

Prepared by:



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Fiduciary Investment Review™

Q4 2021

Prepared for:

Maryland State Retirement and Pension System Optional Retirement Program

Presented by:

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Maryland Optional Retirement Program (ORP) History and Overview

Maryland ORP History

The Optional Retirement Program (ORP) was established by Chapter 556 in 1975. It was created to offer an alternative to the defined benefit retirement plan for the professional staff of the State's public higher education institutions. The ORP is a defined contribution plan, in lieu of the various state-operated defined benefit plans. The Plan does not require member contributions and is solely funded with employer contributions at a rate of 7.25% of a participant's salary.

Upon joining the ORP, a member is immediately fully vested in the member's total account benefit. Enrollment into the ORP is an irrevocable decision.

The Board has the authority to hire and terminate vendors for the ORP, as well as approve the investment options offered by the approved vendors.

- TIAA-CREF was the sole vendor for the ORP until 1993.
- Chapter 428 of the Acts of 1993 authorized the expansion of the ORP to include up to four additional vendors to complement TIAA.
- As of July 1, 1995, the Board added VALIC, Aetna and Twentieth Century, as additional vendors.
- Voya (formerly ING & Aetna) and American Century (formerly Twentieth Century) were terminated as vendors on December 31, 2004.
- The Board added Fidelity as a vendor in 2005.
- VALIC was terminated as a vendor on December 31, 2007.

The Board is NOT responsible for:

- Retirement counseling with respect to the program;
- Preparing or disseminating information with respect to any annuity contract offered by a vendor; and
- Enrolling, terminating, or retiring a participating employee.

An employing institution includes:

- The University System of Maryland;
- Morgan State University;
- St. Mary's College;
- The Maryland Higher Education Commission; and
- Any community college or regional community college

An employing institution is responsible for administering the enrollment, termination or retirement of its employees participating in the ORP.

Maryland ORP Overview

Total assets in the Fidelity plan have increased from \$531.5 million to \$801.9 million over two years ending December 31, 2021. The two-year increase in plan assets resulted from contributions and market action over the prior two years. Plan contributions for the two-year period were \$101.2 million, an increase of 13.5%, and disbursements were \$44.2 million, an increase of 48.5%. Transfers from other providers totaled \$2.1 million. Investment gains (dividend and market action/transactions) for the two years totaled \$209.1 million. As of December 31, 2021, 55.5% of plan assets were invested in Fidelity Freedom Index Target Date Funds. In addition, 72.9% of 2021 plan contributions were directed to Fidelity Freedom Index Target Date Funds. The Fidelity Freedom Index 2040 Fund had the most assets, followed by Fidelity Freedom Index 2045 Fund and then 2050 Fund. As of December 31, 2021, there were 13,577 participants (10,075 active & 3,502 inactive/terminated) in the Plan, a 11.0% increase from 12,237 as the end of 2019.

In 2020, the following changes were made to the Fidelity investment lineup:

- Vanguard FTSE Social Index Fund Admiral Shares (VFTAX) mapped to Vanguard FTSE Social Index Fund I Shares (VFTNX)
- Victory RS Global Fund (RGGRX) replaced AQR Global Equity Fund (AQGRX)
- Fidelity Freedom Target Date Index Series (passive) replaced Fidelity Freedom Target Date Series (active)

Maryland ORP Overview Continued...

The majority of the State of Maryland ORP assets remain in the TIAA plan. As of December 31, 2021, plan assets totaled approximately \$4.18 billion, a two-year increase of \$760.4 million. Plan contributions of approximately \$165.4 million, a decrease of 2.5% over the prior two years, were offset by disbursements of \$330.6 million, an increase of 1.6% over the prior two years. Investment gains for the two years totaled \$923.2 million. As of December 31, 2021, 25.7% of plan assets were invested in the TIAA Traditional account. However, only 10.7% of 2021 plan contributions was directed to TIAA Traditional, while 46.6% was directed to Target Date Funds. This contribution trend has been consistent since 2013. As of the end of 2021, 47.1% of Plan assets is invested in the TIAA Traditional and CREF Stock Account, a decrease from 52.8% in 2019. There were approximately 32,415 participants (17,431 active & 14,984 inactive/terminated) in the Plan at the end of 2021, a decrease from 33,039 at the end of 2019.

In 2020, the following changes were made to the TIAA investment line-up:

- Vanguard Institutional Index Fund I Shares (VINIX) mapped to Vanguard Institutional Index Fund Plus Shares (VIIIX)
- CREF Stock Account was closed and replaced with Hartford Core Equity Fund (HAITX) in the RC contract.
- CREF Growth Account was closed and replaced with T. Rowe Price Institutional Large Cap Growth Fund (TRLGX) in the RC contract.
- CREF Global Equities Account was closed and replaced with Victory RS Global Fund (RGGRX) in the RC contract.
- TIAA-CREF Lifecycle Target Date Index Series (passive) replaced TIAA-CREF Lifecycle Target Date Series (active)
- Assets in the legacy Retirement Annuity contracts were not eligible for mapping.

^{1.} As of 12/31/2021, there were 17,431 participants listed as currently employed participants (no termination date on file) and there were 10,875 participants who are actively contributing to the ORP plan.



Performance as of 12/31/2021

	Ticker/	O.T.D.	\/TD		Annualized	Returns		Since	Share Class	Strategy	Expense	e Ratio
Core Lineup	ID	QTR	YTD	1 Year	3 Year	5 Year	10 Year	Incept.	Inception	Inception	Gross	Net
Money Market												
Vanguard Treasury Money Market Investor	VUSXX	0.00	0.01	0.01	0.87	1.04	0.55	2.31	12/14/1992	12/14/1992	0.09	0.09
FTSE 3-Mo Treasury Bill		0.01	0.05	0.05	0.96	1.11	0.60	-	-	-	-	-
Core Fixed Income												
Fidelity US Bond Index	FXNAX	-0.12	-1.79	-1.79	4.72	3.52	2.86	3.21	5/4/2011	5/4/2011	0.03	0.03
Western Asset Core Bond I	WATFX	-0.16	-1.84	-1.84	5.76	4.34	3.94	6.46	9/4/1990	9/4/1990	0.55	0.46
BB Aggregate Bond		0.01	-1.54	-1.54	4.79	3.57	2.90	-	-	-	-	-
U.S. Government TIPS												
Fidelity Inflation-Prot Bd Index	FIPDX	2.31	5.93	5.93	8.36	5.26	-	2.80	5/16/2012	5/16/2012	0.05	0.05
BB TIPS		2.36	5.96	5.96	8.44	5.34	3.09	-	-	-	-	-
Balanced												
Fidelity Balanced K	FBAKX	6.71	18.41	18.41	21.77	15.12	12.62	9.44	5/9/2008	11/6/1986	0.43	0.43
Fid Bal Hybrid Comp ldx *		6.57	15.86	15.86	17.54	12.62	11.14	-	-	-	-	-
S&P 500 Index		11.03	28.71	28.71	26.07	18.47	16.55	-	-	-	-	-

^{*}Fidelity Balanced Hybrid Composite Index is a hypothetical representation of the performance of the fund's general investment categories using a weighting of 60% equity and 40% bond.

Disclosure

Performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares,

when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted.

The performance data quoted may not reflect the deduction of additional fees, if applicable. Additional fees would reduce the performance quoted.

Performance data is subject to change without prior notice. Expenses shown reflect the fund's prospectus Net and Gross expense ratios.

Some funds, accounts, or share classes may not be available for investment. Performance history prior to inception (if applicable) reflects another share class or account reflecting the manager's historical performance record.

Fund Inception Date - the date on which a fund commenced operations.

Share Class Inception Date - the date on which a fund's share class was introduced.

Contact Financial Integrity Resources Management, LLC with any questions about this report or for the most current month-end performance at (410) 463-9466.

	Ticker/				Annualize	d Retums		Since	Share Class	Strategy	Expens	e Ratio
Core Lineup	I D	QTR	YTD	1 Year	3 Year	5 Year	10 Year	Incept.	I nception	Inception	Gross	Net
Large Cap Value												
BlackRock Equity Dividend Instl	MADVX	4.61	20.35	20.35	16.84	11.57	11.87	10.20	11/29/1988	11/29/1988	0.71	0.71
Russell 1000 Value Index		7.77	25.16	25.16	17.64	11.16	12.97	-	-	-	-	-
	_	-		-	-							
Large Cap Blend												
Fidelity 500 Index	FXAIX	11.02	28.69	28.69	26.06	18.46	16.54	14.86	5/4/2011	5/4/2011	0.01	0.01
Vanguard FTSE Social Index I	VFTNX	10.85	27.77	27.77	28.05	20.29	18.08	10.94	1/14/2003	1/14/2003	0.12	0.12
Fidelity Contrafund K	FCNKX	8.22	24.41	24.41	29.04	22.73	18.07	12.99	5/9/2008	5/17/1967	0.78	0.78
S&P 500 Index		11.03	28.71	28.71	26.07	18.47	16.55	-	-	-	-	-
Large Cap Growth												
Fidelity Blue Chip Growth K	FBGKX	6.99	22.81	22.81	38.62	29.70	22.37	16.75	5/9/2008	12/31/1987	0.71	0.71
Russell 1000 Growth Index		11.64	27.60	27.60	34.08	25.32	19.79	-	-	-	-	-
Mid Cap Blend			1									
Fidelity Mid-Cap Stock K	FKMCX	7.82	28.74	28.74	21.67	14.91	14.42	10.52	5/9/2008	3/29/1994	0.73	0.73
S&P Mid Cap 400 Index		8.00	24.76	24.76	21.41	13.09	14.20	-	-	-	-	-
Small Cap Blend	DEOT/	7.44	00.04	00.04	00.04	14.00	10.00	40.07	0/10/1000	0/40/4000		1 000
DFA US Small Cap I	DFSTX	7.41	30.61	30.61	20.91	11.36	13.66	10.87	3/19/1992	3/19/1992	0.33	0.33
Fidelity Small Cap Index Russell 2000 Index	FSSNX	2.10 2.14	14.71 14.82	14.71	20.05	12.11	13.38 13,23	13.70	9/8/2011	9/8/2011	0.03	0.03
Russell 2000 Index		2.14	14.62	14.82	20.02	12.02	13.23	-	-	-	-	-
International Large Cap Blend												
Fidelity Diversified Intl K6	FKIDX	4,11	13,35	13,35	20,65	13,45*	10,52*	11,01	5/25/2017	5/25/2017	0,60	0.60
MSCI EAFE ND USD	11(15)(2.69	11.26	11.26	13.54	9.55	8.03	-	-	-	-	-
Fidelity Global ex US Index	FSGGX	2.15	7.76	7.76	13.13	9,69	7.27	6.58	9/8/2011	9/8/2011	0.06	0.06
MSCI ACWI ex USA NR		1.82	7.82	7.82	13.18	9.61	7.28	-	-	-	-	-
Global Equity												
Victory RS Global R6	RGGRX	8.66	22.84	22.84	23.52	17.39	14.85	19.97	5/2/2019	5/16/2011	0.98	0.57
MSCI ACWI NR		6.68	18.54	18.54	20.38	14.40	11.85	-		-	-	-

^{*}Longer term annualized performance 5 and 10 year are from Fidelity Diversified Intl K share (FDIKX), a separate higher expense (+31bps) fund with the same manager, investment objective and holdings; however, subject to different cash flow, asset value and performance.

