Category peers. These factors earn it a Morningstar Analyst Rating of Gold.

The fund tracks the Dow Jones U.S. Total Stock Market Index, which captures the entire investable U.S. equity universe. The index weights stocks that meet the minimum free-float and liquidity criteria by market capitalization, tilting the portfolio toward large caps. Its small- and micro-cap exposures, though not substantial, can provide a performance edge over category peers when smaller stocks rally.

Constituents are weighed by their float-adjusted market cap, which is an efficient sizing approach. The large-cap market enjoys a high level of liquidity and visibility, allowing new information to be quickly incorporated into prices. Market-cap-weighting leverages this collective wisdom to size positions, effectively diversifying risk. Thanks to the index's wide reach and weighting scheme, the resulting portfolio provides an accurate representation of the investment opportunity set in the U.S. market.

However, market-cap-weighting can expose the index to significant stock- or sector-level concentration during the market's intermittent manic episodes. This can tilt the portfolio toward richly valued names or sectors, as was the case at the height of the technology bubble. Nonetheless, in the long run, the benefits of broad diversification, low turnover, and a low fee outweigh these drawbacks.

Performance***

Since its inception in 2011, the fund has outperformed the category average by 2.27 percentage points annualized. Both its total and risk-adjusted returns ranked in the category's top quartile over the trailing one-, three- and five-year periods ended February 2021. Most of this outperformance can be attributed to its low cash drag and competitive expense ratio.

While the portfolio tends to be more volatile than the category average, it is often able to better capitalize when the market rallies. Over the trailing 10 years ended February 2021, it captured 98% of the category average's downside and 107% of its upside. During the early 2020 COVID-19 shock from Feb. 19 to March 23, the fund initially lagged the category average by 1.1 percentage points. It bounced back quickly, outpacing the category average by 11.2 percentage points from the market's late-March 2020 low through February 2021.

Over the trailing one-, three-, and five-year periods ended February 2021, the fund trailed the Dow Jones U.S. Total Stock Market Index by an amount approximating its annual 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 tracks the Dow Jones U.S. Total Stock Market Index, which captures virtually the entire investable market cap of the U.S. stock market. Market-cap-weighting results in a low-turnover portfolio. These features earn the fund a High Process Pillar rating.

The Dow Jones U.S. Total Stock Market Index casts a wide net. It includes all investable U.S. stocks, providing comprehensive market coverage. To be eligible for inclusion, stocks must have at least 10% of their shares publicly available and they must pass a minimum liquidity requirement. This ensures smaller constituents are sufficiently liquid to curb trading costs. As it aims to represent the entire market with no count-based or market-cap limit, the index doesn't have to abruptly exit or take on sizable positions at reconstitution. As a result, portfolio turnover is minimal.

While the fund employs representative sampling to track the index's portfolio given its smaller asset base, it currently holds 3,530 of the 3,800-plus represented in its benchmark. Its sector and style composition are identical to the index. The portfolio managers reinvest dividends and use derivatives to equitize cash to help keep pace with the benchmark. The fund has historically used securities lending to generate additional income to offset expenses.

Market-cap-weighting allows the fund to harness the market's collective view about each stock's relative value and keeps turnover low. This tilts the portfolio toward larger companies, landing it in the large-blend category. However, during periods where smaller stocks outperform, the portfolio can also benefit from its small-cap exposure, which as of January 2021 stood at 8.77%. While this portion of the market can be more volatile, its weighting scheme will move the fund away from companies with declining fundamentals. Larger companies, which tend to have established market positions, are still the main driver of its performance. As of January 2021, stocks constituting more than 77% of the portfolio had a narrow or wide economic moat.

Over the long term, market-cap-weighting has been a winning strategy. But investors' enthusiasm for a particular stock or sector can make the portfolio top-heavy as it tilts toward recent winners over shorter time frames. This has been the case with technology stocks in recent years. The portfolio's top 10 holdings represented approximately 22.7% of its assets as of January 2021, higher than its historical average level but still much lower than the category average.

The fund's sector and style composition is still very similar to the category average. As of January 2021, the fund was slightly overweight technology stocks and modestly underweight industrials and consumer staples.

People: Above Average***

The strategy is managed by a team from Geode Capital. The team boasts a deep bench of experienced index portfolio management specialists and well-equipped supporting personnel. The firm has made significant strides in building its pool of talent and shoring up its processes in recent years, warranting a People Pillar rating upgrade to Above Average from Average.

Geode Capital is Fidelity's subadvisor for a number of index funds, including this one. Deane Gyllenhaal, Louis Bottari, Payal Kapoor Gupta, Peter Matthew, and Robert Regan are the named managers on this portfolio. Bottari is the longest-tenured manager, having served since January 2009. Matthew joined three years later in 2012, while Gyllenhaal came to Geode in 2014 from Hartford Investment Management. Regan and Gupta joined in 2016 and 2019, respectively, both having previously worked at SSGA.

Geode takes a team approach to managing index funds, assigning primary and secondary managers to minimize impact of personnel turnover. Index analysts prepare managers for index rebalancing and corporate actions, freeing up managers' time for risk management. Most of their workflow is automated. Managers primarily review and approve trades before and after handing them over to a dedicated trading desk. They can use discretion during index changes when there's opportunity to add value, while keeping a close eye on tracking performance.

* Source: BNY Mellon Manager Research Group, as of July 2019
** Source: Fidelity (FMR, LLC), as of 3/31/2021
*** Source: Morningstar, Inc., as of 3/10/2021

Release date 03-31-2021 | 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 03-15-2021	★★★★ 1,225 US Fund Large Blend	S&P 500 TR USD	Russell 1000 TR USD	US Fund Large Blend

Performance 03-31-2021

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2019	14.04	4.08	1.15	9.05	30.92
2020	-20.97	22.09	9.08	14.76	20.78
2021	6.44	—	—	—	6.44

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	62.68	17.06	16.62	—	15.79
Std 03-31-2021	62.68	—	16.62	—	15.79
Total Return	62.68	17.06	16.62	*13.76*	15.79
+/- Std Index	6.33	0.28	0.33	*-0.16*	—
+/- Cat Index	2.10	-0.25	-0.04	*-0.22*	—
% Rank Cat	21	19	13	*18*	
No. in Cat	1351	1225	1068	909	

	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.

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**

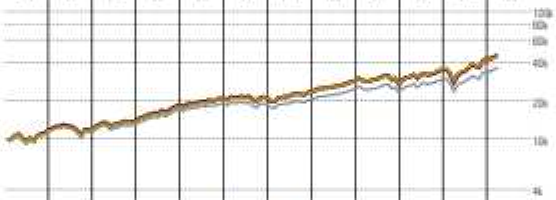
Risk and Return Profile

	3 Yr 1225 funds	5 Yr 1068 funds	10 Yr 909 funds
Morningstar Rating™	4★	4★	4☆
Morningstar Risk	+Avg	+Avg	*Avg*
Morningstar Return	+Avg	+Avg	*+Avg*

	3 Yr	5 Yr	10 Yr
Standard Deviation	19.35	15.58	*14.17*
Mean	17.06	16.62	*13.76*
Sharpe Ratio	0.84	0.99	*0.94*

MPT Statistics	Standard Index	Best Fit Index Russell 3000 TR USD
Alpha	-0.38	-0.07
Beta	1.05	1.00
R-Squared	99.44	100.00

12-Month Yield	—
Potential Cap Gains Exp	24.71%



Investment Style

Growth of $10,000

- Fidelity® Total Market Index 45,290
- Category Average 36,395
- Standard Index 44,635

Performance Quartile (within category)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	03-21	History
Equity Stocks %	99	99	98	98	98	99	100	100	99	99	99	100	
	—	36.12	41.22	54.11	59.86	58.66	64.51	76.35	70.59	90.59	107.72	114.66	NAV/Price
	17.41	*1.07*	16.36	33.42	12.47	0.47	12.68	21.18	-5.28	30.92	20.78	6.44	Total Return %
	2.34	*-1.10*	0.36	1.04	-1.22	-0.91	0.72	-0.65	-0.90	-0.57	2.38	0.27	+/- Standard Index
	1.37	*-0.49*	-0.06	0.31	-0.77	-0.45	0.62	-0.51	-0.50	-0.51	-0.18	0.53	+/- Category Index
	—	—	28	32	38	36	19	44	44	37	20	—	% Rank Cat
	—	—	1686	1559	1568	1606	1409	1396	1402	1387	1363	1485	No. of Funds in Cat

Portfolio Analysis 02-28-2021

Asset Allocation %	Net %	Long %	Short %
Cash	0.33	0.33	0.00
US Stocks	98.56	98.56	0.00
Non-US Stocks	1.11	1.11	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	27.5	0.95	1.01
P/C Ratio TTM	15.9	0.93	0.99
P/B Ratio TTM	3.8	0.92	0.67
Geo Avg Mkt Cap $mil	96938	0.55	0.37

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	0.8	0.92
Greater Asia	0.3	1.27

Share Chg since 01-2021	Share Amount	Holdings: 3,497 Total Stocks , 0 Total Fixed-Income, 11% Turnover Ratio	Net Assets %
⊕	24 mil	Apple Inc	4.86
⊕	11 mil	Microsoft Corp	4.41
⊕	941,354	Amazon.com Inc	3.31
⊕	4 mil	Facebook Inc A	1.55
⊕	451,137	Alphabet Inc A	1.52
⊕	437,405	Alphabet Inc Class C	1.49
⊕	1 mil	Tesla Inc	1.28
⊕	3 mil	Berkshire Hathaway Inc Class B	1.17
⊕	5 mil	JPMorgan Chase & Co	1.13
⊕	4 mil	Johnson & Johnson	1.05
⊕	3 mil	Visa Inc Class A	0.90
⊕	3 mil	The Walt Disney Co	0.86
⊕	930,754	NVIDIA Corp	0.85
⊕	1 mil	UnitedHealth Group Inc	0.79
⊕	1 mil	Mastercard Inc A	0.78

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**31.8**	**1.02**
Basic Materials	2.4	1.03
Consumer Cyclical	12.0	0.98
Financial Services	13.9	0.98
Real Estate	3.4	1.38
Sensitive	**46.4**	**1.00**
Communication Services	10.6	0.97
Energy	2.7	0.95
Industrials	9.3	1.01
Technology	23.8	1.02
Defensive	**21.8**	**0.98**
Consumer Defensive	5.8	0.88
Healthcare	13.7	1.04
Utilities	2.4	0.88

Operations

Family:	Fidelity Investments	Base Currency:	USD	Purchase Constraints:	A
Manager:	Multiple	Ticker:	FSKAX	Incept:	09-08-2011
Tenure:	12.3 Years	ISIN:	US3159116934	Type:	MF
Objective:	Growth and Income	Minimum Initial Purchase:	$0	Total Assets:	$82,568.20 mil

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 03-31-2021

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 %**
Fidelity® Total Market Index	—	—	62.68	16.62	—	15.79	09-08-2011	**NA**	**NA**	**0.02**	**0.02**	**NA**
BBgBarc US Agg Bond TR USD			**0.71**	**3.10**	**3.44**	**—**	**01-03-1980**					
MSCI EAFE NR USD			**44.57**	**8.85**	**5.52**	**—**	**03-31-1986**					
Russell 1000 TR USD			**60.59**	**16.66**	**13.97**	**—**	**12-31-1978**					
Russell 3000 TR USD			**62.53**	**16.64**	**13.79**	**—**	**12-31-1978**					
S&P 500 TR USD			**56.35**	**16.29**	**13.91**	**—**	**01-30-1970**					

Annualized returns 03-31-2021

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			**0.10**	**1.16**	**0.61**	**—**	**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	61.65	15.65	—	14.95	09-08-2011	37.03	12.91	—	12.79

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

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.)

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

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.

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.

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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 perfomance 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

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

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.

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 (FMR). FMR 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*

FIAM is large and well-diversified, but organizational complexity and cultural issues dampen our opinion of the firm. 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 FMR. 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***

Fidelity US Bond Index Fund earns a Morningstar Analyst Rating of Gold.

The fund tracks the Bloomberg Barclays U.S. Aggregate Bond Index, which includes taxable, investment-grade U.S.-dollar-denominated bonds with at least one year until maturity. The index weights bonds by market value, tilting the portfolio toward the largest and most liquid issues. This approach also harnesses the market's collective wisdom about the relative value of each security, a prudent approach for the long term. That said, bond issuing activity influences the composition of this portfolio.

The U.S. government is the world's largest debt issuer. The total market value of U.S. government bonds was twice that of all U.S. corporations as of the fourth quarter of 2020. As of March 2021, the fund invested about 40% of its assets in Treasuries, while its average peer held just 20%. Additionally, a fourth of this fund's assets were invested in AAA-rated agency mortgaged backed securities, while the intermediate core bond Morningstar Category average was approximately 19%.

Nearly 71% of the fund's assets carried a AAA credit rating as of March 2021, while the corresponding figure for the average category peer was 55%. The fund's category-relative performance will largely hinge on the performance of credit risky bonds, and it should hold up well during periods when credit markets are stressed, but it will lag when they rally.

As it takes little credit risk, the primary driver of the fund's absolute performance will be interest-rate risk. As of March 2021, its average effective duration (a measure of interest-rate risk) was approximately 6.0 years, on par with category peers.

While taking less credit risk than peers can put this fund at a disadvantage when credit markets are calm, the fund's low fee should help it to keep pace. The fund's 0.025% annual fee is 37 basis points below the category median.

Performance***

The fund's performance from its inception in May 2011 through March 2021 has been solid but not spectacular. It lagged the category average by 8 basis points annually while exhibiting roughly the same amount of volatility. Ultimately, its risk-adjusted performance (measured by Sharpe ratio) ranked in the category's middle third.

The fund held up much better than category peers during the novel coronavirus-driven sell-off. Between Feb. 19 and March 23, 2020, it lost 1.10%, which ranked in the category's top quintile. The category average fell 3.13% during this same span, driven by the poor performance of the corporate bond market, which suffered amidst skyrocketing credit spreads.

The fund is likely to lag when credit risk is rewarded, as was the case in the aftermath of the coronavirus sell-off. As credit spreads narrowed between April 2020 and December 2020, the fund lagged the category average by 2 percentage points.

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 casts a wide net, replicating the composition of the U.S.-dollar-denominated investment-grade bond market and harnessing the market's collective wisdom about the relative value of each bond by weighting bonds according to their market value. This is a sound approach because it promotes low turnover, limits credit risk, is cost-effective, and because the market does a decent job pricing these bonds. The fund earns an Above Average Pillar process rating.

The fund 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.

This portfolio mimics the contours of the taxable, U.S. investment-grade bond market. Its complexion is conservative as it has significantly less exposure to credit risk than the category average. The fund's interest-rate risk is in line with the category average. Its average effective duration as of March 2021 was 6.0 years, on par with the category average.

U.S. Treasuries account for approximately 41% of this fund's assets, giving the portfolio its conservative bend. Generally, Treasuries are most richly compensated in periods with stable interest rates and a steep yield curve, but their function as safe-haven assets gives them evergreen value.

Agency mortgage-backed securities and corporate bonds account for about 25% of the fund's total assets each. Agency MBS typically provide higher yields relative to Treasuries without additional credit risk. Like Treasuries, the performance of agency MBS mostly hinges on movements in interest rates.

This portfolio does not court a lot of credit risk, but half of all investment-grade corporate issuers represented in the portfolio carry a BBB credit rating, the lowest possible investment-grade credit rating.

People: Above Average***

While Fidelity's fixed-income index portfolio management team is relatively small versus many competitors, it enjoys strong support from Fidelity's broader fixed-income portfolio management department. As a result, they enjoy the benefits of a large and experienced team that is supported by a centralized trading desk. This mitigates key-person risk. This team earns an Above Average People rating.

Brandon Bettencourt and Jay Small have been listed managers on this fund since 2014 and 2015, respectively. Prior to serving as a portfolio manager, 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 minimize index tracking error.