	Ticker/	077			Annualize	d Returns		Since	Share C l ass	Strategy	Expense	e Ratio
Core Lineup	I D	QTR	YTD	1 Year	3 Year	5 Year	10 Year	Incept.	I nception	Inception	Gross	Net
Target Date Funds												
Fidelity Freedom Index Inc Instl Prem	FFGZX	1.34	2.85	2.85	7.32	5.53	4.28	4.58	6/24/2015	10/2/2009	0.08	0.08
FID FF Idx Inc Comp Idx		1.46	3.09	3.09	7.47	5.65	4.57	-	•	-	-	-
28.75% Merrill Lynch 3-Month T-Bill, 51.46% BB Aggregate Bond, 13.23% Russell 3000, 6.57% MSCI ACWI Index ex USA ND USD		1.36	2,88	2.88	7.06	5.27	4.37	•	-	-	-	•
Fidelity Freedom Index 2005 Instl Prem	FFGFX	1.56	3.55	3.55	8.31	6.39	5.45	5.25	6/24/2015	10/2/2009	0.08	0.08
FID FF Idx 2005 Comp Idx		1.66	3.80	3.80	8.46	6.50	5.86	-	-	-	-	-
25.06% Merrill Lynch 3-Month T-Bill, 45.82% BB Aggregate Bond, 17.77% Russell 3000, 11.35% MSCI ACWI Index ex USA ND USD		1.87	4.46	4.46	8.58	6.34	5.31	-	-	-	-	-
	T	1				1				1		
Fidelity Freedom Index 2010 Instl Prem	FFWTX	2.14	5.14	5.14	9.93	7.52	6.57	6.14	6/24/2015	10/2/2009	0.08	0.08
FID FF ldx 2010 Comp ldx		2,22	5.40	5.40	10.08	7.64	7.10	-	-	-	-	-
17.75% Merrill Lynch 3-Month T-Bill, 43.90% BB Aggregate Bond, 23.62% Russell 3000, 14.73% MSCI ACWI Index ex USA ND USD		2.47	6.18	6.18	10.39	7 . 59	6 . 42	-	-	-	-	-
Fidelity Forestons Index 2005 Inath Press	FIWFX	2,77	6,83	6.83	11,58	8,67	7,33	7,04	6/24/2015	10/2/2009	0.08	0.08
Fidelity Freedom Index 2015 Instl Prem FID FF Idx 2015 Comp Idx	FIVVEX	2.77	7.04	7.04	11,71	8,77	7.89	7.04	6/24/2015	10/2/2009	0.06	0.08
12.62% Merrill Lynch 3-Month T-Bill, 41.20% BB Aggregate Bond, 29.96% Russell 3000, 16.21% MSCI ACWI Index ex USA ND USD		3.08	7.91	7.91	12.04	8.72	7.46	-	-	-	-	-
Fidelity Freedom Index 2020 Instl Prem	FIWTX	3.29	8.39	8,39	13.07	9.63	8.08	7,78	6/24/2015	10/2/2009	0.08	0.08
FID FF Idx 2020 Comp Idx		3.35	8.68	8.68	13.23	9.75	8.68	-	-	-	-	-
8.19% Merrill Lynch 3-Month T-Bill, 38.39% BB Aggregate Bond, 35.14% Russell 3000, 18.28% MSCI ACWI Index ex USA ND USD		3.60	9.42	9.42	13.47	9.71	8.35	-	-	-	-	-
Fidelity Freedom Index 2025 Instl Prem	FFEDX	3.72	9.62	9.62	14.24	10.41	8.99	8.35	6/24/2015	10/2/2009	0.08	0.08
FID FF Idx 2025 Comp Idx		3.72	9.85	9,85	14.39	10.52	9,68	-	-	-	-	-
5.11% Merrill Lynch 3-Month T-Bill, 34.28% BB Aggregate Bond, 39.51% Russell 3000, 21.11% MSCI ACWI Index ex USA ND USD		4.05	10.82	10.82	14.75	10.58	9.13	-	-	-	-	-

O -	Ticker/	OTD —	VTD -		Annualize	d Returns		Since	Share Class	Strategy	Expense	e Ratio
Core Lineup	ID	QTR	YTD	1 Year	3 Year	5 Year	10 Year	Incept.	Inception	Inception	Gross	Net
Target Date Funds					-							
Fidelity Freedom Index 2030 Instl Prem	FFEGX	4.10	10.94	10.94	15.73	11.59	9.84	9.25	6/24/2015	10/2/2009	0.08	0.08
FID FF ldx 2030 Comp ldx		4.08	11.17	11.17	15.89	11.70	10.56	-	-	-	-	-
2.31% Merrill Lynch 3-Month T-Bill, 27.43% BB Aggregate Bond, 46.95% Russell 3000, 23.31% MSCI ACWI Index ex USA ND USD		4.77	13.01	13.01	16.58	11.83	10.27	-	-	-	-	-
Fidelity Freedom Index 2035 Instl Prem	FFEZX	5.04	13,80	13,80	18,02	13,05	10.97	10,36	6/24/2015	10/2/2009	0,08	0,08
FID FF ldx 2035 Comp ldx		4.98	14.02	14.02	18.17	13.16	11.77	-	-	-	-	-
0.04% Merrill Lynch 3-Month T-Bill, 17.54% BB Aggregate Bond, 56.08% Russell 3000, 26.34% MSCI ACWI Index ex USA ND USD		5.67	15.80	15.80	18.80	13.35	11.65	-	-	-	-	-
				I						T		
Fidelity Freedom Index 2040 Instl Prem	FFIZX	5.79	15.97	15.97	19.43	13.78	11.38	10.92	6/24/2015	10/2/2009	0.08	0.08
FID FF Idx 2040 Comp Idx		5.69	16.17	16.17	19.59	13.89	12.19	-	-	-	-	-
0.00% Merrill Lynch 3-Month T-Bill, 13.09% BB Aggregate Bond, 60.18% Russell 3000, 26.73% MSCI ACWI Index ex USA ND USD		6.05	16.98	16.98	19.68	13.94	12.20	-	-	-	-	-
										T		
Fidelity Freedom Index 2045 Instl Prem	FFOLX	5.80	15.97	15.97	19.43	13.78	11.45	10.92	6/24/2015	10/2/2009	0.08	0.08
FID FF Idx 2045 Comp Idx		5.69	16.18	16.18	19.59	13.89	12.28	-	-	-	-	-
0.00% Merrill Lynch 3-Month T-Bill, 12.87% BB Aggregate Bond, 59.95% Russell 3000, 27.18% MSCI ACWI Index ex USA ND USD		6.04	16.97	16.97	19.66	13.93	12.18	-	-	-	-	-
Filling to the correct of B	FEORY	F 70	15.00	45.00	10.11	10.70	44.50	10.00	0/04/0045	10/0/000	1 000	0.00
Fidelity Freedom Index 2050 Instl Prem FID FF Idx 2050 Comp Idx	FFOPX	5.79 5.69	15 . 98 16 . 18	15.98 16.18	19 . 44	13 . 79	11 . 50 12 . 33	10.92	6/24/2015	10/2/2009	0.08	0.08
FID FF lax 2000 Collip lax		3.09	10,10	10,10	19,39	13.09	12,33	-	-	-	-	
0.00% Merrill Lynch 3-Month T-Bill, 12.39% BB Aggregate Bond, 59.88% Russell 3000, 27.72% MSCI ACWI Index ex USA ND USD		6.04	17.00	17.00	19.69	13.95	12.20	-	-	-	-	-
Fidelity Freedom Index 2055 Instl Prem	FFLDX	5.75	15.92	15.92	19.42	13.78	11.60	10.92	6/24/2015	6/1/2011	0.08	0.08
FID FF Idx 2055 Comp Idx		5.69	16 . 18	16.18	19.59	13.89	12.47	-	-	-	-	-
0.00% Merrill Lynch 3-Month T-Bill, 12.19% BB Aggregate Bond, 59.59% Russell 3000, 28.22% MSCI ACWI Index ex USA ND USD		6.02	16.97	16.97	19.67	13.94	12.18	-	-	-	-	-

Core Lineup	Ticker/	QTR	YTD		Annualized	l Returns		Since	Share Class	Strategy	Expense	e Ratio
Cole Ellieup	ID	אוצ	טוז	1 Year	3 Year	5 Year	10 Year	Incept.	Inception	Inception	Gross	Net
Target Date Funds												
Fidelity Freedom Index 2060 Instl Prem	FFLEX	5.78	15.98	15.98	19.46	13.80	-	10.92	6/24/2015	8/5/2014	0.08	0.08
FID FF Idx 2060 Comp Idx		5.69	16.18	16.18	19.59	13.89	-	-	•	•	-	-
0.00% Merrill Lynch 3-Month T-Bill, 11.73% BB Aggregate Bond, 59.85% Russell 3000, 28.42% MSCI ACWI Index ex USA ND USD		6.05	17.07	17.07	19.74	13.99		,				-
Fidelity Freedom Index 2065 Instl Prm	FFIKX	5.83	15.96	15.96	-	-	-	16.48	6/28/2019	6/28/2019	0.08	0.08
FID FF ldx 2065 Comp ldx		5.69	16.18	16.18	-	-	-	-	-	-	-	-

Oars Lisaves	Ticker/	QTR	YTD		Annualized	d Returns		Since	Share Class	Strategy	Expense	Ratio
Core Lineup	ID			1 Year	3 Year	5 Year	10 Year	Incept.	Inception	Inception	Gross	Net
Money Market/Stable Value												
Vanguard Treasury Money Market Investor	VUSXX	0.00	0.01	0.01	0.87	1.04	0.55	2.31	12/14/1992	12/14/1992	0.09	0.09
TIAA Traditional		0.86	3.55	3.55	3.85	3.95	4.17	4.36	-	-	-	-
FTSE 3-Mo Treasury Bill		0.01	0.05	0.05	0.96	1.11	0.60	-	-	-	-	-
Core Fixed Income												
Vanguard Total Bond Market Index I	VBTIX	-0.08	-1.65	-1.65	4.83	3.59	2.87	4.95	9/18/1995	12/11/1986	0.04	0.04
CREF Bond Market R3	F00000VAW1	-0.22	-1.23	-1.23	5.14	3.85	3.18	3.16	3/1/1990	3/1/1990	0.21	0.21
BB Aggregate Bond		0.01	-1.54	-1.54	4.79	3.57	2.90	-	-	-	-	-
U.S. Government TIPS												
Vanguard Inflation-Protected Secs I	VIPIX	2.22	5.72	5.72	8.29	5.22	3.01	4.41	12/12/2003	6/29/2000	0.07	0.07
BB TIPS		2.36	5.96	5.96	8.44	5.34	3.09	-	-	-	-	-
Balanced												
CREF Social Choice R3	F00000VAW7	4.63	12.64	12.64	15.60	11.06	9.54	8.63	3/1/1990	3/1/1990	0.20	0.20
Russell 3000 Index		9.28	25.66	25.66	25.79	17.97	16.30					
1.48% Merrill Lynch 3-Month T-Bill, 37.87% BB Aggregate Bond, 44.95% Russell 3000, 15.69% MSCI ACWI Index ex USA ND USD		4.45	11.68	11.68	15.57	11.12	9.69	-	-	-	-	-

	T: -1/	OTD	VTD	YTD Annualized Returns				Circa	Chara Cha	Charles	F	D-fi-
Core Lineup	Ticker/	QTR	Y1D	4.37			100/	Since	Share Class	Strategy	Expense	
	ID			1 Year	3 Year	5 Year	10 Year	Incept.	Inception	Inception	Gross	Net
Large Cap Value	<u> </u>	ı	ı		1	ı	1	<u> </u>		1	T	
American Funds Washington Mutual R6	RWMGX	11.96	28.90	28.90	20.61	15.53	14.59	15.25	5/1/2009	7/31/1952	0.27	0.27
Russell 1000 Value Index		7.77	25.16	25.16	17.64	11.16	12.97	-	-	-	-	-
Large Cap Blend	•			•	1	1		1		•	T	
Hartford Core Equity R6	HAITX	10.24	24.62	24.62	25.51	18.92	17.36	15.18	3/31/2015	4/30/1998	0.38	0.38
Russell 1000 Index		9.78	26.45	26.45	26.21	18.43	16.54	-	-	-	-	-
Vanguard Institutional Index Instl PI	VIIIX	11.02	28.69	28.69	26.06	18.46	16.54	9.04	7/7/1997	7/31/1990	0.02	0.02
S&P 500 Index		11.03	28.71	28.71	26.07	18.47	16.55	-	-	-	-	-
Large Cap Growth												
T. Rowe Price Lrg Cp Gr I	TRLGX	6.14	23.18	23.18	30.24	26.00	20.84	12.78	10/31/2001	10/31/2001	0.56	0.56
Russell 1000 Growth Index		11.64	27.60	27.60	34.08	25.32	19.79	-	-	-	-	-
Mid Cap Blend	•			•	1	1		1		•	T	
Vanguard Mid Cap Index InstitutionalPlus	VMCPX	7.98	24.53	24.53	24.51	15.89	15.14	13.64	12/15/2010	5/21/1998	0.03	0.03
CRSP US Mid Cap TR USD		7.98	24.52	24.52	24.51	15.89	15.22	-	-	-	-	-
Small Cap Blend												
TIAA-CREF Small-Cap Blend ldx Inst	TISBX	2.17	14.89	14.89	20.11	12.15	13.42	11.38	10/1/2002	10/1/2002	0.06	0.06
TIAA-CREF Quant Small-Cap Equity Instl	TISEX	4.83	25.06	25.06	20.45	12.09	13.76	11.49	10/1/2002	10/1/2002	0.43	0.43
Russell 2000 Index		2.14	14.82	14.82	20.02	12.02	13.23	-		-	-	_
International Equity												
Vanguard Total Intl Stock Index I	VTSNX	2.12	8.68	8.68	13.71	9.93	7.71	6.08	11/29/2010	4/29/1996	0.08	0.08
American Funds Europacific Growth R6	RERGX	-1.13	2.84	2.84	17.95	12.87	10.01	10.06	5/1/2009	4/16/1984	0.46	0.46
MSCI ACWI ex USA NR		1.82	7.82	7.82	13.18	9.61	7.28	-	-	-	-	-
Global Equity												
Victory RS Global R6	RGGRX	8.66	22.84	22.84	23.52	17.39	14.85	19.97	5/2/2019	5/16/2011	0.98	0.57
MSCI ACWI NR		6.68	18.54	18.54	20.38	14.40	11.85	-	-	-	-	-

	Ticker/	QTR	YTD		Annualize	d Returns		Since	Share Class	Strategy	Expense	Ratio
Core Lineup	ID			1 Year	3 Year	5 Year	10 Year	Incept.	Inception	Inception	Gross	Net
Target Date Funds												
TIAA-CREF Lifecycle Index Ret Inc Instl	TRILX	2.67	7.14	7.14	11.47	8.30	7.08	7.13	9/30/2009	9/30/2009	0.22	0.10
Lifecycle Index Retirement Income Composite Benchmark		2.71	7.32	7.32	11.62	8.36	7.19	-	-	-	-	-
4.39% Merrill Lynch 3-Month T-Bill, 55.72% BB Aggregate Bond, 27.51% Russell 3000, 12.38% MSCI ACWI Index ex USA ND USD		2.78	6.74	6.74	11.53	8.34	7.14	-	-	-	-	-
TIAA-CREF Lifecycle Index 2010 Instl	TLTIX	2.62	6.95	6.95	11.44	8.36	7.47	7.46	9/30/2009	9/30/2009	0.22	0.10
Lifecycle Index 2010 Composite Benchmark		2.62	7.14	7.14	11.59	8.45	7.59	-	-	-	-	-
6.79% Merrill Lynch 3-Month T-Bill, 50.83% BB Aggregate Bond, 27.97% Russell 3000, 14.41% MSCI ACWI Index ex USA ND USD		2.86	7.11	7.11	11.71	8.47	7.25	-	-	-	-	-
TIAA-CREF Lifecycle Index 2015 Instl	TLFIX	2,93	7.85	7,85	12,32	8,99	8,10	7,98	9/30/2009	9/30/2009	0.20	0,10
Lifecycle Index 2015 Composite Benchmark		2.94	8.03	8.03	12.46	9.07	8.22	-	-	-	-	-
6.30% Merrill Lynch 3-Month T-Bill, 46.21% BB Aggregate Bond, 31.95% Russell 3000, 15.54% MSCI ACWI Index ex USA ND USD		3.25	8 . 26	8.26	12.65	9.13	7.84	-	-	-	-	-
TIAA-CREF Lifecycle Index 2020 Instl	TLWIX	3.27	8.75	8.75	13.19	9.67	8.85	8.58	9/30/2009	9/30/2009	0.19	0.10
Lifecycle Index 2020 Composite Benchmark		3.24	8.90	8.90	13.34	9.75	8.96	-	-	-	-	-
5.59% Merrill Lynch 3-Month T-Bill, 40.72% BB Aggregate Bond, 35.66% Russell 3000, 18.03% MSCI ACWI Index ex USA ND USD		3.64	9.48	9.48	13.67	9.83	8.47	-	-	-	-	-
TIAA-CREF Lifecycle Index 2025 Instl	TLQIX	3.72	10.14	10.14	14.51	10.61	9.73	9.29	9/30/2009	9/30/2009	0.19	0.10
Lifecycle Index 2025 Composite Benchmark		3.69	10.29	10.29	14.64	10.68	9.83	-	-	-	-	-
4.07% Merrill Lynch 3-Month T-Bill, 34.55% BB Aggregate Bond, 41.40% Russell 3000, 19.98% MSCI ACWI Index ex USA ND USD		4.20	11.20	11.20	15.09	10.81	9.35	-	-	-	-	-
TIAA-CREF Lifecycle Index 2030 Instl	TLHIX	4.25	11.67	11.67	15.86	11.57	10.61	10.00	9/30/2009	9/30/2009	0.18	0.10
Lifecycle Index 2030 Composite Benchmark		4.19	11.80	11.80	15.99	11.63	10.71	-	-	-	-	-
3.56% Merrill Lynch 3-Month T-Bill, 27.16% BB Aggregate Bond, 47.14% Russell 3000, 22.13% MSCI ACWI Index ex USA ND USD		4.77	12.97	12.97	16.47	11.76	10.21	-		-	-	-

	Ticker/	QTR	YTD		Annualize	d Returns		Since	Share Class	Strategy	Expense	Ratio
Core Lineup	ID			1 Year	3 Year	5 Year	10 Year	Incept.	Inception	Inception	Gross	Net
Target Date Funds												
TIAA-CREF Lifecycle Index 2035 Instl	TLYIX	4.74	13.21	13.21	17.18	12.49	11.45	10.68	9/30/2009	9/30/2009	0.18	0.10
Lifecycle Index 2035 Composite Benchmark		4.69	13.32	13.32	17.32	12.56	11.55	-	-	-	-	-
2.44% Merrill Lynch 3-Month T-Bill, 20.41% BB Aggregate Bond, 52.93% Russell 3000, 24.21% MSCI ACWI Index ex USA ND USD		5.34	14.75	14.75	17.88	12.72	11.09	-	-	-	-	-
TIAA-CREF Lifecycle Index 2040 Instl	TLZIX	5.26	14.89	14.89	18.48	13.40	12.13	11.21	9/30/2009	9/30/2009	0.17	0.10
Lifecycle Index 2040 Composite Benchmark		5.20	15.02	15.02	18.63	13.46	12.22	-	-	-	-	-
1.85% Merrill Lynch 3-Month T-Bill, 13.78% BB Aggregate Bond, 58.49% Russell 3000, 25.88% MSCI ACWI Index ex USA ND USD		5.88	16.46	16.46	19.18	13.61	11.90	-	-	-	-	-
TIAA-CREF Lifecycle Index 2045 Instl	TLXIX	5.82	16,65	16,65	19,76	14.14	12,53	11,53	9/30/2009	9/30/2009	0.17	0,10
Lifecycle Index 2045 Composite Benchmark		5.71	16.76	16.76	19.89	14.21	12.62	-	-	-	-	-
0.00% Merrill Lynch 3-Month T-Bill, 10.90% BB Aggregate Bond, 63.17% Russell 3000, 25.94% MSCI ACWI Index ex USA ND USD		6.31	17.74	17.74	20.23	14.31	12.55	-	-	-	-	-
TIAA-CREF Lifecycle Index 2050 Instl	TLLIX	6.00	17.14	17.14	20.05	14.35	12.64	11.63	9/30/2009	9/30/2009	0.17	0.10
Lifecycle Index 2050 Composite Benchmark		5.91	17.28	17.28	20.21	14.41	12.74	-	-	-	-	-
0.00% Merrill Lynch 3-Month T-Bill, 10.03% BB Aggregate Bond, 64.14% Russell 3000, 25.83% MSCI ACWI Index ex USA ND USD		6.40	18.01	18.01	20.42	14.43	12.67	-	-	-	-	-
TIAA-CREF Lifecycle Index 2055 Instl	TTIIX	6.07	17.39	17.39	20.25	14.47	12.73	10.84	4/29/2011	4/29/2011	0.18	0.10
Lifecycle Index 2055 Composite Benchmark		5.99	17.55	17.55	20.41	14.55	12.83	-	-	-	-	-
0.00% Merrill Lynch 3-Month T-Bill, 9.19% BB Aggregate Bond, 64.89% Russell 3000, 25.92% MSCI ACWI Index ex USA ND USD		6.47	18.23	18.23	20.58	14.54	12.78	-	-	-	-	-
TIAA-CREF Lifecycle Index 2060 Instl	TVIIX	6.14	17.64	17.64	20.44	14.61	-	11.40	9/26/2014	9/26/2014	0.20	0.10
Lifecycle Index 2060 Composite Benchmark		6.07	17.83	17.83	20.62	14.69	-	-	-	-	-	-
0.00% Merrill Lynch 3-Month T-Bill, 7.83% BB Aggregate Bond, 64.89% Russell 3000, 27.28% MSCI ACWI Index ex USA ND USD		6.50	18.37	18.37	20.68	14.62	-	-	-	-	-	-

Maryland ORP Recommendation Summary

Maryland ORP Recommendation Summary

Fidelity Recommendations

Recordkeeper Fee Reduction

Approve Fidelity's recordkeeper administrative fee reduction from \$45/participant to \$42/participant.

Plan investment lineup improvement:

Remove BlackRock Equity Dividend Instl (MADVX) and replace with Columbia Dividend Income Fund (CDDYX).

TIAA Recommendations

Recordkeeper Fee Reduction

Approve TIAA's recordkeeper administrative fee reduction from \$45/participant to \$28/participant.

Share class conversion:

- Approve the share class change for the Vanguard Total Intl Stock Index Fund from VTSNX to VTPSX.
- Approve the share class change for CREF Bond Market Account in RC contract from class R3 to class R4.
- Approve the share class change for CREF Social Choice Account in RC contract from class R3 to class R4.

Recordkeeper Administrative Fee History

Fidelity Pricing History

- Fidelity moved from fixed bps pricing (15bps) to fixed dollar pricing at \$45 per participant on October 1, 2018.
- Fidelity received a pricing review request from MSRA and FIRM in Sep 2021. After negotiation Fidelity proposed a new price of \$42 per participant, a decrease of 7%.
- The effective date of \$42 new participant fee will be July 1, 2022.

Q1 2016 Bundled Pricing equated to 15bps Q1 2018
Fixed Dollar Pricing \$45/participant
effective 10/1/2018

0

Parallel Tribing equates to 15bps effective 10/1/2018

O O O O O

Q4 2016

Fixed Bps Pricing 15bps
Effective 10/1/2016

Proposed \$42/participant effective 7/1/2022

TIAA Pricing History

0

- TIAA moved from fixed bps pricing (9.5bps) to fixed dollar pricing at \$45 per participant on Jan 1, 2018.
- TIAA received a pricing review request from MSRA and FIRM in Sep 2021. After negotiation TIAA proposed a new price of \$28 per participant, a decrease of 38%.
- The effective date of \$28 new participant fee will be July 1, 2022.

Q1 2013

Fixed Bps Pricing
14.4bps
Fixed Dollar Pricing
\$45/participant

Effective 1/1/2013

Effective 1/1/2018

Q1 2016
Fixed Bps Pricing 9.5bps
Effective 1/1/2016

0

Q3 2022
Fixed Dollar Pricing
Proposed \$28/participant
effective 7/1/2022

0

Fidelity Recommendations

- 1. Approve Fidelity's recordkeeper administrative fee reduction from \$45/participant to \$42/participant.
- 2. Remove BlackRock Equity Dividend Instl Fund (MADVX) and replace with Columbia Dividend Income Fund (CDDYX).
 - a. BlackRock Equity Dividend Instl Fund has underperformed the Russell 1000 Value Index benchmark for 1,3 and 10-year annualized periods.
 - b. Columbia Dividend Income Fund is rated as five-star by Morningstar and outperformed the Russell 1000 Value Index for 1, 3, 5, and 10-year annualized periods with a lower expense ratio than BlackRock Equity Dividend Instl Fund (0.56% vs. 0.71%). The Columbia Dividend Income Funds employs a fundamentally driven bottom-up approach to investing and the investment process focuses on companies that the team believes have the potential to generate strong and sustainable free cash flow from operations. The focus on strong free cash flow and quality balance sheet, in addition to the utilization of a quantitative stock selection approach, is expected to identify high quality value orientated investment opportunities and capture their full or fair return potential in long-term investment horizon.
 - c. Assets and future contributions should be mapped from the BlackRock Equity Dividend InstI Fund (MADVX) to the Columbia Dividend Income Fund (CDDYX).

TIAA Recommendations

- 1. Approve TIAA's recordkeeper administrative fee reduction from \$45/participant to \$28/participant.
- 2. Approve the share class change for the Vanguard Total Intl Stock Index Fund from VTSNX to VTPSX.
 - a. Replacement is recommended due to the expense ratio reduction from 0.08% to 0.07%.
 - b. VTPSX has better 5yr and 10yr annualized performance than VTSNX as of 12/31/2021.
 - c. Assets and future contributions of this Fund should be mapped to the new share class VTPSX.
 - d. The strategy and the manager of both funds are the same.

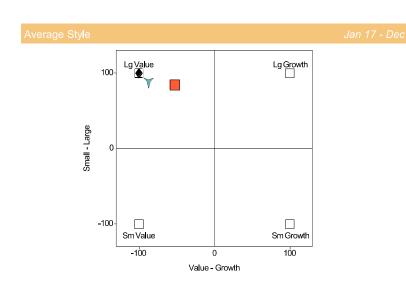
Fund	Ticker		Annualize	d Returns		Net Expense Ratio
		1yr	3yr	5yr	10yr	·
Vanguard Total Intl Stock ldx InstlPls	VTPSX	8.68	13.71	9.94	7.72	0.07
Vanguard Total Intl Stock Index I	VTSNX	8.68	13.71	9.93	7.71	0.08

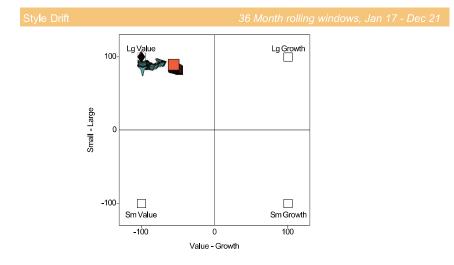
- 3. Approve the share class change for CREF Bond Market Account in RC contract from class R3 to class R4.
 - a. The total annual expense ratio for CREF Bond Market R3 is 21bps, for CREF Bond Market R4 is 9bps. Changing from class R3 to class R4 represents a 12bps reduction in administrative and distribution expenses of CREF Bond Market Account.
 - b. Class R3 provides 10bps revenue sharing while Class R4 provides zero revenue share.
 - c. Overall, changing from class R3 to class R4 represents a 2bps net reduction on CREF Bond Market Account annual fees.
- 4. Approve the share class change for CREF Social Choice Account in RC contract from class R3 to class R4.
 - a. The total annual expense ratio for CREF Social Choice R3 is 19.5bps, for CREF Social Choice R4 share is 7.5bps. Changing from class R3 to class R4 represents a 12bps reduction in administrative and distribution expenses of CREF Social Choice Account.
 - b. Class R3 provides 10bps revenue sharing while Class R4 provides zero revenue share.
 - c. Overall, changing from class R3 to class R4 represents a 2bps net reduction on CREF Social Choice Account annual fees.