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

* Source: BNY Mellon Manager Research Group, as of July 2019
** Source: Fidelity (FMR, LLC), as of 3/31/2021
*** Source: Morningstar, Inc., as of 3/31/2021

Release date 03-31-2021 | Note: Portions of the analysis are based on pre-inception returns. Please read disclosure for more information.

Fidelity® US Bond Index (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Gold 03-31-2021	★★★ 385 US Fund Intermediate Core Bond	BBgBarc US Agg Bond TR USD	BBgBarc US Agg Bond TR USD	US Fund Intermediate Core Bond

Performance 03-31-2021

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2019	2.96	2.97	2.27	0.06	8.48
2020	3.66	2.77	0.43	0.75	7.80
2021	-3.48	—	—	—	-3.48

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	0.37	4.65	3.05	—	3.29
Std 03-31-2021	0.37	—	3.05	—	3.29
Total Return	0.37	4.65	3.05	*3.42*	3.29
+/- Std Index	-0.34	0.00	-0.08	*-0.02*	—
+/- Cat Index	-0.34	0.00	-0.06	*-0.02*	—
% Rank Cat	84	43	58	*46*	
No. in Cat	421	385	337	255	

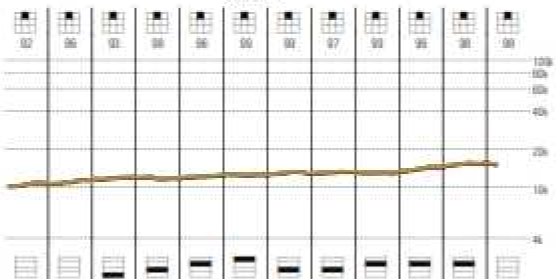
	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—

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.institutional.fidelity.com.



2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	03-21	History
—	11.76	11.89	11.36	11.73	11.49	11.49	11.59	11.28	11.91	12.45	11.86	NAV/Price
6.29	*7.79*	4.23	-2.19	5.99	0.63	2.52	3.50	0.01	8.48	7.80	-3.48	Total Return %
-0.25	*-0.06*	0.02	-0.17	0.02	0.08	-0.13	-0.04	0.00	-0.23	0.29	-0.11	+/- Standard Index
-0.25	*-0.06*	0.02	-0.17	0.02	0.08	-0.13	-0.04	0.00	-0.23	0.29	-0.11	+/- Category Index
—	—	82	69	25	18	66	57	29	49	41	—	% Rank Cat
—	—	1165	1079	1038	1042	985	986	1019	430	415	440	No. of Funds in Cat

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 385 funds	5 Yr 337 funds	10 Yr 255 funds
Morningstar Rating™	3★	3★	3☆
Morningstar Risk	-Avg	Avg	*Avg*
Morningstar Return	Avg	Avg	*Avg*

	3 Yr	5 Yr	10 Yr
Standard Deviation	3.60	3.38	*3.14*
Mean	4.65	3.05	*3.42*
Sharpe Ratio	0.92	0.57	*0.90*

MPT Statistics	Standard Index	Best Fit Index BBgBarc US Agg Bond TR USD
Alpha	-0.03	-0.03
Beta	1.01	1.01
R-Squared	99.03	99.03
12-Month Yield		—
Potential Cap Gains Exp		0.01%

Portfolio Analysis 02-28-2021

Asset Allocation %	Net %	Long %	Short %
Cash	1.33	1.33	0.00
US Stocks	0.00	0.00	0.00
Non-US Stocks	0.00	0.00	0.00
Bonds	97.89	97.91	0.02
Other/Not Clsfd	0.78	0.78	0.00
Total	100.00	100.02	0.02

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	6.05
Avg Wtd Coupon	—
Avg Wtd Price	106.74

Credit Quality Breakdown 02-28-2021	Bond %
AAA	72.62
AA	4.42
A	12.35
BBB	10.42
BB	0.16
B	0.00
Below B	0.00
NR	0.03

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

Share Chg since 01-2021	Share Amount	Holdings: 0 Total Stocks, 2,298 Total Fixed-Income, 58% Turnover Ratio	Net Assets %
⊖	1,325 mil	Fannie Mae 3% 30 Year	2.44
⊕	1,140 mil	Freddie Mac 2% 30 Year	2.00
⊕	1,038 mil	Freddie Mac 2.5% 30 Year	1.87
⊖	974 mil	Fannie Mae 3.5% 30 Year	1.81
⊖	946 mil	Ginnie Mae 3% 30 Year	1.73
⊖	846 mil	Fannie Mae 4% 30 Year	1.59
⊖	845 mil	Ginnie Mae 3.5% 30 Year	1.57
⊕	755 mil	Fannie Mae 2% 30 Year	1.32
	749 mil	United States Treasury Notes 1.5%	1.32
⊕	676 mil	Freddie Mac 3.5% 30 Year	1.26
	694 mil	United States Treasury Notes 0.12%	1.20
⊖	681 mil	Fidelity Revere Str Tr	1.18
⊖	629 mil	Freddie Mac 3% 30 Year	1.15
	611 mil	United States Treasury Notes 2.25%	1.14
⊕	602 mil	Ginnie Mae 2.5% 30 Year	1.09

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:	6.9 Years	ISIN:	US3161463563	Type:	MF
Objective:	Multisector Bond	Minimum Initial Purchase:	$0	Total Assets:	$56,444.79 mil

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 03-31-2021

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 %**
Fidelity® US Bond Index	—	—	0.37	3.05	—	3.28	05-04-2011	**NA**	**NA**	**0.03**	**0.03**	**NA**
BBgBarc US Agg Bond TR USD			**0.71**	**3.10**	**3.44**	—	**01-03-1980**					
MSCI EAFE NR USD			**44.57**	**8.85**	**5.52**	—	**03-31-1986**					
S&P 500 TR USD			**56.35**	**16.29**	**13.91**	—	**01-30-1970**					
USTREAS T-Bill Auction Ave 3 Mon			**0.10**	**1.16**	**0.61**	—	**02-28-1941**					

Annualized returns 03-31-2021

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	-0.71	1.93	—	2.15	05-04-2011	0.35	1.85	—	2.05

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

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.)

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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

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.

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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.

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 perfomance 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

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

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.

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. 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. 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. 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. CSIM is headquartered in San Francisco, CA, with operations also residing in Colorado and California. The firm has more than 600 employees, including approximately 150 investment professionals.

In 2019, the firm became part of a combined broader business unit, Schwab Asset Management Solutions (SAMS) that was established to unite asset management related services across Schwab. SAMS includes CSIM, Charles Schwab Investment Advisory, Inc. (CSIA), Asset Management Client Solutions and the Schwab Center for Financial Research. SAMS is led by Rick Wurster, who also serves as the CEO of CSIA. Effective November 1, 2019, Mr. Wurster became CEO of CSIM. All CIOs within the firm now report directly to Mr. Wurster, while performing their respective day-to-day investment functions. Jonathan de St. Paer remains in his role as the firm's President (since October 1, 2018) responsible for the overseeing the firm's product, strategy and governance groups.

Organization: Satisfactory (4 out of 5)*

In our view, CSIM has grown into one of the larger asset management companies in the US 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. Additionally, we believe the creation of SAMS has been thoughtfully constructed to strengthen client services and create efficiencies in product development across the broader organization.

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***

Schwab Total Stock Market Index fund provides well-diversified, low-turnover exposure to the broad U.S. stock market. Its competitive expense ratio provides a durable competitive advantage over its peers. The fund earns a Morningstar Analyst Rating of Gold.

The strategy tracks the Dow Jones U.S. Total Stock Market Index, which captures the entire investable U.S. equity universe. The index weights stocks that meet the minimum free float and liquidity criteria by market cap, tilting the portfolio toward large caps. Its small- and micro-cap exposures, though not substantial, can provide a performance edge over its rivals when smaller stocks rally.

Constituents are weighted by their float-adjusted market cap, which is an efficient sizing approach. The large-cap market enjoys a high level of liquidity and visibility, allowing new information to be quickly incorporated into prices. Market-cap weighting leverages the collective wisdom of all market participants to size positions, effectively diversifying risk. Thanks to the index's wide reach and weighting scheme, the resulting portfolio provides an accurate representation of the investment opportunity set in the U.S. market.

However, market-cap weighting can expose the index to significant stock- or sector-level concentration during the market's intermittent manic episodes. This can tilt the portfolio toward richly valued names or sectors, as was the case at the height of the technology bubble. Nonetheless, in the long run, the benefits of broad diversification and low turnover outweigh these drawbacks.

The fund charges a 0.03% fee, which is in the cheapest quintile of its large-blend Morningstar Category. This low fee, along with its lower than average cash allocation, are its main competitive advantages over category peers. It has outperformed the category average by 1.69 percentage points annually from its inception in 1999 through February 2021.

Performance***

From its inception in 1999 through February 2021, the fund outperformed the category average by 1.69 percentage points annualized. It ranked in the category's top quartile over the trailing one-, three-, five-, 10-, and 15-year periods ended February 2021. After accounting for risk, the portfolio still holds up well against category peers, maintaining its top-quartile ranking over all but the 15-year period. Most of this outperformance can be attributed to its low cash drag and competitive expense ratio.

While the portfolio tends to be more volatile than the category average, it is often able to better capitalize when the market rallies. Over the trailing 10 years ended February 2021, it captured 98% of the category average's downside and 107% of its upside. During the coronavirus-driven shock from Feb. 19 to March 23, 2020, the fund lagged the category average by 1.1 percentage points. But it bounced back quickly, outpacing the category average by 11.17 percentage points from the market's late-March 2020 low through February 2021.

Over the trailing one-, three-, five-, and 10-year periods ended February 2021, the fund trailed the Dow Jones U.S. Total Stock Market Index by an amount approximating its annual 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 tracks the Dow Jones U.S. Total Stock Market Index, which captures virtually the entire investable market capitalization of the U.S. stock market. Market-cap weighting results in a low-turnover portfolio. These features earn the fund a High Process Pillar rating.

The Dow Jones U.S. Total Stock Market Index casts a wide net. It includes all investable U.S. stocks, providing comprehensive market coverage. To be eligible for inclusion, companies must have at least 10% of their shares publicly available and pass a minimum liquidity requirement. This ensures smaller constituents are sufficiently liquid to curb trading costs. As it aims to represent the entire market with no count-based or market-cap limit, the index doesn't have to abruptly exit or take on sizable positions at reconstitution. As a result, portfolio turnover is minimal.

The fund employs representative sampling to track the index's portfolio. As of January 2021, it held 3,226 of the 3,800-plus constituents from the index. Its sector and style composition closely mimic the index. The portfolio managers reinvest dividends and use derivatives to equitize cash to help keep pace with the benchmark. The fund has historically used securities lending to generate additional income to offset expenses.

Market-cap weighting has kept the fund's turnover among the lowest in its peer group. It also tilts the portfolio toward larger companies. However, during periods where smaller stocks outperform, the portfolio can benefit from its small-cap exposure, which as of January 2021 stood at 8.64% of the portfolio. While this portion of the market can be more volatile, its weighting scheme will move the fund away from companies with declining fundamentals. Larger companies, which tend to have established market positions, are still the main performance driver. As of January 2021, stocks comprising more than 76% of the portfolio enjoyed a wide or narrow Morningstar Economic Moat Rating.

Over the long term, market-cap weighting has been a winning strategy. But from time to time, investors' enthusiasm for a particular stock or sector can make the portfolio top-heavy as it tilts toward recent winners. This has been the case with tech stocks in recent years. The portfolio's top 10 holdings represented approximately 22.7% of its assets as of January 2021, higher than its historical average level but still much lower than the category average.

Overall, the fund is still representative of the large-cap space as its sector and style composition is very similar to the category average. As of January 2021, the fund was slightly overweight in tech and underweight in industrials and consumer staples relative to the category average.

People: Above Average***

Schwab's equity index team has strengthened under the leadership of Chris Bliss over the past few years, earning an Above Average People rating.

Since joining Schwab from BlackRock in 2016, Bliss has strengthened the team by increasing specialization and automating more of the managers' workflow. This allows the managers to spend less time on routine tasks and helps them better identify and resolve issues that require their attention. The team has also started to look for ways to slightly improve returns by handling some corporate actions differently from the index, under tight tracking error constraints. The managers have some flexibility to take advantage of those opportunities. Schwab compensates its managers based on tracking error and compliance with risk management, which helps align their interests with investors'.

Ferian Juwono, Sabya Sinha, and Jeremy Brown assist Bliss as the other named managers on this fund. Juwono joined Schwab in 2010 from BlackRock/Barclays and currently leads the U.S. equity index team. Sinha came to the firm in 2015 from F-Squared investments. Brown joined in 2017 from ALPS, where he served as a senior analyst on the exchange-traded fund team. The named managers draw support from associate managers in managing the portfolio's day-to-day activities.

* Source: BNY Mellon Manager Research Group, as of September 2020
** Source: Charles Schwab Investment Management, Inc. (CSIM), as of 3/31/2021
*** Source: Morningstar, Inc., as of 3/15/2021

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Schwab Total Stock Market Index (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Gold 03-15-2021	★★★★ 1,225 US Fund Large Blend	S&P 500 TR USD	Russell 1000 TR USD	US Fund Large Blend

Performance 03-31-2021

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2019	14.04	4.08	1.12	9.04	30.88
2020	-20.98	22.07	9.06	14.75	20.71
2021	6.44	—	—	—	6.44

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	62.60	17.01	16.55	13.73	7.79
Std 03-31-2021	62.60	—	16.55	13.73	7.79
Total Return	62.60	17.01	16.55	13.73	7.79
+/- Std Index	6.25	0.23	0.26	-0.18	—
+/- Cat Index	2.01	-0.30	-0.11	-0.24	—
% Rank Cat	21	20	15	19	
No. in Cat	1351	1225	1068	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 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**

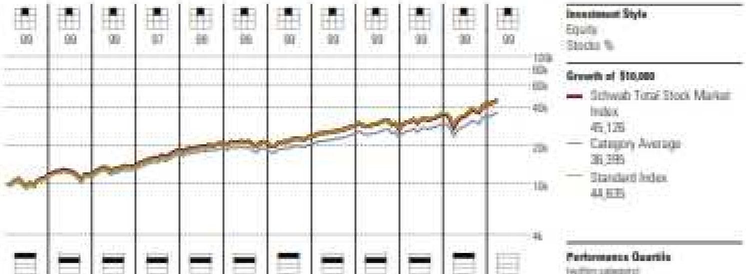
Risk and Return Profile

	3 Yr 1225 funds	5 Yr 1068 funds	10 Yr 809 funds
Morningstar Rating™	4★	4★	4★
Morningstar Risk	+Avg	+Avg	Avg
Morningstar Return	+Avg	+Avg	+Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	19.35	15.58	14.14
Mean	17.01	16.55	13.73
Sharpe Ratio	0.84	0.99	0.94

MPT Statistics	Standard Index	Best Fit Index Russell 3000 TR USD
Alpha	-0.39	-0.11
Beta	1.05	1.00
R-Squared	99.44	99.99

12-Month Yield	—
Potential Cap Gains Exp	42.30%



2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	03-21	History
22.75	22.62	25.76	33.67	36.98	36.11	39.74	47.25	43.58	55.96	66.46	70.74	NAV/Price
17.23	1.32	16.30	33.36	12.39	0.41	12.58	21.06	-5.30	30.88	20.71	6.44	Total Return %
2.16	-0.79	0.30	0.98	-1.29	-0.98	0.62	-0.77	-0.92	-0.60	2.31	0.26	+/- Standard Index
1.13	-0.18	-0.12	0.25	-0.84	-0.51	0.53	-0.63	-0.52	-0.54	-0.25	0.53	+/- Category Index
12	28	29	32	39	37	21	48	44	38	21	—	% Rank Cat
2010	1786	1686	1559	1568	1606	1409	1396	1402	1387	1363	1485	No. of Funds in Cat