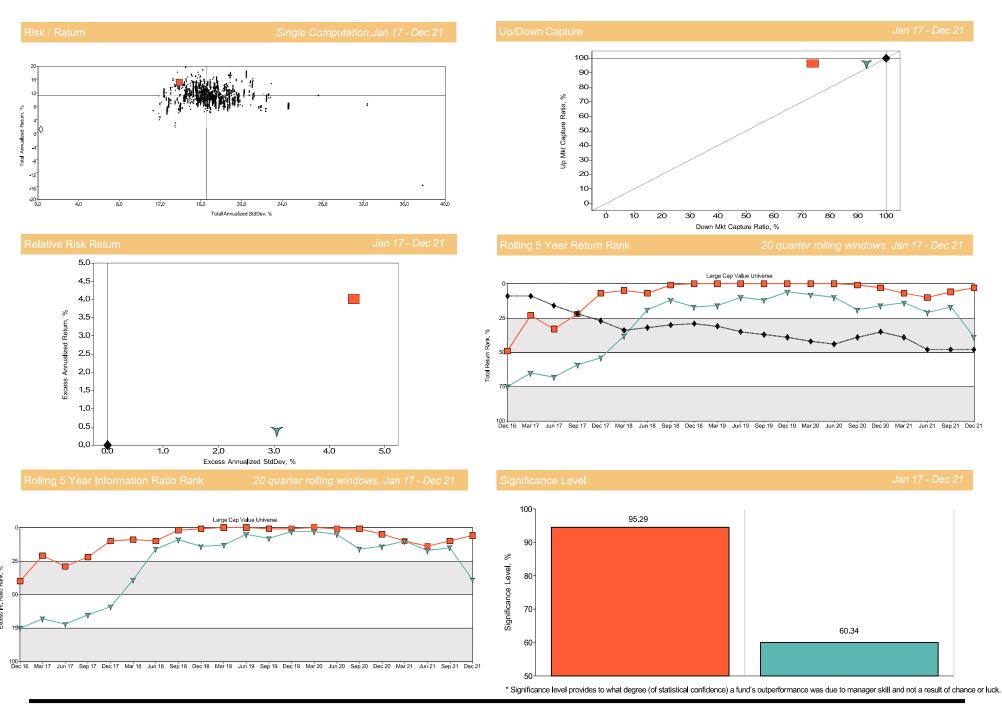
	QTR	YTD	1 Yr	3 Yr Ann.	5 Yr Ann.	10 Yr Ann.	Since Inception	Manager Name	Manager Tenure (Years)	Fund Inception	Net Exp. Ratio	Gross Exp. Ratio
Columbia Dividend Income Inst3	10.76	26.45	26.45	20.53	15.18	14.15	14.55	Scott L. Davis	20.18	03/04/1998	0.56	0.56
BlackRock Equity Dividend Instl	4.61	20.35	20.35	16.84	11.57	11.87	10.20	Tony DeSpirito	7.41	11/29/1988	0.71	0.71
Russell 1000 Value Index	7.77	25.16	25.16	17.64	11.16	12.97						
Large Cap Value Average	8.01	25.41	25.41	17.42	11.15	12.09					1.27	0.95

	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD
Columbia Dividend Income Inst3	11.19	28.89	12.89	0.84	13.63	20.95	- 4.28	28.31	7.91	26.45
▼ BlackRock Equity Dividend Instl	12.18	24.67	9.35	-0.10	16.21	16.76	-7.17	27.52	3.93	20.35
♦ Russell 1000 Value Index	17.51	32.53	13.45	-3.83	17.34	13.66	-8.27	26.54	2.80	25.16
Large Cap Value Average	14.69	31.28	10.45	-3.21	15.01	15.40	-9.10	25.58	2.91	25.41

		Style				Risk/Return	Peer	Group	Qual.		Sc	Score		
Scorecard - Active	Ticker/ I D	Style	Sty l e Drift	R²	Risk/ Return	Up/ Down	Info Ratio	Return Rank	Info Ratio Rank	(2pt. max)	Q4 2021	Q3 2021	Q2 2021	Q1 2021
Columbia Dividend Income Inst3	CDDYX	1	1	1	1	1	1	1	1	2	10	10	10	10
		-52.49/ 84.38	4.52	94.46	13.90/ 15.18	96.41/ 73.81	0.90	4.00	7.00		LCV	LCV	LCV	LCV
BlackRock Equity Dividend InstI	MADVX	1	1	1	1	1	1	1	1	2	10	10	10	10
		-87.27/ 89.00	7.98	96.63	15.86/ 11.57	96.60/ 93.21	0.13	20.00	19.00		LCV	LCV	LCV	LCV

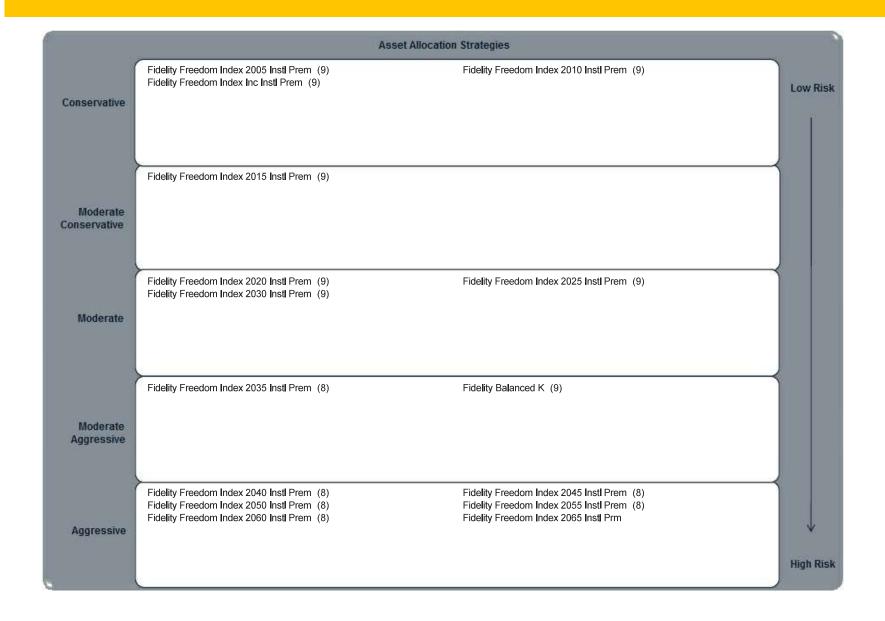




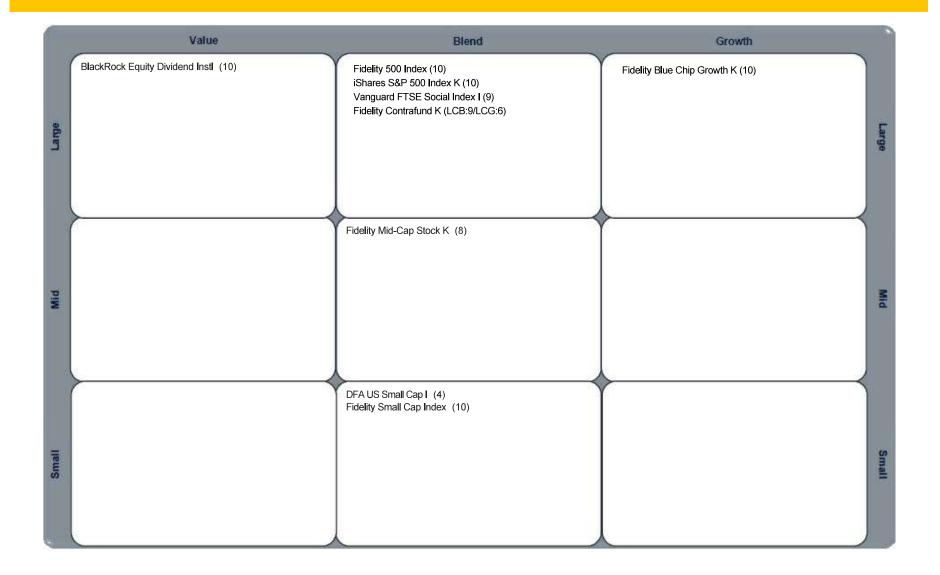


Fidelity Investment Lineup Analysis

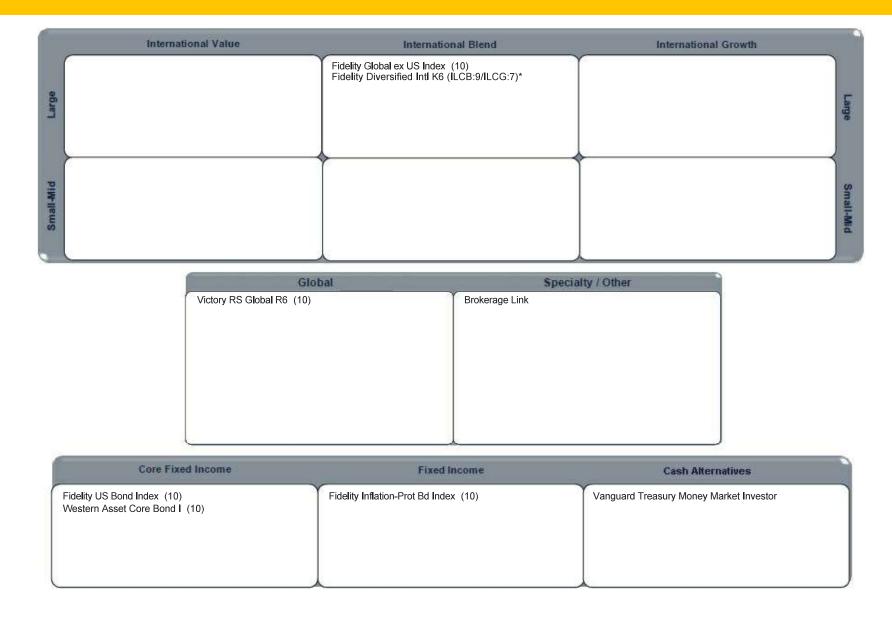
Style Box - Fidelity



Style Box - Fidelity

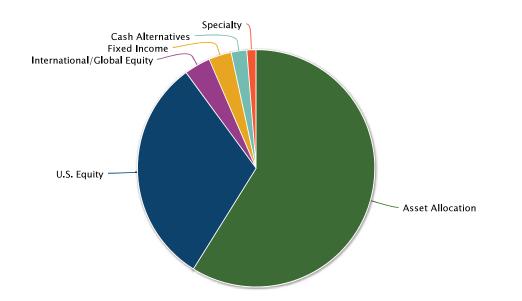


Style Box - Fidelity



^{*}Fidelity Diversified International K6 does not have a five-year performance track record; therefore, our system does not provide scoring. Fidelity Diversified International K's scores are inserted above as a proxy so consideration for tracking errors exists between the two funds which are attributed to differences in expense ratios and cash flows.

Plan Allocation by Investment Type - Fidelity



Investment Type	Assets	Percentage
Asset Allocation	\$472,058,321.68	58.9%
U.S. Equity	\$249,233,390.32	31.1%
International/Global Equity	\$28,618,091.17	3.6%
Fixed Income	\$24,796,151.59	3.1%
Cash Alternatives	\$17,115,905.12	2.1%
Specialty	\$10,123,245.38	1.3%
Total	\$801,945,105.26	100%
as of 12/31/2021		

Plan Allocation by Investment Type - Fidelity

Investment Name	Asset Class	Amount	Percentage	Score
Money Market		\$17,115,905		
Vanguard Treasury Money Market Investor	MM	\$17,115,905	2.1 %	N/A*
Fixed Income		\$24,796,152		
Fidelity US Bond Index	CFI-P	\$12,626,949	1.6 %	10
Western Asset Core Bond I	CFI	\$6,614,425	0.8 %	10
Fidelity Inflation-Prot Bd Index	UGT-P	\$5,554,778	0.7 %	10
U.S. Equity		\$249,233,390		
BlackRock Equity Dividend InstI	LCV	\$11,741,497	1.5 %	10
Fidelity 500 Index	LCB-P	\$64,231,851	8.0 %	10
Vanguard FTSE Social Index I	LCB-P	\$9,096,841	1.1 %	9
Fidelity Contrafund K	LCB	\$48,981,636	6.1 %	9
Fidelity Blue Chip Growth K	LCG	\$68,142,286	8.5 %	10
Fidelity Mid-Cap Stock K	MCB	\$25,487,901	3.2 %	8
DFA US Small Cap I	SCB	\$13,828,839	1.7 %	4
Fidelity Small Cap Index	SCB-P	\$7,722,540	1.0 %	10
International/Global Equity		\$28,618,091		
Fidelity Diversified Intl K6**	ILCB	\$19,156,419	2.4 %	9**
Fidelity Global ex US Index	IE-P	\$4,846,329	0.6 %	10
Victory RS Global R6	GE	\$4,615,343	0.6 %	10

^{*}Cash Equivalents (e.g., money market fund) and some specialty funds are not scored by the Scorecard System.