Portfolio Analysis 03-31-2021

Asset Allocation % 02-28-2021	Net %	Long %	Short %
Cash	0.49	0.49	0.00
US Stocks	98.41	98.41	0.00
Non-US Stocks	1.10	1.10	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	28.3	0.98	1.04
P/C Ratio TTM	16.5	0.97	1.01
P/B Ratio TTM	3.9	0.94	0.90
Geo Avg Mkt Cap $mil	98861	0.56	0.38

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	0.8	0.97
Greater Asia	0.3	1.37

Share Chg since 02-2021	Share Amount	Holdings: 3,387 Total Stocks, 0 Total Fixed-Income, 4% Turnover Ratio	Net Assets %
⊖	6 mil	Apple Inc	4.63
⊕	3 mil	Microsoft Corp	4.27
⊕	155,537	Amazon.com Inc	3.18
⊕	873,934	Facebook Inc A	1.70
⊕	109,276	Alphabet Inc A	1.49
⊕	104,741	Alphabet Inc Class C	1.43
⊕	279,060	Tesla Inc	1.23
⊖	892,745	Berkshire Hathaway Inc Class B	1.17
⊕	1 mil	JPMorgan Chase & Co	1.12
⊕	954,501	Johnson & Johnson	1.04
⊕	618,165	Visa Inc Class A	0.86
⊕	343,121	UnitedHealth Group Inc	0.84
⊕	659,448	The Walt Disney Co	0.80
⊕	894,616	Procter & Gamble Co	0.80
⊕	225,231	NVIDIA Corp	0.80

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**32.1**	**1.03**
Basic Materials	2.5	1.06
Consumer Cyclical	12.1	0.99
Financial Services	14.0	0.98
Real Estate	3.5	1.41
Sensitive	**45.9**	**0.99**
Communication Services	10.4	0.95
Energy	2.7	0.98
Industrials	9.8	1.05
Technology	23.3	0.99
Defensive	**22.0**	**0.98**
Consumer Defensive	6.0	0.91
Healthcare	13.5	1.03
Utilities	2.5	0.94

Operations

Family:	Schwab Funds	Base Currency:	USD	Purchase Constraints:	—
Manager:	Multiple	Ticker:	SWTSX	Incept:	06-01-1999
Tenure:	8.2 Years	ISIN:	US8085097561	Type:	MF
Objective:	Growth and Income	Minimum Initial Purchase:	$0	Total Assets:	$15,801.25 mil

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 03-31-2021

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 Total Stock Market Index	—	—	62.60	16.55	13.73	7.79	06-01-1999	**NA**	**NA**	**0.03**	**0.03**	**NA**
BBgBarc US Agg Bond TR USD			**0.71**	**3.10**	**3.44**	—	**01-03-1980**					
MSCI EAFE NR USD			**44.57**	**8.85**	**5.52**	—	**03-31-1986**					
Russell 1000 TR USD			**60.59**	**16.66**	**13.97**	—	**12-31-1978**					
Russell 3000 TR USD			**62.53**	**16.64**	**13.79**	—	**12-31-1978**					
S&P 500 TR USD			**56.35**	**16.29**	**13.91**	—	**01-30-1970**					

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Annualized returns 03-31-2021

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			**0.10**	**1.16**	**0.61**	**—**	**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	61.53	15.62	12.84	7.12	06-01-1999	37.01	12.88	11.02	6.25

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

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.)

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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

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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.

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.

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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 perfomance 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

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

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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.

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. 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. 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. 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. CSIM is headquartered in San Francisco, CA, with operations also residing in Colorado and California. The firm has more than 600 employees, including approximately 150 investment professionals.

In 2019, the firm became part of a combined broader business unit, Schwab Asset Management Solutions (SAMS) that was established to unite asset management related services across Schwab. SAMS includes CSIM, Charles Schwab Investment Advisory, Inc. (CSIA), Asset Management Client Solutions and the Schwab Center for Financial Research. SAMS is led by Rick Wurster, who also serves as the CEO of CSIA. Effective November 1, 2019, Mr. Wurster became CEO of CSIM. All CIOs within the firm now report directly to Mr. Wurster, while performing their respective day-to-day investment functions. Jonathan de St. Paer remains in his role as the firm's President (since October 1, 2018) responsible for the overseeing the firm's product, strategy and governance groups.

Organization: Satisfactory*

In our view, CSIM has grown into one of the larger asset management companies in the US 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. Additionally, we believe the creation of SAMS has been thoughtfully constructed to strengthen client services and create efficiencies in product development across the broader organization.

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 composed of inflation-protected U.S. Treasury securities. 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 fund will invest at least 90% of its net assets (including, for this purpose, any borrowings for investment purposes) in securities included in the index. It may invest up to 10% of its net assets in securities not included in the index.

Summary***

Schwab® Treasury Inflation Protected Securities Index Fund's notable investment process and strong portfolio-management team underpin this share class' Morningstar Quantitative Rating of Silver. The share class maintains a sizable cost advantage over competitors, priced within the cheapest fee quintile among peers.

Transitioning to the fund's rated pillars, Process, and People, the fund's investment process garners favorable confidence. This earns it an Above Average Process Pillar rating. The fixed-income team managing the passive product drives the strategy's Above Average People Pillar rating. This firm has displayed overall attractive fees and a favorable lineup success ratio.

Performance***

This share class' long-term performance is mixed depending on its comparison point. It has provided superior returns compared with peers, but poor returns compared with the category benchmark. Over a 10-year period, this share class outpaced the category's average return by 52 basis points annualized. However, it was not able to clear the hurdle of outperforming the category index, Bloomberg Barclays U.S. Treasury Inflation-Protected Securities Index. It trailed by an annualized 19 basis points over the same period.

When adjusting for risk, this fund is not compelling. The share class failed to beat the index with a lower Sharpe ratio, a measure of risk-adjusted returns, over the trailing 10-year period. But notably, these subpar risk-adjusted results have not come with a rockier ride for investors. This strategy took on similar risk as the benchmark, as measured by standard deviation. Finally, the share class proved itself ineffective as it was unable to generate alpha, over the same 10-year period, against the category group index: a benchmark that encapsulates the performance of the broader asset class.

Price***

It is critical to evaluate expenses, as they are pulled directly out of returns. This fund is in the cheapest quintile of its Morningstar Category. Its reasonable fee, paired with the fund’s People, Process, and Parent Pillars result in a judgment that this share class is well-positioned to generate positive alpha against the lesser of its median category peer or the category benchmark, explaining its Morningstar Quantitative Rating of Silver.

Process: Above Average***

The strategy courts considerable interest-rate risk because it owns TIPS across the full maturity spectrum. As of October 2020, the fund’s average effective duration was about 8.0 years, which is about a year longer than the inflation-protected bond Morningstar Category average. Although this can help performance during periods of falling interest rates, it will likely diminish its effectiveness as an inflation hedge. Long-term interest rates are less directly influenced by changes in inflation than short-term rates.

Risk and return are highly correlated in the fixed-income market, so there is an opportunity cost associated with TIPS because their muted credit risk will likely yield low inflation-adjusted returns over the long run. Inflation expectations are baked into the prices of traditional bonds, which means that TIPS will only outperform Treasury bonds with similar maturity when actual inflation exceeds expected inflation. The rate at which inflation expectations and actual inflation meet is called the "breakeven inflation rate."

At the end of September 2020, the 10-year breakeven inflation rate is about 1.6%, which is consistent with the average rate over the trailing five years. However, this is well below the Federal Reserve’s 2.0% target inflation rate.

People: Above Average***

Schwab's passive fixed-income portfolio management team has consistently provided tight index-tracking performance. Its thoughtful process to portfolio construction and continued investment to technology have distinguished it from the pack. The team has earned an upgrade to a People Pillar rating of Above Average from Average.

Matt Hastings and Mark McKissick are the named portfolio managers for this strategy. Hasting has been a named portfolio manager for this strategy since 2010, and he leads the bond index Portfolio Management team. McKissick joined Schwab in 2016 and has been a named portfolio manager since 2017. He leads the Government team.

Schwab has a simpler fund lineup than some of its larger peers, so its fixed-income index management team is smaller. However, it makes efficient use of its resources and is well equipped to deliver cost-efficient and high-fidelity index tracking for the strategies it manages.

Schwab aligns manager compensation with investors' interests. Managers are compensated based on the one- and three-year excess returns of their fund relative to the index (where the objective is to get that figure as close to zero as possible), as well as on their risk management performance.

* Source: BNY Mellon Manager Research Group, as of September 2020
** Source: Charles Schwab Investment Management, Inc. (CSIM), as of 3/31/2021
*** Source: Morningstar, Inc., as of 3/22/2021

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Schwab Treasury Infl Protected Secs Idx (USD)

Morningstar Quantitative Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Silver [Q] 02-28-2021	★★★★ 198 US Fund Inflation-Protected Bond	BBgBarc US Agg Bond TR USD	BBgBarc US Treasury US TIPS TR USD	US Fund Inflation-Protected Bond

Performance 03-31-2021

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2019	3.20	2.87	1.31	0.77	8.38
2020	1.69	4.19	3.02	1.59	10.88
2021	-1.51	—	—	—	-1.51

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	7.39	5.58	3.77	3.25	3.98
Std 03-31-2021	7.39	—	3.77	3.25	3.98
Total Return	7.39	5.58	3.77	3.25	3.98
+/- Std Index	6.88	0.83	0.66	-0.19	—
+/- Cat Index	-0.15	-0.09	-0.09	-0.19	—
% Rank Cat	70	33	36	31	
No. in Cat	205	198	175	118	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 04-19-21	5.17	0.86

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 198 funds	5 Yr 175 funds	10 Yr 118 funds
Morningstar Rating™	4★	3★	4★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	+Avg	Avg	+Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	3.87	3.57	4.34
Mean	5.58	3.77	3.25
Sharpe Ratio	1.07	0.73	0.62

MPT Statistics	Standard Index	Best Fit Index BBgBarc US Treasury US TIPS TR USD
Alpha	1.18	-0.05
Beta	0.91	0.99
R-Squared	67.53	99.85
12-Month Yield		1.47%
Potential Cap Gains Exp		0.00%

Investment Style
Fixed-Income

Bond %	98	98	100	100	100	100	100	100	100	100	100	100

Performance Quartile (within category)

History	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	03-21
NAV/Price	10.73	11.58	12.09	10.87	10.98	10.69	10.97	11.07	10.62	11.26	12.32	12.11
Total Return %	5.82	12.80	6.58	-8.83	3.48	-1.61	4.47	2.94	-1.32	8.38	10.88	-1.51
+/- Standard Index	-0.72	4.96	2.38	-6.80	-2.49	-2.16	1.82	-0.60	-1.34	-0.34	3.37	1.88
+/- Category Index	-0.49	-0.76	-0.39	-0.22	-0.56	-0.17	-0.21	-0.06	-0.06	-0.05	-0.11	-0.04
% Rank Cat	52	25	39	52	9	30	45	36	42	30	41	—
No. of Funds in Cat	162	193	198	212	219	226	235	231	229	221	207	210

Portfolio Analysis 03-31-2021

Asset Allocation % 02-28-2021	Net %	Long %	Short %
Cash	0.06	0.06	0.00
US Stocks	0.00	0.00	0.00
Non-US Stocks	0.00	0.00	0.00
Bonds	99.94	99.94	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style

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

Avg Eff Maturity	8.05
Avg Eff Duration	7.55
Avg Wtd Coupon	0.72
Avg Wtd Price	113.05

Credit Quality Breakdown 12-31-2020	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 02-2021	Share Amount	Holdings: 0 Total Stocks , 44 Total Fixed-Income, 29% Turnover Ratio	Net Assets %
⊖	68 mil	United States Treasury Notes 0.12%	3.82
⊖	66 mil	United States Treasury Notes 0.38%	3.81
⊖	64 mil	United States Treasury Notes 0.62%	3.72
⊖	60 mil	United States Treasury Notes 0.25%	3.50
⊖	57 mil	United States Treasury Notes 0.38%	3.41
⊖	59 mil	United States Treasury Notes 0.12%	3.40
⊖	57 mil	United States Treasury Notes 0.62%	3.25
⊖	55 mil	United States Treasury Notes 0.12%	3.24
⊖	57 mil	United States Treasury Notes 0.12%	3.16
⊖	56 mil	United States Treasury Notes 0.12%	3.12
⊕	51 mil	United States Treasury Notes 0.5%	3.05
⊖	51 mil	United States Treasury Notes 0.12%	2.97
⊖	49 mil	United States Treasury Notes 0.62%	2.96
⊖	48 mil	United States Treasury Notes 0.38%	2.89
⊕	49 mil	United States Treasury Notes 0.12%	2.86

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:	03-31-2006
Tenure:	15.1 Years	ISIN:	US8085178171	Type:	MF
Objective:	Income	Minimum Initial Purchase:	$0	Total Assets:	$1,901.98 mil

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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 03-31-2021

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	—	—	7.39	3.77	3.25	3.98	03-31-2006	NA	NA	0.05	0.05	NA
BBgBarc US Agg Bond TR USD			0.71	3.10	3.44	—	01-03-1980					
BBgBarc US Treasury US TIPS TR USD			7.54	3.86	3.44	—	04-15-1998					
MSCI EAFE NR USD			44.57	8.85	5.52	—	03-31-1986					
S&P 500 TR USD			56.35	16.29	13.91	—	01-30-1970					
USTREAS T-Bill Auction Ave 3 Mon			0.10	1.16	0.61	—	02-28-1941					

Annualized returns 03-31-2021

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	6.74	2.88	2.40	2.97	03-31-2006	4.39	2.50	2.15	2.71

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

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.)

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

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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.

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.

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 perfomance 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

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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 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.

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 60% 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 68% institutional and 32% retail investors.

Headquartered in Malvern, PA, Vanguard employs over 18,000 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. Buckley is also the chairman of Vanguard's board, a role he has held since 2019.

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. The firm's average expense ratio is 0.10%. 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***

Vanguard Emerging Markets Government Bond Index Fund Institutional Shares' notable investment philosophy and parent firm drive this share class' Morningstar Quantitative Rating of Gold. The share class maintains a cost advantage over competitors, priced within the cheapest fee quintile among peers.

Transitioning to the fund's rated pillars, Process, and People, the strategy's effective investment philosophy earns it a High Process Pillar rating. This support is evidenced through a high lineup success ratio and overall attractive fees. Finally, the team managing the passive product drives the strategy's Above Average People Pillar rating.

Performance***

This strategy's Institutional share class, has had disparate fortunes, requiring closer analysis. Narrowing in on the past three-year period, it beat the category index, the JPMorgan Emerging Markets Global Diversified Bond Index, by an annualized 26 basis points, and outperformed its average peer by 1.3 percentage points. But more importantly, when widening the time horizon, the strategy was bested by the index. On a five-year basis, it lagged the index by an annualized 17 basis points.

If risk is accounted for, then this strategy is more competitive. The share class outstripped the index with a higher Sharpe ratio, a measure of risk-adjusted return, over the trailing five-year period. These strong risk-adjusted results have not come with a bumpier ride for investors. This strategy took on similar risk as the benchmark, as measured by standard deviation. Finally, the share class proved itself effective by generating positive alpha, over the same period, against the category group index: a benchmark that encapsulates the performance of the broader asset class.

Price***

Low-cost investments routinely outperform high-cost investments. Thus, assessing cost is a critical step in any investment evaluation. This fund lands in the cheapest quintile of its Morningstar Category. Its attractive expense, taken together with the fund's Pillars result in a judgment that this share class has high potential to deliver positive alpha against the lesser of its median category peer or the category benchmark, explaining its Morningstar Quantitative Rating of Gold.

Process: High***

The investment strategy as stated in fund's prospectus is:

The investment 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 market countries. The fund employs an indexing investment approach designed to track the performance of the Bloomberg Barclays USD Emerging Markets Government RIC Capped Index. All of the fund's investments will be selected through the sampling process and under normal circumstances at least 80% of the fund's assets will be invested in bonds included in the index. It is non-diversified. Vanguard Emerging Markets Government Bond Index Fund earns a High Process Pillar rating.