^{**}Fidelity Diversified International K6 does not have a five-year performance track record; therefore, our system does not provide scoring. Fidelity Diversified International K's scores are inserted above as a proxy so consideration for tracking errors exists between the two funds which are attributed to differences in expense ratios and cash flows.

Plan Allocation by Investment Type - Fidelity

Investment Name	Asset Class	Amount	Percentage	Score
Asset Allocation		\$472,058,322		
Fidelity Balanced K	MA	\$27,147,756	3.4 %	9
Fidelity Freedom Index Inc Instl Prem	CON	\$13,575,282	1.7 %	9
Fidelity Freedom Index 2005 InstI Prem	CON	\$890,826	0.1 %	9
Fidelity Freedom Index 2010 InstI Prem	CON	\$2,877,655	0.4 %	9
Fidelity Freedom Index 2015 InstI Prem	MC	\$8,414,654	1.0 %	9
Fidelity Freedom Index 2020 InstI Prem	MOD	\$23,480,457	2.9 %	9
Fidelity Freedom Index 2025 InstI Prem	MOD	\$37,175,467	4.6 %	9
Fidelity Freedom Index 2030 InstI Prem	MOD	\$48,575,727	6.1 %	9
Fidelity Freedom Index 2035 Instl Prem	MA	\$59,645,282	7.4 %	8
Fidelity Freedom Index 2045 InstI Prem	AGG	\$69,641,236	8.7 %	8
Fidelity Freedom Index 2040 InstI Prem	AGG	\$87,885,523	11.0 %	8
Fidelity Freedom Index 2055 Instl Prem	AGG	\$26,664,973	3.3 %	8
Fidelity Freedom Index 2050 InstI Prem	AGG	\$60,069,235	7.5 %	8
Fidelity Freedom Index 2060 InstI Prem	AGG	\$5,396,656	0.7 %	8
Fidelity Freedom Index 2065 InstI Prm	AGG	\$617,593	0.1 %	N/A*
Brokerage		\$10,123,245		
Brokerage Link	SPC	\$10,123,245	1.3 %	N/A**
Total		\$801,945,105	100.0 %	

^{*}Asset allocation funds with less than 5-year history are not scored by the Scorecard System.

^{**}Some specialty funds are not scored by the Scorecard System.

2020 Plan Activity - Fidelity

Fund	Beginning Balance 1/1/2020	Contributions	Disbursements	Net Exchanges	Other*	Market Action/Other Transactions**	Ending Balance 12/31/2020
Fidelity Balanced K	\$ 18,311,924.80	\$ 792,610.81	\$ (720,465.59)	\$ 285,097.66	\$ 46,538.72	\$ 4,092,431.62	\$ 22,808,138.02
Fidelity Blue Chip Growth K	\$ 30,515,909.95	\$ 1,864,373.75	\$ (1,456,307.97)	\$ 3,712,229.84	\$ 13,272.43	\$ 20,024,414.05	\$ 54,673,892.05
Fidelity Contrafund K	\$ 31,384,695.22	\$ 1,227,361.91	\$ (1,343,299.90)	\$ (807,452.92)	\$ 44,655.42	\$ 10,084,676.95	\$ 40,590,636 <u>.</u> 68
Fidelity Mid-Cap Stock K	\$ 17,780,153.83	\$ 752,680.20	\$ (409,554.39)	\$ (320,091.38)	\$ 672.75	\$ 1,943,610.69	\$ 19,747,471.70
Fidelity US Bond Index	\$ 10,850,593.55	\$ 741,565.07	\$ (373,071.30)	\$ 1,434,108.10	\$ 74,878.74	\$ 896,623.28	\$ 13,624,697.44
Fidelity 500 Index	\$ 40,256,177.42	\$ 2,959,303.80	\$ (699,966.85)	\$ (3,442,589.08)	\$ 55,577.87	\$ 6,924,823.94	\$ 46,053,327.10
Fidelity Global ex US Index	\$ 2,824,951.41	\$ 309,398.59	\$ (32,295.23)	\$ 70,145.26	\$ 18,818 <u>.</u> 67	\$ 370,417.99	\$ 3,561,436.69
Fidelity Small Cap Index	\$ 4,342,241.21	\$ 375,445.91	\$ (85,782.41)	\$ (301,137.79)	\$ 21,827.50	\$ 921,827.96	\$ 5,274,422.38
Fidelity Inflation-Prot Bd Index	\$ 2,920,957.10	\$ 180,662.40	\$ (72,493.51)	\$ 844,484.21	\$ -	\$ 346,937.95	\$ 4,220,548.15
Fidelity Freedom Index Inc Instl Prem	\$ -	\$ 1,265,540.52	\$ (22,100.41)	\$ 9,850,945.13	\$ -	\$ 420,177.10	\$ 11,514,562 <u>.</u> 34
Fidelity Freedom Index 2005 Instl Prem	\$ -	\$ 9,111.88	\$ (345.30)	\$ 851,465.15	\$ -	\$ 42,129.88	\$ 902,361.61
Fidelity Freedom Index 2010 Instl Prem	\$ -	\$ 44,943.40	\$ (7,063.39)	\$ 2,527,922.46	\$ -	\$ 177,011.08	\$ 2,742,813.55
Fidelity Freedom Index 2015 Inst Prem	\$ -	\$ 100,599.90	\$ (127,658.41)	\$ 7,359,284.29	\$ -	\$ 591,861.34	\$ 7,924,087.12
Fidelity Freedom Index 2020 Instl Prem	\$ -	\$ 344,152.36	\$ (403,615.79)	\$ 20,794,240.99	\$ 635,185.79	\$ 2,047,115.42	\$ 23,417,078.77
Fidelity Freedom Index 2025 Instl Prem	\$ -	\$ 535,984.96	\$ (102,616.57)	\$ 29,848,501.96	\$ -	\$ 3,198,125.60	\$ 33,479,995.95
Fidelity Freedom Index 2030 Instl Prem	\$ -	\$ 741,118.60	\$ (143,286.34)	\$ 36,495,896.41	\$ -	\$ 4,458,565.67	\$ 41,552,294.34
Fidelity Freedom Index 2035 Instl Prem	\$ -	\$ 841,656.04	\$ (1,154,750.96)	\$ 43,360,958.46	\$ -	\$ 6,347,549.35	\$ 49,395,412.89
Fidelity Freedom Index 2040 Instl Prem	\$ -	\$ 1,136,542.67	\$ (657,963.51)	\$ 61,442,306.96	\$ -	\$ 10,001,822.34	\$ 71,922,708.46
Fidelity Freedom Index 2045 Instl Prem	\$ -	\$ 1,257,641.75	\$ (126,716.39)	\$ 48,503,003.62	\$ -	\$ 7,939,140.15	\$ 57,573,069.13
Fidelity Freedom Index 2050 Instl Prem	\$ -	\$ 1,379,255.71	\$ (333,422.48)	\$ 40,336,645.15	\$ 314.83	\$ 6,656,428.57	\$ 48,039,221.78
Fidelity Freedom Index 2055 Instl Prem	\$ -	\$ 857,325.74	\$ (137,310.59)	\$ 16,573,609.17	\$ -	\$ 2,749,149.59	\$ 20,042,773.91
Fidelity Freedom Index 2060 Instl Prem	\$ -	\$ 249,916.87	\$ (1,987.98)	\$ 2,881,720.56	\$ -	\$ 493,777.37	\$ 3,623,426.82
Fidelity Diversified Intl K6	\$ 14,900,710.38	\$ 726,072.82	\$ (462,472.42)	\$ (1,125,604.68)	\$ 42,880.05	\$ 2,686,291.88	\$ 16,767,878.03
Fidelity Freedom Income K	\$ 8,100,998.57	\$ 3,005,973.90	\$ (190,486.01)	\$ (11,253,031.78)	\$ -	\$ 336,545.32	\$ -
Fidelity Freedom 2005 K	\$ 892,648.91	\$ 43,592.79	\$ (141,847.45)	\$ (834,483.78)	\$ -	\$ 40,089.53	\$ -
Fidelity Freedom 2010 K	\$ 2,630,334.37	\$ 153,158.60	\$ (95,258.17)	\$ (2,774,315.65)	\$ -	\$ 86,080.85	\$ -
Fidelity Freedom 2015 K	\$ 7,066,060.00	\$ 389,683.53	\$ (485,892.80)	\$ (7,211,184.03)	\$ -	\$ 241,333.30	\$ -
Fidelity Freedom 2020 K	\$ 20,118,845.38	\$ 1,177,818.57	\$ (1,189,327.85)	\$ (20,700,918.08)	\$ 15,641.86	\$ 577,940.12	\$ -
Fidelity Freedom 2025 K	\$ 29,321,512.83	\$ 1,813,782.81	\$ (584,267.33)	\$ (31,330,834.09)	\$ 643.06	\$ 779,162.72	\$ -
Fidelity Freedom 2030 K	\$ 35,955,846.42	\$ 2,529,563.61	\$ (1,021,029.90)	\$ (38,242,437.39)	\$ 3,540.31	\$ 774,516.95	\$ -
Fidelity Freedom 2035 K	\$ 41,198,260.21	\$ 2,769,902.84	\$ (1,028,768.42)	\$ (43,432,179.37)	\$ -	\$ 492,784.74	\$ -
Fidelity Freedom 2040 K	\$ 60,425,842.43	\$ 4,076,674.14	\$ (1,581,530.28)	\$ (63,170,428.06)	\$ 1,011.15	\$ 248,430.62	\$ -
Fidelity Freedom 2045 K	\$ 46,366,682.65	\$ 4,117,310.44	\$ (1,371,158.50)	\$ (49,572,984.45)	\$ 8,710.45	\$ 451,439.41	\$ -

^{*}Includes transfer of assets to Fidelity from another provider
**Includes investment-level dividends, interest, gains/losses, fees, adjustments; realized gains, losses, dividends, forfeitures, etc.

2020 Plan Activity – Fidelity Continued...

Fund	В	eginning Balance 1/1/2020		Contributions		Disbursements	Net Exchanges	Other*	Market Action/Other Transactions**	Ending Balance 12/31/2020
Fidelity Freedom 2050 K	\$	36,943,075.76	\$	4,728,112.91	\$	(820,554.13)	\$ (41,293,383.44)	\$ 4,076.59	\$ 438,672 <u>.</u> 31	\$ =
Fidelity Freedom 2055 K	\$	14,290,206.14	\$	2,896,260.70	\$	(407,335.86)	\$ (17,003,438.43)	\$ -	\$ 224,307.45	\$ =
Fidelity Freedom 2060 K	\$	2,278,501.50	\$	858,211.57	\$	(114,321.13)	\$ (3,082,260.44)	\$ -	\$ 59,868.50	\$ -
Fidelity Freedom 2065 K	\$	2,516.13	\$	11,449.28	\$	(1.56)	\$ (13,567.23)	\$ -	\$ (396.62)	\$ -
Fidelity Freedom Index 2065 Instl Prm	\$	-	\$	14,452.75	\$	-	\$ 41,522.18	\$ -	\$ 5,043.32	\$ 61,018.25
Brokerage Link	\$	4,848,935.19	\$	-	\$	-	\$ 2,686,221.46	\$ -	\$ 1,389,829.26	\$ 8,924,985.91
Vanguard FTSE Social Index Admiral	\$	4,842,777.82	\$	294,532.62	\$	(102,437.60)	\$ (5,320,357.21)	\$ -	\$ 285,484.37	\$ -
Western Asset Core Bond I	\$	5,878,457.63	\$	335,175.55	\$	(408,870.68)	\$ 828,439.69	\$ 1,189.57	\$ 544,534.75	\$ 7,178,926.51
AQR Global Equity R6	\$	3,738,361.69	\$	160,048.85	\$	(78,174.79)	\$ (3,586,878.62)	\$ -	\$ (233,357.13)	\$ -
DFA US Small Cap I	\$	10,002,618.37	\$	514,627.83	\$	(178,445.96)	\$ (986,720.74)	\$ 41,962.40	\$ 925,115.98	\$ 10,319,157.88
Vanguard FTSE Social Index I	\$	-	\$	85,753.31	\$	(5,763.59)	\$ 5,512,846.25	\$ 1,123.90	\$ 852,666.47	\$ 6,446,626.34
Victory RS Global R6	\$	-	\$	38,560.17	\$	(78,503.40)	\$ 2,918,175.38	\$ -	\$ 480,849.73	\$ 3,359,081.88
BlackRock Equity Dividend Instl	\$	9,508,710.24	\$	474,111.76	\$	(313,626.03)	\$ (714,025.02)	\$ 41,962.40	\$ 323,186.14	\$ 9,320,319.49
Vanguard Treasury Money Market Investor	\$	13,018,529.34	\$	817,263.42	\$	(2,958,764.57)	\$ 7,360,533.32	\$ -	\$ 13,778.47	\$ 18,251,339.98
Total	\$ 5	31,518,036.46	\$ 4	49,999,287.61	\$(22,030,913.70)	\$ 0.00	\$ 1,074,484.46	\$ 102,752,816.31	\$ 663,313,711.13

^{*} Includes transfer of assets to Fidelity from another provider
** Includes investment-level dividends, interest, gains/losses, fees, adjustments; realized gains, losses, dividends, forfeitures, etc.

2021 Plan Activity - Fidelity

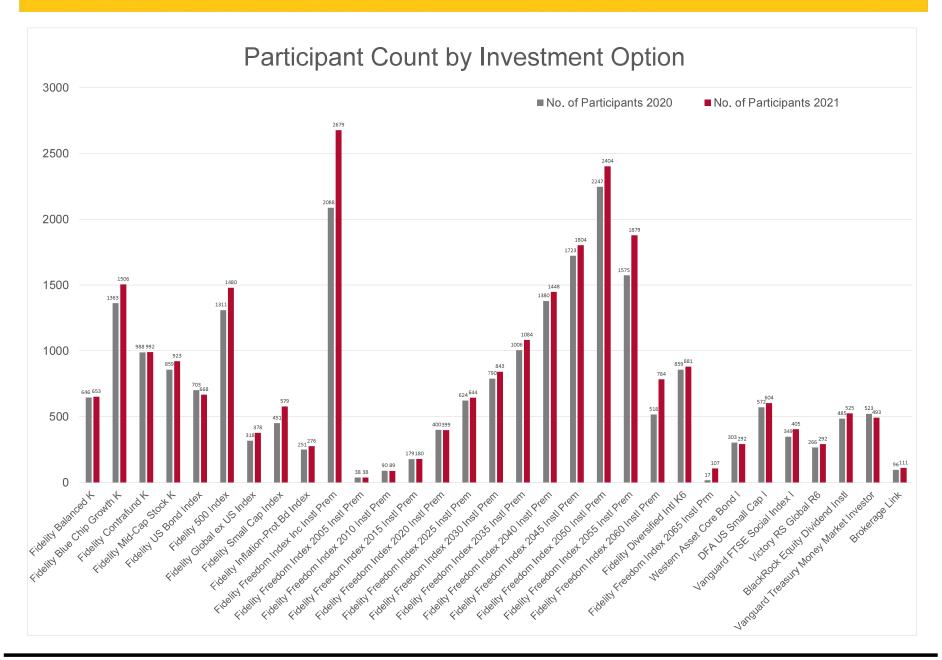
Fund	Beginning Balance 1/1/2021	Contributions		Disbursements	1	Net Exchanges	Other*	Market Action/Other Transactions**	Ending Balance 12/31/2021
Fidelity Balanced K	\$ 22,808,138.02	\$ 839,957.38	\$	(902,168.28)	\$	176,667.86	\$ 28,856.86	\$ 4,196,304.28	\$ 27,147,756.12
Fidelity Blue Chip Growth K	\$ 54,673,892.05	\$ 2,503,501.00	\$	(1,764,470.77)	\$	(30,033.30)	\$ 51,289.76	\$ 12,708,107.52	\$ 68,142,286.25
Fidelity Contrafund K	\$ 40,590,636.68	\$ 1,261,783.00	\$	(837,319.71)	\$	(1,961,686.94)	\$ 60,953.36	\$ 9,867,269.61	\$ 48,981,636.00
Fidelity Mid-Cap Stock K	\$ 19,747,471.70	\$ 756,309.17	\$	(902,042.00)	\$	166,325.79	\$ 37,428.52	\$ 5,682,407.41	\$ 25,487,900.59
Fidelity US Bond Index	\$ 13,624,697.44	\$ 680,051.30	\$	(197,808.16)	\$	(1,267,119.52)	\$ 28,043.19	\$ (240,915.33)	\$ 12,626,948.92
Fidelity 500 Index	\$ 46,053,327.10	\$ 3,169,076.30	\$	(1,298,476.71)	\$	2,570,713.27	\$ 444.28	\$ 13,736,766.28	\$ 64,231,850.52
Fidelity Global ex US Index	\$ 3,561,436.69	\$ 349,534.50	\$	(132,805.62)	\$	766,866.21	\$ -	\$ 301,297.34	\$ 4,846,329.12
Fidelity Small Cap Index	\$ 5,274,422.38	\$ 467,857.36	\$	(473,882.33)	\$	1,589,868.44	\$ 3,366.99	\$ 860,906.77	\$ 7,722,539.62
Fidelity Inflation-Prot Bd Index	\$ 4,220,548.15	\$ 186,952.64	\$	(256,156.95)	\$	1,112,560.99	\$ -	\$ 290,873.27	\$ 5,554,778.10
Fidelity Freedom Index Inc Instl Prem	\$ 11,514,562.34	\$ 2,986,773.82	\$	(488,392.35)	\$	(750,057.70)	\$ -	\$ 312,396.14	\$ 13,575,282.24
Fidelity Freedom Index 2005 Instl Prem	\$ 902,361.61	\$ 47,625.95	\$	(70,811.03)	\$	(18,201.59)	\$ -	\$ 29,850.81	\$ 890,825.75
Fidelity Freedom Index 2010 Instl Prem	\$ 2,742,813.55	\$ 150,261.96	\$	(138,638.64)	\$	(17,316.82)	\$ -	\$ 140,534.84	\$ 2,877,654.89
Fidelity Freedom Index 2015 Instl Prem	\$ 7,924,087.12	\$ 424,274.65	\$	(284,504.22)	\$	(182,893.27)	\$ -	\$ 533,689.56	\$ 8,414,653.84
Fidelity Freedom Index 2020 Instl Prem	\$ 23,417,078.77	\$ 1,388,707.12	\$	(1,741,036.00)	\$	(1,467,970.09)	\$ 2,468.78	\$ 1,881,208.04	\$ 23,480,456.62
Fidelity Freedom Index 2025 Instl Prem	\$ 33,479,995.95	\$ 2,416,015.12	\$	(924,639.72)	\$	(1,127,142.70)	\$ 145,842.23	\$ 3,185,395.69	\$ 37,175,466.57
Fidelity Freedom Index 2030 Instl Prem	\$ 41,552,294.34	\$ 3,236,953.24	\$	(797,890.08)	\$	(237,262.99)	\$ 187,635.63	\$ 4,633,996.67	\$ 48,575,726.81
Fidelity Freedom Index 2035 Instl Prem	\$ 49,395,412.89	\$ 3,894,795.14	\$	(895,850.31)	\$	286,976.78	\$ 22,214.24	\$ 6,941,733.68	\$ 59,645,282.42
Fidelity Freedom Index 2040 Instl Prem	\$ 71,922,708.46	\$ 5,136,343.14	\$	(1,316,483.51)	\$	472,033.16	\$ 1,012.01	\$ 11,669,909.68	\$ 87,885,522.95
Fidelity Freedom Index 2045 Instl Prem	\$ 57,573,069.13	\$ 5,676,884.09	\$	(1,586,283.23)	\$	(1,409,173.47)	\$ 105,197.72	\$ 9,281,541.99	\$ 69,641,236.23
Fidelity Freedom Index 2050 Instl Prem	\$ 48,039,221.78	\$ 6,179,690.53	\$	(1,337,256.92)	\$	(655,220.04)	\$ -	\$ 7,842,799.38	\$ 60,069,234.73
Fidelity Freedom Index 2055 Instl Prem	\$ 20,042,773.91	\$ 4,292,700.89	\$	6 (855,360.25)	\$	(140,634.55)	\$ 1,237.34	\$ 3,324,256.08	\$ 26,664,973.42
Fidelity Freedom Index 2060 Instl Prem	\$ 3,623,426.82	\$ 1,346,804.70	\$	(189,519.52)	\$	(8,531.60)	\$ -	\$ 624,475.31	\$ 5,396,655.72
Fidelity Diversified Intl K6	\$ 16,767,878.03	\$ 743,342.70	\$	6 (424,345.64)	\$	(229,425.67)	\$ 44,338.69	\$ 2,254,631.04	\$ 19,156,419.15
Fidelity Freedom Index 2065 Instl Prm	\$ 61,018.25	\$ 181,307.65	\$	(588.37)	\$	334,023.81	\$ =	\$ 41,832.03	\$ 617,593.37
BROKERAGELINK	\$ 8,924,985.91	\$ -	\$	6 (4,625.92)	\$	526,027.76	\$ =	\$ 676,857.63	\$ 10,123,245.38
Western Asset Core Bond I	\$ 7,178,926.51	\$ 354,205.69	\$	(215,947.06)	\$	(571,668.85)	\$ 1,225.49	\$ (132,317.21)	\$ 6,614,424.57
DFA US Small Cap I	\$ 10,319,157.88	\$ 501,734.30	\$	(258,039.24)	\$	60,501.77	\$ 30,991.98	\$ 3,174,492.58	\$ 13,828,839.27
Vanguard FTSE Social Index I	\$ 6,446,626.34	\$ 440,420.63	\$	(131,866.45)	\$	416,254.47	\$ 68.35	\$ 1,925,337.57	\$ 9,096,840.90
Victory RS Global R6	\$ 3,359,081.88	\$ 206,993.79	\$	83,274.19)	\$	323,202.39	\$ -	\$ 809,339.03	\$ 4,615,342.90
BlackRock Equity Dividend Instl	\$ 9,320,319.49	\$ 467,302.56	\$	(193,871.30)	\$	201,613.74	\$ 8,048.99	\$ 1,938,083.69	\$ 11,741,497.17
Vanguard Treasury Money Market Investor	\$ 18,251,339.98	\$ 925,915.14	\$	3,429,908.31)	\$	1,070,702.66	\$ 303,224.90	\$ (5,369.25)	\$ 17,115,905.12
Total	\$ 663,313,711.13	\$ 51,214,075.46	Ŀ	\$ (22,134,262.79)	\$	-	\$ 1,063,889.31	\$ 98,761,947.99	\$ 801,945,105.26

^{*}Includes transfer of assets to Fidelity from another provider
**Includes investment-level dividends, gains/losses, fees, adjustments; realized gains, losses, dividends, forfeitures, etc.

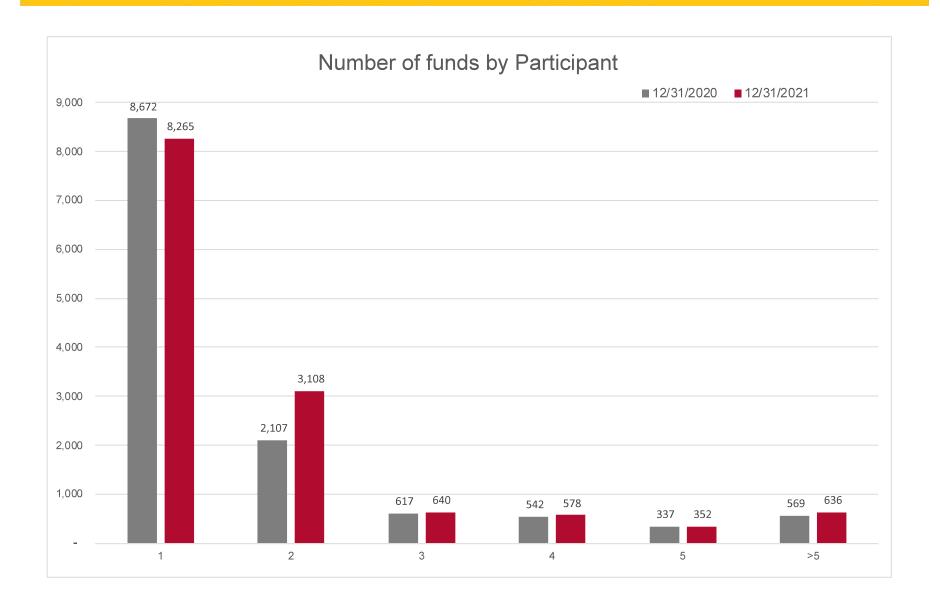
Participant Count by Investment Option - Fidelity

Fidelity Lineup	No. of Participants 2020	No. of One-Funders 2020	No. of Participants 2021	No. of One-Funders 2021
Fidelity Balanced K	646	57	653	54
Fidelity Blue Chip Growth K	1363	108	1506	124
Fidelity Contrafund K	988	36	992	35
Fidelity Mid-Cap Stock K	859	5	923	5
Fidelity US Bond Index	703	18	668	11
Fidelity 500 Index	1311	171	1480	209
Fidelity Global ex US Index	318	2	378	1
Fidelity Small Cap Index	451	2	579	4
Fidelity Inflation-Prot Bd Index	251	1	276	2
Fidelity Freedom Index Inc InstI Prem	2088	748	2679	313
Fidelity Freedom Index 2005 Instl Prem	38	5	38	5
Fidelity Freedom Index 2010 Instl Prem	90	28	89	27
Fidelity Freedom Index 2015 Instl Prem	179	87	180	85
Fidelity Freedom Index 2020 Instl Prem	400	228	399	212
Fidelity Freedom Index 2025 Instl Prem	624	369	644	367
Fidelity Freedom Index 2030 InstI Prem	790	481	843	479
Fidelity Freedom Index 2035 Instl Prem	1006	645	1084	659
Fidelity Freedom Index 2040 Instl Prem	1380	927	1448	922
Fidelity Freedom Index 2045 InstI Prem	1723	1279	1804	1257
Fidelity Freedom Index 2050 Instl Prem	2247	1719	2404	1688
Fidelity Freedom Index 2055 Instl Prem	1575	1243	1879	1252
Fidelity Freedom Index 2060 Instl Prem	518	384	784	426
Fidelity Diversified Intl K6	859	11	881	11
Fidelity Freedom Index 2065 Instl Prm	17	7	107	20
Western Asset Core Bond I	303	8	292	5
DFA US Small Cap I	572	2	604	1
Vanguard FTSE Social Index I	349	18	405	22
Victory RS Global R6	266	1	292	0
BlackRock Equity Dividend Instl	485	10	525	9
Vanguard Treasury Money Market Investor	523	72	493	60
Brokerage Link	96	1	111	1