This strategy's 12-month yield is 4.3%, which is neck-and-neck with its average peer's. It also has a 3.5% 30-day SEC yield. The portfolio favors lower-quality credit with an average of B, compared with the category average's BB and 44% of assets are rated non-investment grade. Strategies that take on more credit risk tend to be at their best when markets are as well. This risk contributes to strong performance during bull markets for the cost of losing more on the downside.

People: Above Average***

Vanguard Emerging Markets Government Bond Index Fund’s strong team drives the fund's Above Average People Pillar rating. The fund takes a solo manager approach, with Joshua Barrickman at the helm, who brings 15 years of industry experience to the table. They manage a total of 22 funds, with a Gold average combined Morningstar Analyst and Quantitative Rating, indicating the potential to deliver positive alpha relative to the category median in aggregate. With only one manager listed on the strategy, the passive strategy is vulnerable to key-person risk.

* Source: BNY Mellon Manager Research Group, as of November 2020
** Source: Vanguard Group, Inc., as of 3/31/2021
*** Source: Morningstar, Inc., as of 3/22/2021

Release date 03-31-2021 | 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™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Gold 02-28-2021	★★★ 241 US Fund Emerging Markets Bond	BBgBarc US Agg Bond TR USD	JPM EMBI Global Diversified TR USD	US Fund Emerging Markets Bond

Performance 03-31-2021

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2019	5.60	4.14	1.48	2.18	14.02
2020	-12.61	11.63	2.55	5.77	5.82
2021	-5.14	—	—	—	-5.14

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	14.87	4.22	4.85	—	4.93
Std 03-31-2021	14.87	—	4.85	—	4.93
Total Return	14.87	4.22	4.85	—	4.93
+/- Std Index	14.16	-0.43	1.75	—	—
+/- Cat Index	-1.13	0.18	-0.20	—	—
% Rank Cat	85	28	54	—	
No. in Cat	271	241	192	—	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 03-31-21	3.89	3.89

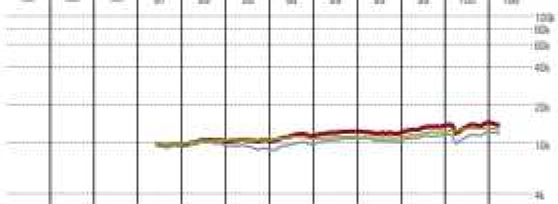
Performance Disclosure

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.

Investment Style: Fixed-Income, Bond %: — — — 97 99 96 98 99 99 99 100 100



Performance Quartile (within category)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	03-21	History
—	—	—	—	—	29.76	31.20	32.30	30.03	32.66	33.06	31.06	NAV/Price
—	—	—	—	5.13	1.56	9.91	8.47	-2.80	14.02	5.82	-5.14	Total Return %
—	—	—	—	-0.84	1.00	7.27	4.93	-2.81	5.30	-1.68	-1.76	+/- Standard Index
—	—	—	—	-2.30	0.37	-0.24	-1.78	1.46	-1.01	0.57	-0.60	+/- Category Index
—	—	—	—	—	—	57	80	21	35	38	—	% Rank Cat
—	—	—	—	—	—	279	295	295	286	274	281	No. of Funds in Cat

Portfolio Analysis 03-31-2021

Asset Allocation %	Net %	Long %	Short %
Cash	-0.08	0.00	0.08
US Stocks	0.00	0.00	0.00
Non-US Stocks	0.00	0.00	0.00
Bonds	100.08	100.08	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.08	0.08

Share Chg since 02-2021	Share Amount	Holdings: 0 Total Stocks, 726 Total Fixed-Income, 21% Turnover Ratio	Net Assets %
⊕	18 mil	Russian Federation	0.72
⊕	16 mil	Qatar (State of)	0.69
⊖	16 mil	Qatar (State of)	0.66
⊖	20 mil	Petroleos Mexicanos	0.66
	17 mil	Saudi Arabia (Kingdom of)	0.64
⊖	52 mil	Argentina (Republic of)	0.53
⊖	13 mil	Qatar (State of)	0.52
⊕	13 mil	Saudi Arabia (Kingdom of)	0.50
⊖	14 mil	Petroleos Mexicanos	0.49
⊕	13 mil	Saudi Arabia (Kingdom of)	0.47
⊖	41 mil	Argentina (Republic of)	0.47
⊖	12 mil	Saudi Arabia (Kingdom of)	0.45
⊖	15 mil	Petroleos Mexicanos	0.44
⊖	12 mil	State of Kuwait	0.44
⊕	12 mil	KSA Sukuk Limited	0.44

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	13.40
Avg Eff Duration	8.19
Avg Wtd Coupon	5.08
Avg Wtd Price	—

Credit Quality Breakdown 02-28-2021	Bond %
AAA	0.05
AA	9.55
A	14.71
BBB	32.95
BB	0.00
B	0.00
Below B	42.74
NR	0.00

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

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	—	—

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 241 funds	5 Yr 192 funds	10 Yr 67 funds
Morningstar Rating™	4★	3★	—
Morningstar Risk	Avg	-Avg	—
Morningstar Return	+Avg	Avg	—

	3 Yr	5 Yr	10 Yr
Standard Deviation	10.42	8.54	—
Mean	4.22	4.85	—
Sharpe Ratio	0.32	0.47	—

MPT Statistics	Standard Index	Best Fit Index JPM EMBI Global Diversified TR USD
Alpha	-0.58	0.29
Beta	1.20	0.94
R-Squared	16.23	98.97
12-Month Yield		4.23%
Potential Cap Gains Exp		-2.44%

Operations

Family:	Vanguard	Base Currency:	USD	Purchase Constraints:	—
Manager:	Joshua Barrickman	Ticker:	VGIVX	Incept:	02-11-2015
Tenure:	7.9 Years	ISIN:	US9219467035	Type:	MF
Objective:	Government Bond - General	Minimum Initial Purchase:	$5 mil	Total Assets:	$2,757.26 mil

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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 03-31-2021

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 Emerging Mkts Govt Bd Idx Instl	—	—	14.97	4.85	—	4.93	02-11-2015	NA	NA	0.23	0.23	NA
BBgBarc US Agg Bond TR USD			0.71	3.10	3.44	—	01-03-1980					
JPM EMBI Global Diversified TR USD			16.00	5.05	5.63	—	07-30-1999					
MSCI EAFE NR USD			44.57	8.85	5.52	—	03-31-1986					
S&P 500 TR USD			56.35	16.29	13.91	—	01-30-1970					
USTREAS T-Bill Auction Ave 3 Mon			0.10	1.16	0.61	—	02-28-1941					

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Annualized returns 03-31-2021

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	12.94	2.88	—	2.91	02-11-2015	8.80	2.85	—	2.87

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

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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.)

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

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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.

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.

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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 perfomance 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

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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.

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.

Vanguard Federal Money Market Fund (VMFXX)

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 60% 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 68% institutional and 32% retail investors.

Headquartered in Malvern, PA, Vanguard employs over 18,000 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. Buckley is also the chairman of Vanguard's board, a role he has held since 2019.

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. The firm's average expense ratio is 0.10%. 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 Federal Money Market Fund seeks to provide current income while maintaining liquidity and a stable share price of $1.

The fund invests primarily in high-quality, short-term money market instruments issued by the U.S. government and its agencies and instrumentalities. Although these securities are high-quality, some of the securities held by the fund are neither guaranteed by the U.S. Treasury nor supported by the full faith and credit of the U.S. government. To be considered high quality, a security must be determined by Vanguard to present minimal credit risk based in part on a consideration of maturity, portfolio diversification, portfolio liquidity, and credit quality. The fund maintains a dollar-weighted average maturity of 60 days or less and a dollar-weighted average life of 120 days or less.

Government money market funds are required to invest at least 99.5% of their total assets in cash, government securities, and/or repurchase agreements that are collateralized solely by government securities or cash (collectively, government securities). The fund generally invests 100% of its assets in government securities and therefore will satisfy the 99.5% requirement for designation as a government money market 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 November 2020
** Source: Vanguard Group, Inc., as of 3/31/2021

Fact sheet | March 31, 2021

Vanguard®

Vanguard Federal Money Market Fund

Money market fund

Fund facts

Risk level (Low ← → High)	Total net assets	Expense ratio as of 12/22/20	Ticker symbol	Inception date	Fund number
1 2 3 4 5	$199,300 MM	0.11%	VMFXX	07/13/81	0033

Investment objective

Vanguard Federal Money Market Fund seeks to provide current income while maintaining liquidity and a stable share price of $1.

Investment strategy

The fund invests primarily in high-quality, short-term money market instruments issued by the U.S. government and its agencies and instrumentalities. Although these securities are high-quality, some of the securities held by the fund are neither guaranteed by the U.S. Treasury nor supported by the full faith and credit of the U.S. government. To be considered high quality, a security must be determined by Vanguard to present minimal credit risk based in part on a consideration of maturity, portfolio diversification, portfolio liquidity, and credit quality. The fund maintains a dollar-weighted average maturity of 60 days or less and a dollar-weighted average life of 120 days or less.

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For the most up-to-date fund data, please scan the QR code below.

Benchmark

US Gov't Money Market Funds Average

Growth of a $10,000 investment : January 31, 2011—December 31, 2020

Annual returns

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Fund	0.01	0.01	0.02	0.01	0.04	0.30	0.81	1.78	2.14	0.45
Benchmark	0.00	0.00	0.00	0.00	0.00	0.02	0.34	1.23	1.61	0.24

Total returns

Periods ended March 31, 2021

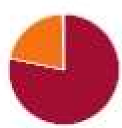
	7-Day SEC Yield	Quarter	Year to date	One year	Three years	Five years	Ten years
Fund	0.01%	0.00%	0.00%	0.11%	1.34%	1.08%	0.55%
Benchmark	—	0.00%	0.00%	0.02%	0.96%	0.69%	0.34%

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns will fluctuate. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance.

Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Seven-day current yield net of expenses. The yield quotation more closely reflects the current earnings of the fund than the total return quotation.

Distribution by issuer-bonds



U.S. Treasury Bills	78.4%	U.S. Commercial Paper	0.0
U.S. Govt. Obligations	21.1	Other	0.0
Repurchase Agreements	0.5	Yankee/Foreign	0.0
Certificates of Deposit	0.0	Bankers Acceptances	0.0

US Gov't Money Market Funds Average: Derived from data provided by Lipper, a Thomson Reuters Company.

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Fact sheet | March 31, 2021

Vanguard Federal Money Market Fund

Money market fund

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Plain talk about risk

The fund is designed for investors with a low tolerance for risk; however, the fund's performance could be hurt by:

Income risk: The chance that the fund's income will decline because of falling interest rates. Because the fund's income is based on short-term interest rates—which can fluctuate significantly over short periods—income risk is expected to be high.

Manager risk: The chance that poor security selection will cause the fund to underperform relevant benchmarks or other funds with a similar investment objective.

Credit risk: The chance that the issuer of a security will fail to pay interest or principal in a timely manner or that negative perceptions of the issuer's ability to make such payments will cause the price of that security to decline. Credit risk should be very low for the fund because it invests primarily in securities that are considered to be of high quality.

While U.S. Treasury or government agency securities provide substantial protection against credit risk, they do not protect investors against price changes due to changing interest rates. Unlike stocks and bonds, U.S. Treasury bills are guaranteed as to the timely payment of principal and interest.

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.

For more information about Vanguard funds or to obtain a prospectus, see below for which situation is right for you.

If you receive your retirement plan statement from Vanguard or log on to Vanguard's website to view your plan, visit vanguard.com or call **800-523-1188**.

If you receive your retirement plan statement from a service provider other than Vanguard or log on to a recordkeeper's website that is not Vanguard to view your plan, please call **855-402-2646**.

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

Financial advisor clients: For more information about Vanguard funds, contact your financial advisor to obtain a prospectus.

Investment Products: Not FDIC Insured • No Bank Guarantee • May Lose Value

 F0033 032021

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 60% 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 68% institutional and 32% retail investors.

Headquartered in Malvern, PA, Vanguard employs over 18,000 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. Buckley is also the chairman of Vanguard's board, a role he has held since 2019.

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. The firm's average expense ratio is 0.10%. 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***

Vanguard Long-Term Treasury Index Fund Institutional Shares' notable investment philosophy and parent firm underpin this share class' Morningstar Quantitative Rating of Gold. The share class maintains a cost advantage over competitors, priced within the cheapest fee quintile among peers.

Transitioning to the fund's rated pillars, Process, and People, the strategy's effective investment philosophy earns it a High Process Pillar rating. The fixed-income team managing the passive product drives the strategy's Above Average People Pillar rating.

Performance***

This strategy's Institutional share class' long-term performance has mirrored both its average peer and category benchmark. Over a 10-year period, this share class' 6.8% gain mirrored the category's average return. And it mirrored the category index's, Bloomberg Barclays U.S. Government Long-Term Bond Index's, performance over the same period.

When adjusting for risk, the fund is less favorable. The share class trailed the index with a lower Sharpe ratio, a measure of risk-adjusted returns, over the trailing 10-year period. But notably, these subpar risk-adjusted results have not come with a rockier ride for investors. This strategy took on similar risk as the benchmark, as measured by standard deviation. Finally, the share class proved itself ineffective as it was unable to generate alpha, over the same 10-year period, against the category group index: a benchmark that encapsulates the performance of the broader asset class.

Price***

By minimizing investing costs, investors can maximize their expected returns. This fund lands in the cheapest quintile of its Morningstar Category. Its attractive expense, taken together with the fund's Pillars result in a judgment that this share class should be able to deliver positive alpha versus the lesser of its median category peer or the category benchmark, explaining its Morningstar Quantitative Rating of Gold.

Process: High***

The investment strategy as stated in fund's prospectus is:

The investment seeks to track the performance of a market-weighted Treasury index with a long-term dollar-weighted average maturity. The fund employs an indexing investment approach designed to track the performance of the Bloomberg Barclays U.S. Long Treasury Bond Index. This index includes fixed income securities issued by the U.S. Treasury (not including inflation-protected bonds), with maturities greater than 10 years. Under normal circumstances, and at least 80% of the fund's assets will be invested in bonds included in the index. Vanguard Long-Term Treasury Index Fund earns a High Process Pillar rating.

This strategy's 12-month yield is 2.0%, which is near its average peer's. Plus, it has a 1.9% 30-day SEC yield. The portfolio's average surveyed credit quality is on par with peers, both the fund and the average being rated AAA.

People: Above Average***

Vanguard's fixed income team is strong compared with others in the industry, resulting in an Above Average People Pillar rating. The fund takes a solo manager approach, with Joshua Barrickman at the helm, who brings 15 years of industry experience to the table. They manage a total of 22 funds, with solid long-term prospects. The strategies average a Gold combined Morningstar Analyst and Quantitative Rating, indicating a position to deliver positive alpha relative to the category median in aggregate. With only one manager listed on the strategy, the passive strategy is vulnerable to key-person risk. However, they have built history managing the strategy, it has not changed hands within the last five years.

* Source: BNY Mellon Manager Research Group, as of November 2020
** Source: Vanguard Group, Inc., as of 3/31/2021
*** Source: Morningstar, Inc, as of 4/26/2021

Release date 03-31-2021 | Note: Portions of the analysis are based on pre-inception returns. Please read disclosure for more information. Page 1 of 11

Vanguard Long-Term Treasury Idx Instl (USD)

Morningstar Quantitative Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Gold ᴽ 02-28-2021	★★★★ 30 US Fund Long Government	BBgBarc US Agg Bond TR USD	BBgBarc US Government Long TR USD	US Fund Long Government

Performance 03-31-2021

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2019	4.67	5.67	8.12	-4.42	14.30
2020	20.86	0.36	-0.03	-2.93	17.72
2021	-13.44	—	—	—	-13.44

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-15.69	5.89	3.12	6.25	5.43
Std 03-31-2021	-15.69	—	3.12	6.25	5.43
Total Return	-15.69	5.89	3.12	6.25	5.43
+/- Std Index	-16.40	1.23	0.02	2.81	—
+/- Cat Index	-0.09	0.05	-0.05	-0.05	—
% Rank Cat	40	32	33	49	
No. in Cat	33	30	26	22	

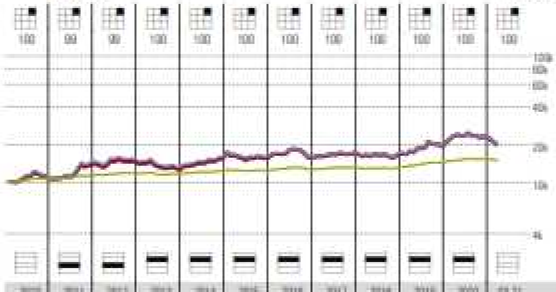
	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 04-19-21	2.21	2.24

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.