Participant Count by Investment Option - Fidelity



Participant Investment Behavior - Fidelity



Average Participant Account Balance - Fidelity

ORP - Fidelity	as of 12/31/2020	as of 12/31/2021
Total Participant	12,843	13,577
Total Assets	\$663,313,711	\$801,922,784
Average Balance	\$51,648	\$59,065

Cost Analysis - Fidelity

Fidelity Lineup									
Fund Name	Net expense Ratio (%)	Expense Ratio Percentile Rank	No. of funds in peer group	Revenue Sharing (%)	Total Cost (Net exp - Rev share) (%)	Average expense ratio (%)			
Vanguard Treasury Money Market Investor	0.09%	1 📳	1216	0.00%	0.09%	0.11%			
Fidelity US Bond Index	0.03%	4	420	0.00%	0.03%	0.47%			
Western Asset Core Bond I	0.46%	35	420	0.10%	0.36%	0.47%			
Fidelity Inflation-Prot Bd Index	0.05%	9	104	0.00%	0.05%	0.35%			
Fidelity Balanced K	0.43%	6	495	0.20%	0.23%	0.62%			
BlackRock Equity Dividend InstI	0.71%	37	839	0.25%	0.46%	0.70%			
Fidelity 500 Index	0.01%	1	1280	0.00%	0.01%	0.82%			
Vanguard FTSE Social Index I	0.12%	7	1280	0.00%	0.12%	0.70%			
Fidelity Contrafund K	0.78%	33	979	0.20%	0.58%	0.63%			
Fidelity Blue Chip Growth K	0.71%	26	979	0.20%	0.51%	0.63%			
Fidelity Mid-Cap Stock K	0.73%	39	346	0.20%	0.53%	0.78%			
DFA US Small Cap I	0.33%	14	473	0.00%	0.33%	0.95%			
Fidelity Small Cap Index	0.03%	2	473	0.00%	0.03%	0.95%			
Fidelity Diversified Intl K6	0.60%	13	218	0.00%	0.60%	0.77%			
Fidelity Global ex US Index	0.06%	4	531	0.00%	0.06%	0.85%			
Victory RS Global R6	0.57%	26	149	0.00%	0.57%	0.75%			
Fidelity Freedom Index Inc InstI Prem	0.08%	2	81	0.00%	0.08%	0.44%			
Fidelity Freedom Index 2005 Instl Prem	0.08%	3	84	0.00%	0.08%	0.34%			
Fidelity Freedom Index 2010 Instl Prem	0.08%	3	84	0.00%	0.08%	0.34%			
Fidelity Freedom Index 2015 Instl Prem	0.08%	2	82	0.00%	0.08%	0.38%			
Fidelity Freedom Index 2020 Instl Prem	0.08%	2	100	0.00%	0.08%	0.42%			
Fidelity Freedom Index 2025 Instl Prem	0.08%	2	90	0.00%	0.08%	0.44%			
Fidelity Freedom Index 2030 Instl Prem	0.08%	2	95	0.00%	0.08%	0.45%			
Fidelity Freedom Index 2035 Instl Prem	0.08%	2	86	0.00%	0.08%	0.45%			
Fidelity Freedom Index 2040 Instl Prem	0.08%	2	96	0.00%	0.08%	0.44%			
Fidelity Freedom Index 2045 InstI Prem	0.08%	2	81	0.00%	0.08%	0.45%			

Cost Analysis - Fidelity

	Fidelity Lineup										
Fund Name	Net expense Ratio (%)	Expense Ratio Percentile Rank	No. of funds in peer group	Revenue	Total Cost (Net exp - Rev share) (%)	Average expense ratio (%)					
Fidelity Freedom Index 2050 Instl Prem	0.08%	2	83	0.00%	0.08%	0.45%					
Fidelity Freedom Index 2055 Instl Prem	0.08%	2	80	0.00%	0.08%	0.45%					
Fidelity Freedom Index 2060 Instl Prem	0.08%	2	67	0.00%	0.08%	0.46%					
Fidelity Freedom Index 2065 Instl Prm	0.08%	3	39	0.00%	0.08%	0.46%					

Data source for Number of funds in peer group is as per Morningstar Category

Fidelity Investment Lineup - Scorecard™

Scorecard[™] - Fidelity

Total Plan Assets: \$801,945,105.26 as of 12/31/2021

Target Date Series

Asset Allocation	Assets	Asset Class	Risk	Allocatio (Series	n Score Funds)	Selection Score (Underlying Funds)		Blended Score			
, 1555 / 11555 A	Assets		Index	# of Funds	Avg Score	# of Funds	Avg Score	Q4 2021	Q3 2021	Q2 2021	Q1 2021
Fidelity Freedom Index Target Date Series Instl Prem	\$444,910,565.56	AGG	81	14	8.2	6	8.7	8	9	9	9

Allocation (Series Funds)

	Asset Allocation Assets	Asset	T. 1 40		Style			Risk/Retum		Peer (Group	Qual	Score Co	mponents	Score
Asset Allocation	Assets	Class	Ticker/ I D	Risk Level	Style Diversity	R ²	Risk/ Return	Up/ Down	Info Ratio	Retum Rank	SR Rank	2pt Max	Allocation	Selection	Q4 2021
Fidelity Freedom Index Inc				1	1	1	1	1	1	0	1	2			9
InstI Prem	\$13,575,282.24	CON	FFGZX	3.4	19.8/ 80.2	98.3	3.4/ 5.5	102.3/ 96.5	0.59	53.0	1.0		9	8.7	CON
Fidelity Freedom Index				1	1	1	1	1	1	1	1	2			9
2005 Instl Prem	\$890,825.75	CON	FFGFX	4.3	29.1/ 70.9	97.4	4.3/ 6.4	95.9/ 87.8	0.06	23.0	6.0		10	8.7	CON
				1	1	1	1	1	0	1	1	2			9
Fidelity Freedom Index 2010 Instl Prem	\$2,877,654.89	CON	FFWTX	5.5	38.4/ 61.7	98.7	5.5/ 7.5	95.5/ 90.6	-0.08	4.0	18.0		9	8.7	CON
				4	1	1	1	1	0	1	1 1	2			9
Fidelity Freedom Index 2015 Instl Prem	\$8,414,653.84	MC	FIWFX	6.8	46.2/ 53.8	99.3	6.8/ 8.7	96.9/ 93.7	-0.07	8.0	9.0	2	9	8.7	MC
				1	1	1	1	1	0	1	I 1	2			9
Fidelity Freedom Index 2020 Instl Prem	\$23,480,456.62	MOD	FIWTX	8.0	53.4/ 46.6	99.6	8.0/ 9.6	97.9/ 96.5	-0.13	27.0	9.0	-	9	8.7	MOD

Scorecard™ - Fidelity Continued...

continued

Allocation (Series Funds)

	Asset Allocation Assets	Asset			Style			Risk/Returi	ı	Peer	Group	Qual	Score Co	mponents	Score
Asset Allocation	Assets	Class	ID	Risk Level	Style Diversity	R ²	Risk/ Return	Up/ Down	I nfo Ratio	Return Rank	SR Rank	2pt Max	Allocation	Selection	Q4 2021
Fidelity Freedom Index	407.475.400.57		EEED.V	1	1	1	1	1	0	1	1	2		. 7	9
2025 Instl Prem	\$37,175,466.57	MOD	FFEDX	8.9	60.6/ 39.4	99.7	8.9/ 10.4	96.8/ 95.3	-0.26	16.0	13.0		9	8.7	MOD
Fidelity Freedom Index				1	1	1	1	1	0	1	1	2	_		9
2030 Instl Prem	\$48,575,726.81	MOD	FFEGX	10.4	70.3/ 29.7	99.5	10.4/ 11.6	96.9/ 96.4	-0.29	10.0	18.0		9	8.7	MOD
Fidelity Freedom Index				1	1	1	1	0	0	1	1	2			8
2035 Instl Prem	\$59,645,282.42	MA	FFEZX	12.5	82.4/ 17.6	99.7	12.5/ 13.1	98.7/ 100.0	-0.42	15.0	23.0		8	8.7	MA
				1	1	1	0	0	0	1	1	2			8
Fidelity Freedom Index 2040 Instl Prem	\$87,885,522.95	AGG	FFIZX	13.5	86.9/ 13.1	99.8	13.5/ 13.8	100.7/ 102.4	-0.27	14.0	13.0		7	8.7	AGG
Fidelity Freedom Index				1	1	1	0	0	0	1	1	2			8
2045 Instl Prem	\$69,641,236.23	AGG	FFOLX	13.5	87.1/ 12.9	99.8	13.5/ 13.8	100.6/ 102.0	-0.26	14.0	13.0		7	8.7	AGG
Fidelity Freedom Index		1		1	1	1	0	0	0	1	1	2			8
2050 Instl Prem	\$60,069,234.73	AGG	FFOPX	13.5	87.6/ 12.4	99.9	13.5/ 13.8	100.3/ 101.7	-0.29	14.0	13.0		7	8.7	AGG
Fidelity Freedom Index				1	1	1	0	0	0	1	1	2	_		8
2055 Instl Prem	\$26,664,973.42	AGG	FFLDX	13.5	87.8/ 12.2	99.9	13.5/ 13.8	100.1/ 101.3	-0.29	14.0	13.0		7	8.7	AGG
Fidelity Freedom Index				1	1	1	0	0	0	1	1	2			8
2060 Instl Prem	\$5,396,655.72	AGG	FFLEX	13.5	88.3/ 11.7	99.8	13.5/ 13.8	99.6/ 100.7	-0.33	14.0	13.0		7	8.7	AGG
Fidelity Freedom Index 2065 Instl Prm*	\$617,593.37	AGG	FFIKX										-	8.7	-

^{*}Asset allocation funds with less than 5-year history are not scored by the Scorecard System.

Scorecard[™] - Fidelity Continued...

Core Lineup

			Ticker/		Style			Risk/Returr	ı	Peer	Group	Qual		Sc	core	
Asset Allocation	Assets	Asset Class	ID	Risk Level	Style Diversity	R2	Risk/ Return	Up/ Down	I nfo Ratio	Return Rank	SR Rank	2pt Max	Q4 2021	Q3 2021	Q2 2021	Q1 2021
				1	0	1	1	1	1	1	1	2	9	9	9	9
Fidelity Balanced K	\$27,147,756.12	MA	FBAKX	11.6	72.0/ 28.0	99.0	11.6/ 15.1	106.2/ 98.2	1.34	1.0	1.0		MA	MA	MA	MA
			Tielcon		Style			Risk/Returr	ı	Peer	Group	Qual		Sc	core	
Active	Assets	Asset Class	Ticker/ ID	Style	Style Drift	R2	Risk/ Return	Up/ Down	I nfo Ratio	Return Rank	Info Ratio Rank	2pt Max	Q4 2021	Q3 2021	Q2 2021	Q1 2021
BlackRock Equity				1	1	1	1	1	1	1	1	2	10	10	10	10
Dividend InstI	\$11,741,497.17	LCV	MADVX	-87.3/ 89.0	8.0	96.6	15.9/ 11.6	96.6/ 93.2	0.13	20.0	19.0		LCV	LCV	LCV	LCV
Fidelity Blue Chip Growth				1	1	1	1	1	1	1	1	2	10	10	10	10
К	\$68,142,286.25	LCG	FBGKX	100.0/ 60.6	13.4	93.1	18.5/ 29.7	109.0/ 94.4	0.87	4.0	2.0		LCG	LCG	LCG	LCG
		**		1	1	1	1	0	0	0	0	2	6	6	6	7
Fidelity Contrafund K	\$48,981,636.00	LCG	FCNKX	87.8/ 95.1	8.1	96.5	16.2/ 22.7	91.6/ 96.6	-0.84	56.0	75.0		LCG	LCG	LCG	LCG
				0	1	1	1	1	0	1	1	2	8	8	8	9
Fidelity Mid-Cap Stock K	\$25,487,900.59	MCB	FKMCX	-69.7/ -0.7	18,3	95.1	17.5/ 14.9	94.1/ 91.7	-0.05	23.0	20.0		МСВ	мсв	мсв	МСВ
				0	1	1	0	0	0	0	0	2	4	4	4	4
DFA US Small Cap I	\$13,828,839.27	SCB	DFSTX	-59.7/ -75.1	20.8	95.9	20.7/ 11.4	100.6/ 103.4	-0.16	60.0	76.0		SCB	SCB	SCB	SCB
	1	alea le		1	1	1	0	0	0	1	1	2	7	7	7	7
Fidelity Diversified Intl K6 ^a	\$19,156,419.15	ILCG**	FKIDX	69.7/ 21.5	14.9	92.5	14.0/ 13.5	103.3/ 111.8	-0.22	33.0	34.0		ILCG	ILCG	ILCG	ILCG
				1	1	1	1	1	1	1	1	2	10	10	10	10
Victory RS Global R6	\$4,615,342.90	GE	RGGRX	5.1/ 78.5	11,0	98.0	14.0/ 17.4	104.9/ 90.0	1,35	24.0	10.0		GE	GE	GE	GE
Western Asset Core Bond				1	1	1	1	1	1	1	1	2	10	10	10	10
I	\$6,614,424.57	CFI	WATFX	-12.1/ 35.1	15.1	82.1	3.6/ 4.3	118.9/ 113.9	0.5	14.0	11.0		CFI	CFI	CFI	CFI
Vanguard Treasury													-	-	-	-
Money Market Investor *	\$17,115,905.12	MM	VUSXX										•	-	-	-

^{*}Cash Equivalents (e.g., money market fund) are not scored by the Scorecard System.