Investment Style
Fixed-Income
Bond %

Growth of $10,000

- Vanguard Long-Term Treasury Idx Instl 19,845
- Category Average 19,895
- Standard Index 15,006

Performance Quartile (within category)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	03-21	History
25.81	32.09	32.23	27.30	33.13	31.81	31.46	33.30	31.86	35.51	40.93	35.27	NAV/Price
9.34	28.94	3.52	-12.73	25.09	-1.32	1.38	8.67	-1.63	14.30	17.72	-13.44	Total Return %
2.80	21.10	-0.69	-10.71	19.12	-1.87	-1.27	5.12	-1.64	5.58	10.21	-10.07	+/- Standard Index
-0.05	-0.20	-0.26	-0.25	0.42	-0.15	-0.05	-0.13	0.16	-0.45	0.17	-0.04	+/- Category Index
—	58	55	26	31	40	29	42	37	43	48	—	% Rank Cat
—	34	32	24	30	34	34	32	31	37	32	36	No. of Funds in Cat

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 30 funds	5 Yr 26 funds	10 Yr 22 funds
Morningstar Rating™	4★	4★	3★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	+Avg	+Avg	Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	13.37	12.01	11.92
Mean	5.89	3.12	6.25
Sharpe Ratio	0.39	0.22	0.52

MPT Statistics	Standard Index	Best Fit Index BBgBarc US Government Long TR USD
Alpha	-5.37	-0.03
Beta	3.26	1.02
R-Squared	73.09	99.58

12-Month Yield	2.02%
Potential Cap Gains Exp	11.11%

Portfolio Analysis 03-31-2021

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 Med Low

Avg Eff Maturity	24.40
Avg Eff Duration	18.00
Avg Wtd Coupon	2.74
Avg Wtd Price	106.41

Credit Quality Breakdown 02-28-2021	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 02-2021	Share Amount	Holdings: 0 Total Stocks, 59 Total Fixed-Income, 28% Turnover Ratio	Net Assets %
⊕	238 mil	United States Treasury Bonds	3.65
⊕	223 mil	United States Treasury Bonds	3.50
⊖	194 mil	United States Treasury Bonds	3.28
⊖	222 mil	United States Treasury Bonds	3.20
⊕	210 mil	United States Treasury Bonds	3.15
⊕	186 mil	United States Treasury Bonds	3.05
⊕	122 mil	United States Treasury Bonds	2.71
⊕	149 mil	United States Treasury Bonds	2.66
⊕	127 mil	United States Treasury Bonds	2.63
⊕	182 mil	United States Treasury Bonds	2.54
⊕	122 mil	United States Treasury Bonds	2.52
⊕	124 mil	United States Treasury Bonds	2.51
⊕	118 mil	United States Treasury Bonds	2.50
⊕	157 mil	United States Treasury Bonds	2.38
⊕	113 mil	United States Treasury Bonds	2.34

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:	07-30-2010
Tenure:	8.2 Years	ISIN:	US92206C8394	Type:	MF
Objective:	Government Bond - General	Minimum Initial Purchase:	$5 mil	Total Assets:	$2,229.15 mil

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 03-31-2021

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 Instl	—	—	-15.69	3.12	6.25	5.43	07-30-2010	**NA**	**NA**	**0.05**	**0.05**	**NA**
BBgBarc US Agg Bond TR USD			**0.71**	**3.10**	**3.44**	—	**01-03-1980**					
BBgBarc US Government Long TR USD			**-15.60**	**3.17**	**6.30**	—	**05-01-1991**					
MSCI EAFE NR USD			**44.57**	**8.85**	**5.52**	—	**03-31-1986**					
S&P 500 TR USD			**56.35**	**16.29**	**13.91**	—	**01-30-1970**					
USTREAS T-Bill Auction Ave 3 Mon			**0.10**	**1.16**	**0.61**	—	**02-28-1941**					

Annualized returns 03-31-2021

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	-16.37	2.07	5.07	4.25	07-30-2010	-9.20	1.93	4.43	3.75

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

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.)

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.

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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.

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.

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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 perfomance 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

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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

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.

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 60% 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 68% institutional and 32% retail investors.

Headquartered in Malvern, PA, Vanguard employs over 18,000 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. Buckley is also the chairman of Vanguard's board, a role he has held since 2019.

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. The firm's average expense ratio is 0.10%. 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 are 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 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 November 2020
** Source: Vanguard Group, Inc., as of 3/31/2021
*** Source: Morningstar, Inc., as of 7/11/2020

Release date 03-31-2021 | 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 InstlPls (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Gold 07-12-2020	★★★ 385 US Fund Intermediate Core Bond	BBgBarc US Agg Bond TR USD	BBgBarc US Agg Bond TR USD	US Fund Intermediate Core Bond

Performance 03-31-2021

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2019	2.95	3.08	2.43	0.03	8.74
2020	3.28	2.98	0.62	0.67	7.74
2021	-3.61	—	—	—	-3.61

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	0.56	4.65	3.09	3.41	3.51
Std 03-31-2021	0.56	—	3.09	3.41	3.51
Total Return	0.56	4.65	3.09	3.41	3.51
+/- Std Index	-0.15	-0.01	-0.02	-0.03	—
+/- Cat Index	-0.15	-0.01	-0.02	-0.03	—
% Rank Cat	79	43	52	46	
No. in Cat	421	385	337	255	

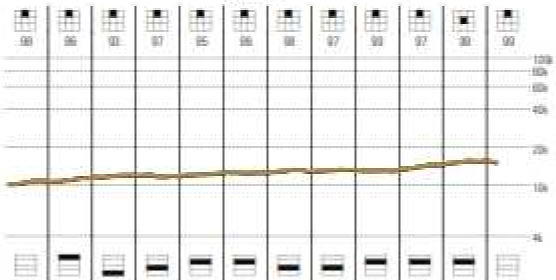
	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 04-19-21	1.34	1.40

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.



2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	03-21	History
10.60	11.00	11.09	10.56	10.87	10.64	10.65	10.75	10.45	11.05	11.62	11.14	NAV/Price
6.57	7.74	4.20	-2.12	5.92	0.42	2.62	3.59	-0.01	8.74	7.74	-3.61	Total Return %
0.03	-0.10	-0.01	-0.09	-0.05	-0.13	-0.03	0.04	-0.02	0.02	0.23	-0.24	+/- Standard Index
0.03	-0.10	-0.01	-0.09	-0.05	-0.13	-0.03	0.04	-0.02	0.02	0.23	-0.24	+/- Category Index
—	11	62	67	29	27	62	54	30	33	44	—	% Rank Cat
—	1195	1165	1079	1038	1042	985	986	1019	430	415	440	No. of Funds in Cat

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 385 funds	5 Yr 337 funds	10 Yr 255 funds
Morningstar Rating™	3★	3★	3★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	Avg	Avg	Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	3.69	3.45	3.16
Mean	4.65	3.09	3.41
Sharpe Ratio	0.90	0.57	0.89

MPT Statistics	Standard Index	Best Fit Index BBgBarc US Agg Bond TR USD
Alpha	-0.11	-0.11
Beta	1.03	1.03
R-Squared	99.19	99.19

12-Month Yield	2.18%
Potential Cap Gains Exp	6.89%

Portfolio Analysis 03-31-2021

Asset Allocation %	Net %	Long %	Short %
Cash	0.07	0.07	0.00
US Stocks	0.00	0.00	0.00
Non-US Stocks	0.00	0.00	0.00
Bonds	99.10	99.29	0.19
Other/Not Clsfd	0.83	0.83	0.00
Total	100.00	100.19	0.19

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	8.50
Avg Eff Duration	6.60
Avg Wtd Coupon	2.76
Avg Wtd Price	106.15

Credit Quality Breakdown 02-28-2021	Bond %
AAA	68.39
AA	3.25
A	12.56
BBB	15.79
BB	0.00
B	0.00
Below B	0.01
NR	0.00

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

Share Chg since 02-2021	Share Amount	Holdings: 0 Total Stocks, 15,946 Total Fixed-Income, 78% Turnover Ratio	Net Assets %
☼	2,318 mil	Federal National Mortgage Associat	0.78
	2,126 mil	United States Treasury Notes	0.72
⊕	1,620 mil	United States Treasury Notes	0.57
⊕	1,453 mil	United States Treasury Notes	0.48
⊕	1,358 mil	United States Treasury Notes	0.42
	1,324 mil	United States Treasury Notes	0.40
	1,112 mil	United States Treasury Notes	0.40
☼	1,145 mil	Federal National Mortgage Associat	0.39
	1,111 mil	United States Treasury Notes	0.39
	1,092 mil	United States Treasury Notes	0.39
	1,100 mil	United States Treasury Notes	0.38
	1,216 mil	United States Treasury Notes	0.38
☼	1,098 mil	Government National Mortgage Assoc	0.37
	1,083 mil	United States Treasury Notes	0.37
⊖	1,000 mil	United States Treasury Notes	0.37

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:	8.2 Years	ISIN:	US9219377853	Type:	MF
Objective:	Income	Minimum Initial Purchase:	$100 mil	Total Assets:	$72,949.92 mil

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 03-31-2021

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 Total Bond Market Idx InstlPls	—	—	0.56	3.09	3.41	3.51	02-05-2010	**NA**	**NA**	**0.03**	**0.03**	**NA**
BBgBarc US Agg Bond TR USD			**0.71**	**3.10**	**3.44**	**—**	**01-03-1980**					
MSCI EAFE NR USD			**44.57**	**8.85**	**5.52**	**—**	**03-31-1986**					
S&P 500 TR USD			**56.35**	**16.29**	**13.91**	**—**	**01-30-1970**					
USTREAS T-Bill Auction Ave 3 Mon			**0.10**	**1.16**	**0.61**	**—**	**02-28-1941**					

Annualized returns 03-31-2021

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 InstlPls	-0.37	1.98	2.27	2.34	02-05-2010	0.37	1.88	2.15	2.23

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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

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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.)

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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

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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.

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.

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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 perfomance 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

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

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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.

Upcoming Year of Enrollment Portfolio Changes (July 2021)

In accordance with the established Conservative, Moderate and Growth glide paths, there will be no new Year of Enrollment portfolios created this year. Within existing Year of Enrollment Conservative portfolios, the 2034, 2032, and 2030 portfolios are scheduled for asset allocation adjustments consistent with its established glide path. There are no Year of Enrollment Moderate portfolios changes scheduled this year. Among Year of Enrollment Growth portfolios, 2026, 2024, and 2022 portfolios are due for modification in accordance with its glide path.

DreamAhead Year of Enrollment Conservative Portfolio Adjustments

Asset Category	Fund	Ticker	2034		2032		2030	
U.S. Large Cap Blend	Fidelity® Total Market Index Fund	FSKAX	12	10	9	8	7	5
U.S. Large Cap Blend	Schwab Total Stock Market Index Fund®	SWTSX	11	10	9	7	6	5
Foreign Large Blend	Fidelity® International Index Fund	FSPSX	16	15	12	11	8	7
Diversified Emerging Mkts	Fidelity® Emerging Markets Index Fund	FPADX	6	5	5	4	4	3
Intermediate-Term Bond	Fidelity® U.S. Bond Index Fund	FXNAX	21	24	26	28	29	28
Intermediate-Term Bond	Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	22	24	26	28	30	29
Long Government	Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	4	4	4	4	5	4
Inflation-Protected Bond	Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	5	5	6	7	8	7
Emerging Markets Bond	Vanguard Emerging Markets Government Bond Index Fund Institutional Shares	VGIVX	2	2	2	2	2	2
Cash	Vanguard Federal Money Market Fund Investor Shares	VMFXX	1	1	1	1	1	10
		Total	100	100	100	100	100	100

Columns highlighted in blue are current allocations as of 3/31/2021. Portfolio changes occurring in July 2021 are highlighted in green.

DreamAhead Year of Enrollment Growth Portfolios

Asset Category	Fund	Ticker	2026		2024		2022	
U.S. Large Cap Blend	Fidelity® Total Market Index Fund	FSKAX	18	16	13	11	8	5
U.S. Large Cap Blend	Schwab Total Stock Market Index Fund®	SWTSX	18	15	13	10	7	5
Foreign Large Blend	Fidelity® International Index Fund	FSPSX	26	22	18	14	11	7
Diversified Emerging Mkts	Fidelity® Emerging Markets Index Fund	FPADX	8	7	6	5	4	3
Intermediate-Term Bond	Fidelity® U.S. Bond Index Fund	FXNAX	10	15	20	24	28	33
Intermediate-Term Bond	Vanguard Total Bond Market Index Fund Institutional Plus Shares	VBMPX	10	15	20	24	28	33
Long Government	Vanguard Long-Term Treasury Index Fund Institutional Shares	VLGIX	3	3	3	4	4	4
Inflation-Protected Bond	Schwab® Treasury Inflation Protected Securities Index Fund	SWRSX	4	4	4	5	7	7
Emerging Markets Bond	Vanguard Emerging Markets Government Bond Index Fund Institutional Shares	VGIVX	2	2	2	2	2	2
Cash	Vanguard Federal Money Market Fund Investor Shares	VMFXX	1	1	1	1	1	1
		Total	100	100	100	100	100	100

Columns highlighted in blue are current allocations as of 3/31/2021. Portfolio changes occurring in July 2021 are highlighted in green.

Important Disclosures

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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, fees 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 calling the fund or visiting the respective fund company's website, or by visiting the SEC's EDGAR website at https://www.sec.gov/edgar/search/#. Please read the prospectus and, if available, the summary prospectus carefully before investing.

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.

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 March 31, 2021

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 2038 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 2036 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 2034 Portfolio

23% Dow Jones US Total Stock Market TR USD, 16% MSCI EAFE NR USD, 6% MSCI EM NR USD, 43% 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 2032 Portfolio

18% Dow Jones US Total Stock Market TR USD, 12% MSCI EAFE NR USD, 5% MSCI EM NR USD, 52% 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, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Conservative Year of Enrollment 2030 Portfolio

13% Dow Jones US Total Stock Market TR USD, 8% MSCI EAFE NR USD, 4% MSCI EM NR USD, 59% 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, 1% Bloomberg Barclays US Treasury Bill 1-3 Mon TR USD

Conservative Year of Enrollment 2028 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 2026 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 2024 Portfolio

3% Dow Jones US Total Stock Market TR USD, 2% MSCI EAFE NR USD, 0% MSCI EM 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 2022 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 Enrolled 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 2038 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 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

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 2032 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 2030 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 2028 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 2026 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 2024 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 2022 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 Enrolled 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 2038 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 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

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 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

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 2028 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 2026 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

Growth Year of Enrollment 2024 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

Growth Year of Enrollment 2022 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

Growth Year of Enrollment Enrolled 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

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 CRS (Customer Relationship Summary) and applicable Form ADV Part 2, Wrap Fee Brochure (Managed 360® Program, Managed Account Advisor Program, Lockwood Sponsored Program, Co-Sponsored Programs) or the 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.

Senate Bill 5430 Overview

Bill Overview

Title	Relating to tuition unit pricing in the advanced college tuition payment program
Sponsor	Senator Mark Mullet
Current Status *(as of 5/3/21)*	Passed the Legislature and delivered to the Governor for consideration
Brief Summary	This bill limits the tuition unit purchase price the WA529 Committee may set for GET units when specified state tuition policy and program funded status conditions are present. The bill also requires the Committee to reprice units for customers purchasing GET units at the 2020-21 GET unit price and add units to their accounts.

Background

The GET prepaid tuition program consists of the sale of tuition units, where 100 units redeemed today equal one year of resident, undergraduate tuition and state-mandated fees at Washington's highest-priced public university. For the 2020-2021 academic year, 100 tuition units pay out at $11,103 (or $111.03/unit), which is the cost of tuition and state-mandated fees at the University of Washington-Tacoma.

Annually (typically in September), the WA529 Committee determines a price to charge for the sale of new GET units. The Office of the State Actuary (OSA) produces a price-setting analysis to assist the Committee in setting the GET unit price. This analysis provides the Committee with a "best estimate unit price" and "best estimate unit price range," which are informed by assumptions about expected future tuition growth and investment returns. The best estimate unit price also includes components that contribute to the costs of ongoing program administration and a stabilization reserve.

Historically, the GET unit purchase price has always carried a premium, ranging from 3-41 percent, over the current unit payout value as, on average, GET customers are not expected to begin using their units for approximately 15 years from the purchase date. In state fiscal year 2021, the WA529 Committee selected a price of $133/unit from a best estimate unit price range of $129 - $147 (with a best estimate unit price of $137). This represents a 19.8 percent premium over the unit payout value.

As of June 30, 2020, GET was 131 percent funded with a present value of $1.56 billion and a present value of future obligations of $1.19 billion.

Detailed Bill Summary

The enrolled bill requires the WA529 Committee to adopt a GET unit price of no more than 10 percent, including administrative fees, above the current unit payout value if: the best estimate funded status of the program, as provided by OSA, exceeds 120 percent as of July 1 each year; and tuition and fee increases for the academic year immediately following the July 1 best estimate funded status do not exceed the 14-year rolling average of Washington's median hourly wage.

The bill also requires WA529 Committee to retroactively adjust the GET unit price for the 2020-2021 GET enrollment year to no more than 10 percent above the 2020-2021 GET unit payout value and grant additional tuition units to each customer who bought GET units in the 2020-2021 GET enrollment year, based on the difference between the original $133 unit price and the adjusted price.

Discussion

In considering the implications of this bill if it were to become law it is helpful to consider how the bill would impact GET customers who have already purchased units and current and future GET customers who might purchase units in the future.

Current unit holder impacts

Under this bill, the 2020-2021 GET unit price would be lowered from $133 to $122 (= $111.03 payout value x 110 percent). GET customers who bought units at $133 would receive an adjustment to their accounts to bring their effective unit price down by $11 to $122. For example, if a unit holder bought 100 units at $133, they would receive about 9 additional units (= $11 ÷ $122 x 100 units). The bill does not state the date to make the adjustment, but it is reasonable to assume that it should occur before the Committee adopts the 2021-2022 GET unit purchase price in mid-September.

Future unit purchaser impacts

The bill sets a maximum future unit price of 10 percent above the then current payout value when the following two conditions are met:

1. The best estimate funded status of the program is above 120 percent as of July 1 of each year preceding the September unit price adoption; and
2. Tuition and fee increases for the academic year immediately following the July 1 best estimate funded status measurement do not exceed the 14-year rolling average of Washington's median hourly wage. Staff interprets this to be the equivalent of the state's current law tuition policy.

For context, it is helpful to consider that the most recent funded status for the GET program, measured as of June 30, 2020, was 131 percent. Additionally, the budget that passed the Legislature during the 2021 session maintains the state's current tuition policy through the 2021-2023 biennium.

Additional Notes and Assumptions

- The original bill stated that the pricing cap would be "10 percent, plus administrative fees, above the current unit payout value." An amendment introduced by the House College and Workforce Development Committee changed this to "10 percent, including administrative fees, above the current unit payout value."
- Each year, the official GET Actuarial Valuation Report (GAVR), that measures GET's funded status as of June 30, is typically not available until the WA529 Committee meets in November. Therefore, when performing the price-setting exercise, OSA and the Committee typically consider a roll forward estimate of GET's funded status from the prior year's GAVR. Staff assumes this same approach will satisfy the directives of the bill for determining if the program's funded status meets the 120 percent requirement for the 10 percent pricing cap to apply.
- The bill does not specify the treatment of custom monthly plans where customers lock in a set unit price and monthly payment and finance their unit purchase over time. If the bill were to become law, staff would first adjust on-going monthly payments. Then, any overpayments resulting from adjusting monthly payments already made would be applied towards the account.
- There is not an effective date stated in the bill, so if it becomes law, the effective date would be 90 days after the end of the state legislative session, which adjourned on April 25, 2021.
- See ***SB5430-Final Fiscal Note*** for a more detailed analysis of the fiscal, program, and actuarial impacts anticipated if SB 5430 were enacted.

CERTIFICATION OF ENROLLMENT

SENATE BILL 5430

67th Legislature
2021 Regular Session

Passed by the Senate April 15, 2021
Yeas 47 Nays 1

President of the Senate

Passed by the House April 9, 2021
Yeas 97 Nays 0

Speaker of the House of Representatives

Approved

Governor of the State of Washington

CERTIFICATE

I, Brad Hendrickson, Secretary of the Senate of the State of Washington, do hereby certify that the attached is **SENATE BILL 5430** as passed by the Senate and the House of Representatives on the dates hereon set forth.

Secretary

FILED

Secretary of State
State of Washington

SENATE BILL 5430

AS AMENDED BY THE HOUSE

Passed Legislature - 2021 Regular Session

State of Washington 67th Legislature 2021 Regular Session

By Senator Mullet

Read first time 02/05/21. Referred to Committee on Higher Education & Workforce Development.

AN ACT Relating to tuition unit pricing in the advanced college tuition payment program; and amending RCW 28B.95.030.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

Sec. 1. RCW 28B.95.030 and 2018 c 188 s 2 are each amended to read as follows:

(1) The Washington advanced college tuition payment program shall be administered by the committee on advanced tuition payment which shall be chaired by the director of the office. The committee shall be supported by staff of the office.

(2)(a) The Washington advanced college tuition payment program shall consist of the sale of tuition units, which may be redeemed by the beneficiary at a future date for an equal number of tuition units regardless of any increase in the price of tuition, that may have occurred in the interval, except as provided in subsections ((~~(7)~~)) <u>(9)</u> and ((~~(8)~~)) <u>(10)</u> of this section.

(b) Each purchase shall be worth a specific number of or fraction of tuition units at each state institution of higher education as determined by the governing body, except as provided in subsections ((~~(7)~~)) <u>(9)</u> and ((~~(8)~~)) <u>(10)</u> of this section.

(c) The number of tuition units necessary to pay for a full year's, full-time undergraduate tuition and fee charges at a state institution of higher education shall be set by the governing body at the time a purchaser enters into a tuition unit contract, except as provided in subsections ((~~(7)~~)) (9) and ((~~(8)~~)) (10) of this section.

(d) The governing body may limit the number of tuition units purchased by any one purchaser or on behalf of any one beneficiary, however, no limit may be imposed that is less than that necessary to achieve four years of full-time, undergraduate tuition charges at a state institution of higher education. The governing body also may, at its discretion, limit the number of participants, if needed, to ensure the actuarial soundness and integrity of the program.

(e) While the Washington advanced college tuition payment program is designed to help all citizens of the state of Washington, the governing body may determine residency requirements for eligible purchasers and eligible beneficiaries to ensure the actuarial soundness and integrity of the program.

(3)(a) No tuition unit may be redeemed until two years after the purchase of the unit.

(b) Units may be redeemed for enrollment at any institution of higher education that is recognized by the internal revenue service under chapter 529 of the internal revenue code. Units may also be redeemed to pay for dual credit fees.

(c) Units redeemed at a nonstate institution of higher education or for graduate enrollment shall be redeemed at the rate for state public institutions in effect at the time of redemption.

(4) The governing body shall determine the conditions under which the tuition benefit may be transferred to another family member. In permitting such transfers, the governing body may not allow the tuition benefit to be bought, sold, bartered, or otherwise exchanged for goods and services by either the beneficiary or the purchaser.

(5) The governing body shall administer the Washington advanced college tuition payment program in a manner reasonably designed to be actuarially sound, such that the assets of the trust will be sufficient to defray the obligations of the trust including the costs of administration. The governing body may, at its discretion, discount the minimum purchase price for certain kinds of purchases such as those from families with young children, as long as the actuarial soundness of the account is not jeopardized.

(6) The governing body shall annually determine current value of a tuition unit.

(7) The governing body shall adopt a unit price of no more than 10 percent, including administrative fees, above the current unit payout value if:

(a) The best estimate funded status of the program provided by the state actuary is in excess of at least 120 percent as of July 1st of each year; and

(b) Tuition and fee increases for the academic year immediately following the July 1st best estimate funded status will be no more than the average annual percentage growth rate in the median hourly wage for Washington for the previous 14 years as the wage is determined by the federal bureau of labor statistics.

(8) For units purchased at the 2020-21 unit price, the governing body shall grant additional units to each account holder equivalent to the difference between the 2020-21 unit price and the 2020-21 unit payout value, after adjusting the unit payout value 10 percent above the current price, including administrative fees, as determined by the governing body.

(9) For the 2015-16 and 2016-17 academic years only, the governing body shall set the payout value for units redeemed during that academic year only at one hundred seventeen dollars and eighty-two cents per unit. For academic years after the 2016-17 academic year, the governing body shall make program adjustments it deems necessary and appropriate to ensure that the total payout value of each account on October 9, 2015, is not decreased or diluted as a result of the initial application of any changes in tuition under section 3, chapter 36, Laws of 2015 3rd sp. sess. In the event the committee or governing body provides additional units under chapter 36, Laws of 2015 3rd sp. sess., the committee and governing body shall also increase the maximum number of units that can be redeemed in any year to mitigate the reduction in available account value during any year as a result of chapter 36, Laws of 2015 3rd sp. sess. The governing body must notify holders of tuition units after the adjustment in this subsection is made and must include a statement concerning the adjustment.

((~~(8)~~)) (10) The governing body shall allow account owners who purchased units before July 1, 2015, to redeem such units at the unit cash value price provided that all the redeemed funds are deposited immediately into an eligible Washington college savings program account established by the governing body. Within ninety days of

April 15, 2018, the committee, in consultation with the state actuary and state investment board, shall:

(a) Establish a period that is not less than ninety days during which eligible purchasers may redeem units at the unit cash value price for the purposes of this subsection and provide at least thirty days' notice prior to the ninety-day window to all eligible account holders about the redemption option; and

(b) Establish the unit cash value price. The committee, in consultation with the state actuary and the state investment board, may revalue the unit cash value price established in this subsection ((~~(8)~~)) (10)(b) up to three times during the ninety-day period in which eligible purchasers may redeem units for the unit cash value price.

((~~(9)~~)) (11)(a) After the governing body completes the requirements of subsection ((~~(8)~~)) (10) of this section, the governing body shall adjust, by March 1, 2019, all remaining unredeemed units purchased before July 1, 2015, as follows:

(i) First, the governing body shall take the difference between the average unit purchase price in each individual's account and the 2016-17 unit payout value and increase the number of units in each individual's account by a number of units of equivalent total value at the 2017-18 unit purchase price, if the average unit purchase price is more than the 2016-17 unit payout value; and

(ii) Second, after (a)(i) of this subsection is completed, the governing body, with assistance from the state actuary, shall grant an additional number of units to each account holder with unredeemed and purchased units before July 1, 2015, in order to lower the best-estimate funded status of the program to one hundred twenty-five percent, subject to a limit of an increase of fifteen percent of unredeemed and purchased units per account holder. The state actuary shall select the measurement date, assumptions, and methods necessary to perform an actuarial measurement consistent with the purpose of this subsection.

(b) For the purpose of this subsection ((~~(9)~~)) (11), and for account holders with uncompleted custom monthly contracts, the governing body shall only include purchased and unredeemed units before July 1, 2015.

((~~(10)~~)) (12) The governing body shall collect an amortization fee as a component of each future unit sold whenever the governing body determines amortization fees are necessary to increase the best-estimate funded status of the program.

((~~(11)~~)) (13) The governing body shall promote, advertise, and publicize the Washington advanced college tuition payment program. Materials and online publications advertising the Washington advanced college tuition payment program shall include a disclaimer that the Washington advanced college tuition payment program's guarantee is that one hundred tuition units will equal one year of full-time, resident, undergraduate tuition at the most expensive state institution of higher education, and that if resident, undergraduate tuition is reduced, a tuition unit may lose monetary value.

((~~(12)~~)) (14) In addition to any other powers conferred by this chapter, the governing body may:

(a) Impose reasonable limits on the number of tuition units or units that may be used in any one year;

(b) Determine and set any time limits, if necessary, for the use of benefits under this chapter;

(c) Impose and collect administrative fees and charges in connection with any transaction under this chapter;

(d) Appoint and use advisory committees and the state actuary as needed to provide program direction and guidance;

(e) Formulate and adopt all other policies and rules necessary for the efficient administration of the program;

(f) Consider the addition of an advanced payment program for room and board contracts and also consider a college savings program;

(g) Purchase insurance from insurers licensed to do business in the state, to provide for coverage against any loss in connection with the account's property, assets, or activities or to further insure the value of the tuition units;

(h) Make, execute, and deliver contracts, conveyances, and other instruments necessary to the exercise and discharge of its powers and duties under this chapter;

(i) Contract for the provision for all or part of the services necessary for the management and operation of the program with other state or nonstate entities authorized to do business in the state;

(j) Contract for other services or for goods needed by the governing body in the conduct of its business under this chapter;

(k) Contract with financial consultants, actuaries, auditors, and other consultants as necessary to carry out its responsibilities under this chapter;

(l) Solicit and accept cash donations and grants from any person, governmental agency, private business, or organization; and

(m) Perform all acts necessary and proper to carry out the duties and responsibilities of this program under this chapter.

--- END ---

Multiple Agency Fiscal Note Summary

Bill Number: 5430 SB AMH CWD H1375.1	**Title:** Advanced tuition payment prg

Estimated Cash Receipts

Agency Name	2021-23			2023-25			2025-27		
	GF-State	NGF-Outlook	Total	GF-State	NGF-Outlook	Total	GF-State	NGF-Outlook	Total
Student Achievement Council	Non-zero but indeterminate cost and/or savings. Please see discussion.								
Total $	0	0	0	0	0	0	0	0	0

Estimated Operating Expenditures

Agency Name	2021-23				2023-25				2025-27			
	FTEs	GF-State	NGF-Outlook	Total	FTEs	GF-State	NGF-Outlook	Total	FTEs	GF-State	NGF-Outlook	Total
Student Achievement Council	.3	0	0	88,000	.0	0	0	0	.0	0	0	0
Student Achievement Council	In addition to the estimate above,there are additional indeterminate costs and/or savings. Please see individual fiscal note.											
Actuarial Fiscal Note - State Actuary	Non-zero but indeterminate cost and/or savings. Please see discussion.											
Total $	0.3	0	0	88,000	0.0	0	0	0	0.0	0	0	0

Estimated Capital Budget Expenditures

Agency Name	2021-23			2023-25			2025-27		
	FTEs	Bonds	Total	FTEs	Bonds	Total	FTEs	Bonds	Total
Student Achievement Council	.0	0	0	.0	0	0	.0	0	0
Actuarial Fiscal Note - State Actuary	.0	0	0	.0	0	0	.0	0	0
Total $	0.0	0	0	0.0	0	0	0.0	0	0

Agency Name	2021-23			2023-25			2025-27		
	FTEs	GF-State	Total	FTEs	GF-State	Total	FTEs	GF-State	Total

Estimated Capital Budget Breakout

Prepared by: Breann Boggs, OFM	Phone: (360) 485-5716	Date Published: Final 4/18/2021

Individual State Agency Fiscal Note

Bill Number: 5430 SB AMH CWD H1375.1	Title: Advanced tuition payment prg	Agency: 340-Student Achievement Council

Part I: Estimates

☐ **No Fiscal Impact**

Estimated Cash Receipts to:

Non-zero but indeterminate cost and/or savings. Please see discussion.

Estimated Operating Expenditures from:

	FY 2022	FY 2023	2021-23	2023-25	2025-27
FTE Staff Years	0.5	0.0	0.3	0.0	0.0
Account					
Advanced College Tuition Payment Program Account-Non-Appropriated 788-6	88,000	0	88,000	0	0
Total $	88,000	0	88,000	0	0

In addition to the estimates above, there are additional indeterminate costs and/or savings. Please see discussion.

Estimated Capital Budget Impact:

NONE

The cash receipts and expenditure estimates on this page represent the most likely fiscal impact. Factors impacting the precision of these estimates, and alternate ranges (if appropriate), are explained in Part II.

Check applicable boxes and follow corresponding instructions:

☒ If fiscal impact is greater than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete entire fiscal note form Parts I-V.

☐ If fiscal impact is less than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete this page only (Part I).

☐ Capital budget impact, complete Part IV.

☐ Requires new rule making, complete Part V.

Legislative Contact:		Phone:	Date: 04/02/2021
Agency Preparation:	Luke Minor	Phone: 360-753-7628	Date: 04/05/2021
Agency Approval:	Don Bennett	Phone: 360-753-7810	Date: 04/05/2021
OFM Review:	Breann Boggs	Phone: (360) 485-5716	Date: 04/06/2021

Part II: Narrative Explanation

II. A - Brief Description Of What The Measure Does That Has Fiscal Impact

Briefly describe by section number, the significant provisions of the bill, and any related workload or policy assumptions, that have revenue or expenditure impact on the responding agency.

This bill limits the tuition unit purchase price the Committee on Advanced Tuition Payment and College Savings (Committee) may set for the Advanced College Tuition Payment Program (branded and known as Guaranteed Education Tuition or GET) when specified state tuition policy and program funded status conditions are present. The bill also requires the Committee to reprice units for customers who purchase GET units at the 2020-21 GET unit price and add units to their accounts.

Section 1(7) describes the price limit and the conditions necessary for the price limit to be in effect. In years when the state's current tuition growth policy remains in effect, and the GET funded status as of July 1 measures greater than 120%, the Committee must set a GET unit price that is no more than 10%, including administrative fees, above the then current GET unit payout value.

Section 1(8) describes an adjustment the Committee must make for each customer who purchased units at the 2020-21 GET unit price. The committee must reprice units based on the requirements of Section 1 (7) and apply the difference between this amount and the original amount the customer paid towards additional units to be added to the customer's account.

The House committee striking amendment (5430 AMH CWD H1375.1) differs from the bill as passed the Senate by stating that the 10% cap on unit price increases is inclusive of administrative fees, rather than allowing for administrative fees to be added above the 10% pricing cap.

II. B - Cash receipts Impact

Briefly describe and quantify the cash receipts impact of the legislation on the responding agency, identifying the cash receipts provisions by section number and when appropriate the detail of the revenue sources. Briefly describe the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explain how workload assumptions translate into estimates. Distinguish between one time and ongoing functions.

This bill would have an indeterminate impact on cash receipts. If passed, WSAC estimates this bill, as amended, would lower the current 2020-21 GET unit price of $133 to $122. The price limit could also produce future unit prices that are lower than the 'best estimate' unit purchase price provided by the Office of the State Actuary (OSA) to the Committee (if current state tuition policy and investment return assumptions remain in place). News of such a price decrease and the potential for sustained lower unit pricing into the future may increase interest in the program and lead to increased unit sales in years where the unit price limit remains in effect. The number of additional unit sales per fiscal year cannot be accurately projected, though it could range into the tens of thousands of units. Depending on the total increase in annual unit sales, the program could recognize additional unanticipated revenues. Alternatively, the program may see little impact or a negative impact on revenues as the lower unit price could offset, or more than offset, any unit sale increases. If total contributions increase, total future investment return revenues for the GET trust fund would, necessarily, be expected to increase, assuming long-term positive investment performance.

For illustrative purposes, it may be helpful to consider the impact on unit sales the last time the GET unit price was lowered. In the GET enrollment year immediately prior to passage of the state's current tuition policy in 2015 (known as the College Affordability Program) and the resulting temporary unit sales suspension, the program sold 618,367 units. These units were sold at the program's highest historical unit price of $172 based on prior projections of tuition rates. When the program reopened with a significantly lower $113 unit price for the 2017-18 enrollment year, 770,665 units were purchased (an increase of 25%). The environmental factors, the degree of change in price, and consumer sentiments were significantly different at that time, so it cannot be assumed this bill would have similar impacts.

II. C - Expenditures

Briefly describe the agency expenditures necessary to implement this legislation (or savings resulting from this legislation), identifying by section number the provisions of the legislation that result in the expenditures (or savings). Briefly describe the factual basis of the assumptions and the method by which the expenditure impact is derived. Explain how workload assumptions translate into cost estimates . Distinguish between one time and ongoing functions .

The expenditure impact of implementing sections 1 (7) and 1(8) is partially indeterminate due to unknown added future benefits costs. This bill would result in increased expenditures from the non-appropriated GET fund as approved by the Committee for two primary reasons:

Increased Benefits Costs
As described in the Cash Receipts Impact above, implementation of Sections 1 (7) and 1(8) is likely to increase unit sales over time. Additionally, in years when the price limit is in effect, unit prices may be priced below the 'best estimate' unit price (and could even fall below the bottom limit of the 'best estimate' unit price range) as calculated by OSA. This could result in units being priced lower than what would otherwise be expected, based on the program's pricing model. Additionally, the requirements of Section 1 (8) would cause customers purchasing units at the current GET unit price to receive additional units at no additional cost. These factors are expected to increase the aggregate of future benefits payable to GET customers by an indeterminate but higher amount than projected based on existing assumptions.

Tuition units must be held for at least two years before redemption, so WSAC does not anticipate incurring any additional benefits costs in the 2021-23 biennium. Additional benefits costs could begin as soon as FY 2024. However, the current program assumption is that GET units are held, on average, for 15 years before redemption. Accordingly, additional benefits costs, while unknown, are likely to be minimal for the 2023-25 and 2025-27 biennia.

Increased Administrative Costs
Expected administrative costs to implement Sections 1 (7) and 1(8) include staffing, legal and actuarial services, and goods and services expenses.

Staffing
Program staff resources are needed to coordinate policy and pricing adjustments to implement sections 1 (7) and 1(8). GET information technology and finance staff resources are needed to reprice GET units sold at the 2020-21 unit price, as required by section 1(8). Additionally, GET communications and customer service staff resources are needed to communicate changes to customers, update program disclosure materials, and field increased customer inquiries. These increased staffing requirements are expected to primarily impact FY22. On-going workload in years after initial implementation is not expected to be significantly impacted.

- Policy and pricing input revision: 0.1 FTE associate director for FY22 to coordinate with the Committee, WSAC's assigned Assistant Attorney General (AAG), and OSA to adopt policies and adjust pricing inputs.

- Unit repricing: 0.1 FTE programmer for FY22 to fully develop, test, and implement repricing of GET units purchased at the 2020-21 unit price in the recordkeeping system. A 0.1 FTE financial analyst will be required for FY22 to review and verify accuracy of repricing amounts. WSAC anticipates the most time-consuming adjustments needed will be for Custom Monthly Plan contracts established at the 2020-21 GET unit price. The bill does not specify how to approach adjusting such contracts, in which the unit price is locked in and paid in monthly installments over several years. Because these units are not purchased up front, and customers may cancel or change the terms of their contracts, WSAC assumes that the most appropriate way to reprice monthly plans is to lower the on-going monthly payment amount and apply any resulting overpayments towards future monthly payments or the purchase of additional lump sum units (depending on the customer's selected account settings for treatment of overpayments).

- Customer communications: 0.1 FTE communications coordinator will be required for FY22 to communicate details to existing customers about the new pricing policy and to modify program informational and disclosure materials.

- Customer support: 0.1 FTE customer service specialist will be required in FY22 to support anticipated increased call center activity due to unit re-pricing and general increased interest in the program.

Other Administrative Expenditures
- Work with the Office of the State Actuary to update the annual GET unit pricing exercise and valuation report as necessary ($2,000 in FY22).

- Work with WSAC's assigned AAG and Special AAG to update program policies and rules and update program disclosure materials accordingly ($3,000 in FY22).

- Communicate information regarding the unit price change to customers who purchased units at the 2020-21 GET unit price via U.S. mail and electronic communications ($10,000 in FY22). WSAC expects to notify all other GET customers of this new policy via electronic communications only.

Staff time estimates are rounded to the nearest 0.1 FTE and staff-related and other costs are rounded to the nearest $1000.

Part III: Expenditure Detail

III. A - Operating Budget Expenditures

Account	Account Title	Type	FY 2022	FY 2023	2021-23	2023-25	2025-27
788-6	Advanced College Tuition Payment Program Account	Non-Appropriated	88,000	0	88,000	0	0
		Total $	88,000	0	88,000	0	0

In addition to the estimates above, there are additional indeterminate costs and/or savings. Please see discussion.

III. B - Expenditures by Object Or Purpose

	FY 2022	FY 2023	2021-23	2023-25	2025-27
FTE Staff Years	0.5		0.3		
A-Salaries and Wages	35,000		35,000		
B-Employee Benefits	20,000		20,000		
C-Professional Service Contracts	2,000		2,000		
E-Goods and Other Services	30,000		30,000		
G-Travel	1,000		1,000		
J-Capital Outlays					
M-Inter Agency/Fund Transfers					
N-Grants, Benefits & Client Services					
P-Debt Service					
S-Interagency Reimbursements					
T-Intra-Agency Reimbursements					
9-					
Total $	88,000	0	88,000	0	0

In addition to the estimates above, there are additional indeterminate costs and/or savings. Please see discussion.

III. C - Operating FTE Detail: *List FTEs by classification and corresponding annual compensation. Totals need to agree with total FTEs in Part I and Part IIIA*

Job Classification	Salary	FY 2022	FY 2023	2021-23	2023-25	2025-27
Associate Director	101,000	0.1		0.1		
Customer Service Specialist	45,000	0.1		0.1		
Financial Analyst 3	63,000	0.1		0.1		
Program Coordinator	47,000	0.1		0.1		
Programmer	87,000	0.1		0.1		
Total FTEs		0.5		0.3		0.0

III. D - Expenditures By Program (optional)

Program	FY 2022	FY 2023	2021-23	2023-25	2025-27
Guaranteed Education Tuition (020)	88,000		88,000		
Total $	88,000		88,000		

Part IV: Capital Budget Impact

IV. A - Capital Budget Expenditures

NONE

IV. B - Expenditures by Object Or Purpose

NONE

IV. C - Capital Budget Breakout

Identify acquisition and construction costs not reflected elsewhere on the fiscal note and describe potential financing methods

NONE

IV. D - Capital FTE Detail: *List FTEs by classification and corresponding annual compensation . Totals need to agree with total FTEs in Part IVB*

NONE

Part V: New Rule Making Required

Individual State Agency Fiscal Note

Bill Number: 5430 SB AMH CWD H1375.1	Title: Advanced tuition payment prg	Agency: AFN-Actuarial Fiscal Note - State Actuary

Part I: Estimates

☐ **No Fiscal Impact**

Estimated Cash Receipts to:

NONE

Estimated Operating Expenditures from:

Non-zero but indeterminate cost and/or savings. Please see discussion.

Estimated Capital Budget Impact:

NONE

The cash receipts and expenditure estimates on this page represent the most likely fiscal impact. Factors impacting the precision of these estimates, and alternate ranges (if appropriate), are explained in Part II.

Check applicable boxes and follow corresponding instructions:

☒ If fiscal impact is greater than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete entire fiscal note form Parts I-V.

☐ If fiscal impact is less than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete this page only (Part I).

☐ Capital budget impact, complete Part IV.

☐ Requires new rule making, complete Part V.

Legislative Contact:		Phone:	Date: 04/02/2021
Agency Preparation:	Aaron Gutierrez	Phone: 360-786-6152	Date: 04/05/2021
Agency Approval:	Matt Smith	Phone: 360-786-6147	Date: 04/05/2021
OFM Review:	Marcus Ehrlander	Phone: (360) 000-0000	Date: 04/07/2021

Part II: Narrative Explanation

II. A - Brief Description Of What The Measure Does That Has Fiscal Impact

Briefly describe by section number, the significant provisions of the bill, and any related workload or policy assumptions, that have revenue or expenditure impact on the responding agency.

This bill proposes to lower the adopted unit price for the 2020-21 enrollment period (the "current enrollment period"), grants additional units to contract holders who purchase units during the current enrollment period at the previously adopted price of $133, and establishes conditions that limit the maximum price for future GET unit sales.

For more information on the actuarial analysis conducted on this bill and provided to WA529, please see attached.

II. B - Cash receipts Impact

Briefly describe and quantify the cash receipts impact of the legislation on the responding agency, identifying the cash receipts provisions by section number and when appropriate the detail of the revenue sources. Briefly describe the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explain how workload assumptions translate into estimates. Distinguish between one time and ongoing functions.

II. C - Expenditures

Briefly describe the agency expenditures necessary to implement this legislation (or savings resulting from this legislation), identifying by section number the provisions of the legislation that result in the expenditures (or savings). Briefly describe the factual basis of the assumptions and the method by which the expenditure impact is derived. Explain how workload assumptions translate into cost estimates. Distinguish between one time and ongoing functions.

Part III: Expenditure Detail

III. A - Operating Budget Expenditures

Non-zero but indeterminate cost and/or savings. Please see discussion.

III. B - Expenditures by Object Or Purpose

Non-zero but indeterminate cost and/or savings. Please see discussion.

III. C - Operating FTE Detail: *List FTEs by classification and corresponding annual compensation. Totals need to agree with total FTEs in Part I and Part IIIA*

NONE

III. D - Expenditures By Program (optional)

NONE

Part IV: Capital Budget Impact

IV. A - Capital Budget Expenditures

NONE

IV. B - Expenditures by Object Or Purpose

NONE

IV. C - Capital Budget Breakout

Identify acquisition and construction costs not reflected elsewhere on the fiscal note and describe potential financing methods

NONE

IV. D - Capital FTE Detail: *List FTEs by classification and corresponding annual compensation. Totals need to agree with total FTEs in Part IVB*

NONE

Part V: New Rule Making Required

April 5, 2021

Lucas Minor
WA529 Director
Delivered via email

RE: ACTUARIAL ANALYSIS ON 5430 SB AMH CWD H1375.1

Dear Luke,

As requested, we have prepared the following actuarial analysis on 5430 SB AMH CWD H1375.1 ("the bill") to assist you in evaluating the potential impacts of this bill on the Guaranteed Education Tuition's (GET) unit price, program funded status, reserve, and reserve policy. This analysis may not be appropriate for other purposes.

In this letter we provide quantitative analysis on the proposed 2020-21 unit price change and commentary on how the bill could impact future unit pricing and risk management. For the reasons provided in the letter, we are unable to fully quantify all the impacts of this bill at this time.

The Office of the State Actuary ("we") prepared this letter based on our understanding of the bill as of the date of this letter. If our understanding of the bill is incorrect or if the bill changes, our analysis may change. We intend this letter to be used during the 2021 Legislative Session only.

Bill Summary

The bill lowers the adopted unit price for the 2020-21 enrollment period ("the current enrollment period"), grants additional units to contract holders who purchase units during the current enrollment period at the previously adopted price of $133, and establishes conditions that limit the maximum price for future GET unit sales.

See the **Bill Background** section for further details.

Analysis Summary

- The bill would lower the unit price for the current enrollment period from $133 to $122. That lower unit price reduces the reserve component of the total unit price from 10.9 to 1.7 percent and the unit price falls outside the best estimate range we provided last September that was based on a 15 percent reserve policy.

- As an illustration, if the program sells 500,000 units at $133 per unit after the completion of the current enrollment period, we estimate the bill would grant approximately an additional 45,000 units at no cost to affected account holders and would lower the program's funded status of 131 percent by 0.5 percentage points when measured at June 30, 2020.
- If the program has adverse experience in the future, the additional risk from adding roughly 45,000 units would be small.
- If future experience matches our current assumptions, the program's current reserve levels would increase, and the program's funded status, for currently unredeemed units, would increase.
- If future tuition growth rates continue at current law policy levels and all our other current assumptions are realized, the program's current reserve levels and funded status would increase even more so than the scenario where all our assumptions, including tuition growth, are realized. The bill, in this circumstance, would slow the growth of future reserves by reducing the reserve component of future unit sales.
- If the bill results in the use of current reserves, attributed to past unit sales, to lower the reserve collected from future unit sales, the bill would change the WA529 Committee's (the Committee) current reserve policy/practice and could increase the risk that future unit sales have inadequate reserves.
- The bill could prevent the Committee from adopting a unit price that reflects the reserves they feel are appropriate based on the information available at the time they adopt the unit price.

See the **Actuarial Analysis** section for additional information.

How the Amended Bill Differs from the Original Bill

Amendment H1375.1 makes the following changes:

1. The maximum unit price, including administrative fees, will be set at 10 percent above the current enrollment year payout value if certain conditions are met. This differs from the original bill which did not include administrative fees in the maximum unit price.
2. The revised 2020-21 enrollment period price decreases by $3 from the original bill, and $11 from the price selected by the Committee under current law, as outlined in the following table.

GET Unit Price Information for 2020-21 Enrollment Period			
	Current Law	**Original Bill**	**Amended Bill**
Expected Cost	$116.91	$116.91	$116.91
Expenses	3.03	3.03	3.03
Reserve	13.06	5.06	2.06
Unit Price	**$133.00**	**$125.00**	**$122.00**

Note: Totals may not agree due to rounding.

Bill Background

Unit price adoption by the Committee typically occurs the September prior to the enrollment period. To help inform their decision, we provide the Committee a best estimate unit price and a best estimate range based on three components,

1. The present value of future tuition and covered fees.
2. The present value of future expenses.
3. Fifteen percent reserves for adverse deviation.

In September of 2020, the best estimate unit price was $137, and the best estimate range was $129 to $147. The best estimate increased $16 above the prior unit price of $121. Most of the price increase, roughly $10, was a result of the program's new asset allocation that created a more conservative investment portfolio consisting of 60 percent fixed income and 40 percent global equities. We lowered the rate of return assumption from 5.25 percent to 4.75 percent to reflect this change. Ultimately, the Committee adopted a new unit price lower than our best estimate, but still within the best estimate range, of $133.

Under this bill, the 2020-21 enrollment price would be lowered from $133 to $122. Purchasers of units at the $133 price would receive an adjustment to their account balance to bring their effective unit price to $122. For example, if a unit holder bought 100 units at the $133 price, they would receive about 9 additional units (= 100 units x [$133 ÷ $122 - 1]).

Furthermore, the bill would set a maximum future unit price when the following two conditions are satisfied:

1. The best estimate funded status of the program is above 120 percent as of July 1 of each year preceding the September unit price adoption; and
2. Current law tuition policy remains enacted for the following fiscal year.

If both conditions are met, this maximum unit price will be set at 10 percent above the current enrollment year payout value. For illustration, this calculation was performed to arrive at the new 2020-21 enrollment price of $122.

Maximum Unit Price Illustration	
2020-2021 Enrollment Period	
2020-2021 Payout Value	$111.03
+ 10 Percent	$11.10
Total*	**$122.00**

**Total unit price is assumed to be a rounded down, whole number.*

See **Appendix C** for the assumptions we made when interpreting the bill.

Key Considerations When Calculating a Unit Price

The long-term assumed rate of investment return and tuition growth represent the most significant assumptions when calculating a unit price. As displayed in **Appendix B**, history shows that both variables can experience significant volatility over shorter-term experience periods and tuition policy tends to follow business cycles.

When setting assumptions for both variables, we consider the measurement or application period for the assumption (currently 15 years – to approximate the period from unit purchase to initial redemption of units, on average) and the inherent short-term volatility over that period. However, outside of known tuition growth rates in an enacted state budget, we don't attempt to forecast returns or tuition growth for a single year.

To manage the risk of "adverse deviation," the Committee includes a reserve component in the unit price. Adverse deviation occurs when the program experiences, for example, above expected tuition growth or below expected investment returns. Because we intend to apply the assumptions over a 15-year period, it can take many years to determine if the experience was truly adverse. For example, periods of lower than expected investment returns can be followed by above expected periods. When considered over 15 years, the experience may be close to expected.

The same concept applies to tuition growth. The program has experienced below expected tuition growth since 2014, but time will tell whether that will result in below expected growth because the 15-year period for units sold since 2014 has not concluded.

Under current Committee policy/practice, the Committee targets a 115 percent funded status to manage the risk of adverse deviation for currently unredeemed units. To manage the same risk for future units, the Committee includes a reserve component in the unit price for each new unit sold.

Actuarial Analysis

The results of our analysis vary by the group of purchasers. We analyze the impact on sales from the current enrollment period ("2020-21 Unit Sales") and unit sales thereafter ("Future Unit Sales").

2020-21 Unit Sales

The current enrollment period opened November 1, 2020, and will close May 31, 2021. Under this bill, as illustrated above, the effective unit price will be reduced from $133 to $122. Based on the data in **Appendix A**, the adopted total unit price of $133 includes a 10.9 percent reserve (the percentage of the $133 total unit price above the sum of the expected cost and expenses). This reserve level would be reduced to 1.7 percent under this bill.

As we noted above, the best estimate range we provided the Committee last September was $129 to $147. This was based on a 15 percent reserve policy. The $122 unit price from the bill for the current enrollment period falls outside this range.

We do not know at this time how may units will be purchased or contracted during the current enrollment period because it is still currently open. If similar to last year, we would expect roughly 500,000 unit sales.

If all 500,000 anticipated 2020-21 sales occurred at the $133 unit price, we would expect this bill to result in roughly 45,000 additional units granted at no cost to affected contract holders. This equates to an expected 0.5 percentage point decrease in the program's funded status measured at June 30, 2020, using the data, assumptions, and methods from that measurement.

The actual change in the program's funded status will be based on the actual units sold during the current enrollment period. Actual future experience of the program may also vary from our assumptions. As a result, the actual impact on the program's funded status may vary from the analysis above.

Additionally, if the program granted roughly 45,000 new units at no cost to affected contract holders, each of the units would represent a new "risk exposure" for the program. By risk exposure, we mean an obligation to provide the payment of an uncertain future unit value when redeemed by the unit holder. An additional 45,000 units represents a 0.4 percent increase in total unredeemed units at June 30, 2020 (45,000 ÷ 10,289,070). Given the small percentage increase in total unredeemed units, if the program has adverse experience in the future, we expect the additional risk exposure from adding the approximately 45,000 units to be small.

Future Unit Sales

As noted above, the following two conditions must be met for future unit prices to be impacted by this bill:

1. The best estimate funded status of the program is above 120 percent as of July 1 of each year preceding the September unit price adoption; and
2. Current law tuition policy remains enacted for the following fiscal year.

Due to the high degree of inaccuracy in forecasting future unit sales, and the limited use of resource intensive "open group" modeling in the past, we no longer perform actuarial modeling on the program where we assume future new purchasers beyond the given measurement date. As a result, we cannot fully quantify the financial impacts to the program from the proposed restrictions placed on future unit prices.

With the **Key Considerations When Calculating a Unit Price** in mind, we can comment on some of the conditions in the future that could lead to this bill restricting future unit prices. We can also comment on some of the potential outcomes.

If future experience matches our current assumptions, where we don't assume the indefinite continuation of current law tuition policy, the program's current reserve levels would increase, and the program's funded status would increase for currently unredeemed units. In this circumstance, the reserves to protect the program from adverse deviation are not necessary. The Committee could adopt policies to manage excess reserves in the future including clarification of who should benefit from any excess reserves. Some of the policies, however, may require enabling legislation.

If tuition growth rates continue at current law policy levels and all our other current assumptions are realized, the program's current reserve levels and funded status would increase even more so than the scenario where all our assumptions are realized. The bill, in this circumstance, would slow the growth of future reserves by reducing the reserve component of future unit sales. Put another way, current reserves attributed to currently unredeemed units would be used to provide a portion of the reserves for future unit sales.

Future experience may not match our assumptions and could result in adverse deviation. If that occurs, the program, based on the Committee's current reserve policy, would rely on current reserves to manage that risk for currently unredeemed units. As illustrated in **Appendix A**, the program's funded status at June 30, 2020, was 131 percent. This exceeds the long-term target reserve level of 15 percent (or a target funded status of 115 percent).

Based on the Committee's current reserve policy, the reserves collected on future unit sales are intended to manage the risk of adverse deviation for future unit sales. If the bill results in the use of current reserves, attributed to past unit sales, to lower the reserve collected from future unit sales, the bill would change the Committee's current reserve policy/practices and could increase the risk that future unit sales have inadequate reserves. For the reasons stated above, we cannot quantify that increase in risk at this time.

One of the conditions in the bill that restricts future unit prices is based on a point-in-time funded status measure. As we have seen in the past, the program can experience significant short-term investment losses after a measurement date. If that happens again, it is possible that the program could have a funded status of at least 120 percent at the latest measurement date, but below 120 percent when you consider the investment losses following the measurement date and at the time the Committee adopts a unit price. In that circumstance, the bill could prevent the Committee from adopting a unit price that reflects the reserves they feel are appropriate based on the information available at the time they adopt the unit price. We don't expect this outcome to occur often, and we expect the price restrictions in the bill would not apply in the following year when the funded status measure reflects the market correction.

Actuarial Certification

The Actuarial Standards Board has not defined Actuarial Standards of Practice (ASOPs) specific to the measurement or evaluation of prepaid tuition programs. We used the ASOPs for pensions where possible to guide our analysis of GET. We believe that the assumptions, methods, and calculations used in this quantitative analysis are reasonable and appropriate for the primary purpose as stated above and are in conformity with generally accepted actuarial principles and standards of practice as of the date of this letter. The use of another set of assumptions and methods, however, could also be reasonable and could produce materially different results.

For the areas of our analysis where we could not quantify results, the commentary involves the interpretation of many factors, but not all possible factors, and the application of professional judgment. Another qualified actuary could consider additional factors and the application of their professional judgment could lead to different conclusions.

We produced this analysis based on our interpretation of the bill and consultation with GET staff. We prepared this letter for use during the 2021 Legislative Session.

We advise readers of this analysis to seek professional guidance as to its content and interpretation and not to rely upon this communication without such guidance. Please read the analysis shown in this communication as a whole. Distribution of, or reliance on, only parts of this analysis could result in its misuse and may mislead others.

The undersigned, with actuarial credentials, meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. I'm also available to provide extra guidance and explanations as needed.

Sincerely,

Matthew M. Smith, FCA, EA, MAAA
State Actuary

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APPENDIX A – CURRENT STATUS OF THE PROGRAM

The following table summarizes the key measures of the program's funded status as of the latest valuation date, June 30, 2020. This table provides a point-in-time estimate of the health of the program and should not be considered in isolation or as the sole measure of the program's status.

Funded Status Summary	
(Dollars in Millions)	**2020**
Present Value of Future Obligations	$1,190
Present Value of Fund	$1,559
Funded Status	131.0%
Reserve/(Deficit)	$369

The results shown above are based on the following key assumptions for the future and exclude any impacts from this bill.

Key Assumptions	
Investment Return	
All Years	4.75%
Tuition Growth	
2020-21	2.40%
2021-29	5.50%
2029-31+	5.00%

The WA529 Committee, at their September 2020 meeting, adopted a new unit price of $133 for future sales starting on November 1, 2020. For further details, including sensitivity and risk analysis, please see the presentation titled, *2020-21 GET Unit Price-Setting*, in the WA529 September meeting material located on the Washington Student Achievement Council website.

GET Unit Price Information			
	2020-21 Enrollment		**2019-20 Enrollment**
Unit Price	**Best Estimate Range***	**Best Estimate**	**Best Estimate**
Expected Cost		$116.91	$102.86
Expenses		3.03	2.78
Reserve		17.99	15.85
Amortization		N/A	N/A
Total Unit Price	**$129.00 - $147.00**	**$137.00**	**$121.00**
Unit Price Adopted**		**$133.00**	**$121.00**

Note: Totals may not agree due to rounding.
**Best estimate range based on tuition growth rates shown above.*
***Unit price adopted by the WA529 Committee.*

See the *2020 GET Actuarial Valuation Report* for additional information on the data, assumptions, and methods we used to evaluate the program's current status.

APPENDIX B – HISTORICAL INFORMATION

The following tables outline historical investment return, tuition growth, funded status, unit price, and unit payout values. The unit payout value is based on 1/100 of one year of full-time, resident, undergraduate tuition at the most expensive state institution of higher education.

Historical Program Experience			
Fiscal Year	**Investment Return**	**Tuition Growth**	**Funded Status**
1999	4.96%*	4.0%	110.1%
2000	10.25%	3.7%	113.4%
2001	(1.63%)	3.4%	104.9%
2002	(2.79%)	7.1%	89.6%
2003	7.56%	16.0%	98.4%
2004	16.00%	7.0%	104.5%
2005	10.07%	6.6%	108.1%
2006	8.94%	6.8%	108.8%
2007	14.77%	6.9%	117.4%
2008	(0.70%)	6.8%	109.5%
2009	(16.02%)	6.8%	84.2%
2010	12.68%	13.1%	86.2%
2011	20.46%	13.1%	79.1%
2012	0.07%	19.0%	78.5%
2013	9.59%	15.2%	94.1%
2014	16.36%	0.0%	105.8%
2015	0.83%	0.0%	140.1%
2016	0.61%	(5.0%)	135.6%
2017	10.92%	(9.1%)	132.8%
2018	6.35%	2.1%	130.2%
2019	5.29%	2.1%	131.3%
2020	7.40%	2.3%	131.0%
2021	N/A	2.4%	N/A

**Represents 9-Month Return.*

Historical Unit Price and Payout Value		
Enrollment Year	**Unit Price**	**Payout Value**
1998-99	$35	N/A
1999-00	38	N/A
2000-01	41	$36.41
2001-02	42	38.98
2002-03	52	45.20
2003-04	57	48.36
2004-05	61	51.54
2005-06	66	55.06
2006-07	70	58.88
2007-08	74	62.90
2008-09	76	67.20
2009-10	101	76.00
2010-11	117	85.92
2011-12	163*	102.23
2012-13	172*	117.82
2013-14	172*	117.82
2014-15	172*	117.82
2015-16**	-	117.82
2016-17**	-	117.82
2017-18	113	103.86
2018-19	113	106.01
2019-20	121	108.44
2020-21	$133	$111.03

**Price includes amortization component that was subsequently refunded.*
***Unit sales suspended.*

APPENDIX C – ASSUMPTIONS ON BILL LANGUAGE

We made the following assumptions in our analysis of the bill based on our interpretation of the bill language and consultation with GET staff.

1. We concluded for the following quoted bill language that "the difference between the 2020-21 unit price and the 2020-21 unit payout value, after adjusting the unit payout value 10 percent above the current price including administrative fees as determined by the governing body" equates to the difference between $133 and $122.
2. The unit price for 2020-21 enrollments would be reduced to $122 upon the effective date of this bill.
3. Any adjustments applied for 2020-21 enrollment purchases at the $133 price would be based on a rounded $122.
4. The best estimate funded status of the program as of July 1 could be a roll-forward estimate from the prior year's actuarial valuation report, but may not include material events that occurred after the measurement date and before the Committee's adoption of a unit price.
5. The condition that tuition and fees for the academic year not to exceed "the average annual percentage growth rate in the median hourly wage for Washington for the previous 14 years as the wage is determined by the federal bureau of labor statistics" equates to current tuition policy remaining in effect.
6. Tuition and fees referenced in the bill equate to the same tuition and fees that determine the GET payout value.