^{**}Report system default for factsheets use Morningstar categories, which may differ from category and benchmark identified in prospectus.

a. Fidelity Diversified International K6 does not have a five-year performance track record; therefore, our system does not provide scoring. Fidelity Diversified International K's scores are inserted above as a proxy so consideration for tracking errors exists between the two funds which are attributed to differences in expense ratios and cash flows.

Scorecard™ - Fidelity Continued...

continued

					Style			Risk/Returi		Peer	Group	Qual		Sc	ore	
Active	Assets	Asset Class	Ticker/ ID	Style	Style Drift	R2	Risk/ Return	Up/ Down	Info Ratio	Return Rank	Info Ratio Rank	2pt Max	Q4 2021	Q3 2021	Q2 2021	Q1 2021
Brokerage Link *	\$10,123,245.38	SPC											-	-	-	-
			Ticker/		St	yle			Peer	Group		Qual		Sc	ore	
Passive	Assets	Asset Class	ID	Style	Style Drift	R2	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Rank	2pt Max	Q4 2021	Q3 2021	Q2 2021	Q1 2021
Fidelity 500 Index	\$64,231,850.52	LCB-P	FXAIX	1 5.1/ 96.7	2.2	1 99.7	1.1	1 45.0	2.0	16.0	16.0	2	10 LCB- P	10 LCB- P	10 LCB- P	10 LCB- P
Vanguard FTSE Social Index I	\$9,096,840.90	LCB-P	VFTNX	1 27.0/ 97.2	3.0	1 99.3	1.5	0 83.0	1 20.0	2.0	1 4.0	2	9 LCB- P	9 LCB- P	9 LCB- P	8 LCB- P
Fidelity Small Cap Index	\$7,722,539.62	SCB-P	FSSNX	1 2.2/ -99.2	1.3	100.0	0.1	17.0	5.0	22.0	20.0	2	10 SCB- P	10 SCB- P	10 SCB- P	10 SCB- P
Fidelity Global ex US Index	\$4,846,329.12	IE-P	FSGGX	1 -1.2/ 36.9	1 5.9	1 99.3	1.4	1 16.0	1 15.0	1 46.0	39.0	2	10 IE-P	10 IE-P	10 IE-P	10 IE-P
Fidelity US Bond Index	\$12,626,948.92	CFI-P	FXNAX	1 0.5/ 45.5	1 8.6	99.1	0.3	1 54.0	8.0	27.0	1 14.0	2	10 CFI-P	10 CFI-P	10 CFI-P	10 CFI-P
Fidelity Inflation-Prot Bd Index	\$5,554,778.10	UGT-P	FIPDX	-80.6/ 94.2	1 4.9	1 98.2	0.5	1 49.0	29.0	1 41.0	33.0	2	10 UGT- P	10 UGT-	10 UGT-	10 UGT-

^{*}Some specialty funds are not scored by the Scorecard System.



Vanguard Treasury Money Market Investor Category: Money Market

VUSXX 12/31/2021

Fund Strategy

The investment seeks to provide current income while maintaining liquidity and a stable share price of \$1. The fund invests solely in high-quality, short-term money market instruments whose interest and principal payments are backed by the full faith and credit of the U.S. government. At least 80% of the fund's assets will be invested in U.S. Treasury securities and in repurchase agreements fully collateralized by U.S. Treasury securities; the remainder of the assets will also be invested in U.S. Treasury securities and in repurchase agreements fully collateralized by U.S. Treasury securities.

Fund Information		Portfo	olio Statistics		
		Alpha*:	-0.02	P/E:	-
Strategy Asset (\$ mm):	33,606.00	Beta*:	0.42	P/B:	-
Share Class Assets (\$ mm):	33.606.00		as of date 6/30/2021	SEC Yield (%):	-
Onare Olass Assets (\$ mm).	30,000.00			Turnover:	-
Manager:	Nafis T. Smith			as of dat	te 12/31/2021
		*Best fit in	dex: Morningstar US Cas	h T-bill TR USD	

*3-year statistic: Morningstar US Cash T-bill TR USD

Manager Tenure: Scorecard

			Style		Ri	sk / Return		Pee	r Group	Qual. (2pt	Score
Active Strategies	Ticker	Style	Style Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Money Market											
Vanguard Treasury Money Market Investor	vusxx	-	-	-	-	-	-	-	-	-	-

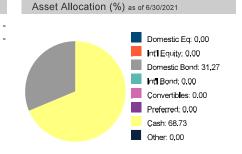
Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Vanguard Treasury	-	-	-	-	-	-	-	-
Money Market Investor	-	-	-	-	-	-	-	-

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 6/30/2021		Additional Information	
United States Treasury Bills	6.35	Prospectus Net Exp. Ratio:	0.09
United States Treasury Bills	5.31	Prospectus Gross Exp. Ratio:	0.09
United States Treasury Bills	4.94	Avg Exp Ratio Morningstar (%):	0.16
United States Treasury Bills	4.62		
United States Treasury Bills	4.52	12b-1 fees (%):	_
United States Treasury Bills	4.51	Closed - New Inv:	Yes
United States Treasury Bills	4.40	Closed - All Inv:	-
United States Treasury Bills	4.31	Min Investment:	\$50,000
United States Treasury Bills	4.18	Waiver Amt:	_
United States Treasury Bills	3.53	Waiver Exp Date:	_
% in Top 10 Holdings	46.66	Strategy Inception:	12/14/1992
# of Holdings	44	Share Class Inception:	12/14/1992

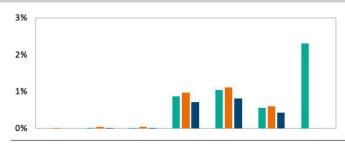
Fixed Income Detail as of 6/30/2021

Average Effective Duration*: Effective Maturity:



% Emerging Mkt: 0.00

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Vanguard Treasury Money Market Investor	0.00%	0.01%	0.01%	0.87%	1.04%	0.55%	2.31%
■ FTSE 3-Mo Treasury Bill	0.01%	0.05%	0.05%	0.96%	1.11%	0.60%	
■ Peer Group*	0.00%	0.02%	0.02%	0.71%	0.81%	0.42%	
Peer Group Rank*	-	-	-	-	-	-	-
Peer Group Size (funds)*	-	-	564	516	477	392	-

*Morningstar Peer Group: Money Market-Taxable

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Fidelity US Bond Index Category: Core Fixed Income

FXNAX 12/31/2021

Fund Strategy

The investment seeks to provide investment results that correspond to the aggregate price and interest performance of the debt securities in the Bloomberg U.S. Aggregate Bond Index. The fund normally invests at least 80% of the fund's assets in bonds included in the Bloomberg U.S. Aggregate Bond Index. Its manager uses statistical sampling techniques based on duration, maturity, interest rate sensitivity, security structure, and credit quality to attempt to replicate the returns of the Bloomberg U.S. Aggregate Bond Index using a smaller number of securities. The fund invests in Fidelity's central funds.

	,				
Fund Information		Portf	olio Statistics		
		Alpha*:	-0.11	P/E:	-
Strategy Asset (\$ mm):	59,848.00	Beta*:	1.01	P/B:	-
Share Class Assets (\$ mm):	59.848.00		as of date 11/30/2021	SEC Yield (%):	1.58
Onare Glass Assets (\$ mm).	55,545.00			Turnover:	76.00
Manager:	Brandon Bettencourt			aso	of date 12/31/2021

*Best fit index: Bloomberg US Agg Bond TR USD

Manager Tenure:

8 Years

*3-year statistic: Bloomberg US Agg Bond TR USD

Scorecard

		Style					Pee		Qual. (2pt	Score	
Passive Strategies	Ticker	Style	Sty l e Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Ratio Rank	max)	Q4 2021
Core Fixed Income											
Fidelity US Bond		1	1	1	1	1	1	1	1	2	10
Index	FXNAX	0.46/ 45.48	8.56	99.0 9	0.33	54.00	8.00	27.00	14.00	-	CFI-P

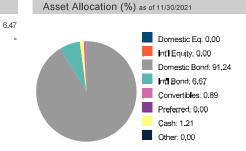
	Passive Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
ľ	Fidelity US Bond	10	10	10	10	10	10	10	10
ı	Index	CFI-P	CFI-P	CFI-P	CFI-P	CFI-P	CFI-P	CFI-P	CFI-P

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Federal Home Loan Mortgage Corporation 2%	1.30	Prospectus Net Exp. Ratio:	0.03
United States Treasury Notes 1.5%	1.25	Prospectus Gross Exp. Ratio:	0.03
United States Treasury Notes 0.125%	1.19	Avg Exp Ratio Morningstar (%):	0.59
United States Treasury Notes 2.25%	0.96		
United States Treasury Notes 0.625%	0.80	12b-1 fees (%):	-
United States Treasury Notes 0.125%	0.78	Closed - New Inv:	-
United States Treasury Notes 0.875%	0.77	Closed - All Inv:	-
Fidelity Revere Str Tr	0.77	Min Investment:	\$0
Federal National Mortgage Association 2%	0.77	Waiver Amt:	-
United States Treasury Notes 0.5%	0.73	Waiver Exp Date:	-
% in Top 10 Holdings	9.31	Strategy Inception:	5/4/2011
# of Holdings	8,295	Share Class Inception:	5/4/2011

Fixed Income Detail as of 11/30/2021

Average Effective Duration*:
Effective Maturity:



% Emerging Mkt: 0.00

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity US Bond Index	-0.12%	-1.79%	-1.79%	4.72%	3.52%	2.86%	3.21%
■ BB Aggregate Bond	0.01%	-1.54%	-1.54%	4.79%	3.57%	2.90%	
■ Peer Group*	-0.24%	-1.48%	-1.48%	4.81%	3.47%	2.95%	
Peer Group Rank*	33	63	ස	52	50	56	-
Peer Group Size (funds)*	-	-	423	386	348	253	-

*Morningstar Peer Group: Intermediate Core Bond

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Western Asset Core Bond I Category: Core Fixed Income

WATFX 12/31/2021

Fund Strategy

The investment seeks to maximize total return, consistent with prudent investment management and liquidity needs. The fund invests in a portfolio of fixed income securities of various maturities and, under normal market conditions, will invest at least 80% of its net assets in debt and fixed income securities. Although the fund may invest in debt and fixed income securities of any maturity, under normal market conditions the target dollar-weighted average effective duration for the fund is expected to range within 20% of the average duration of the domestic bond market as a whole as estimated by the fund's subadviser.

Fund Information	Portfolio Statistics					
		Alpha*:	-0.19	P/E:	-	
Strategy Asset (\$ mm):	20,936.00	Beta*:	1.18	P/B:	-	
Share Class Assets (\$ mm):	13.064.00		as of date 9/30/2021	SEC Yield (%):	1.73	
Share Class Assets (\$11111).	13,004.00			Turnover:	159.00	

*Best fit index: Bloomberg US Universal TR USD

Manager Tenure: 15 Years *3-year statistic: Bloomberg US Universal TR USD

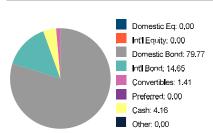
Mark S. Lindbloom

sin _{Et}

as of date 12/31/2021



Fixed Income Detail as of 9/30/2021



Asset Allocation (%) as of 9/30/2021

% Emerging Mkt: 0.00

Scorecard

Manager

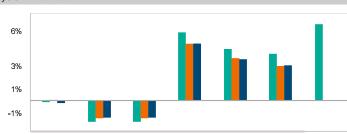
		Style			F	Risk / Return			Group	Qual. (2pt	Score
Active Strategies	Ticker	Style	Style Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Core Fixed Income											
Western Asset Core		1	1	1	1	1	1	1	1	2	10
Bond I	WATFX	-12.11/ 35.07	15.12	82. 11	3.64/ 4.34	118.85/ 113.88	0.50	14.00	11.00	-	CFI

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Western Asset Core	10	10	10	10	10	10	10	9
Bond I	CFI	CFI	CFI	CFI	CFI	CFI	CFI	CFI

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Top 10 Holdings(%) as of 9/30/2021		Additional Information	
United States Treasury Notes 1.25%	3.46	Prospectus Net Exp. Ratio:	0.46
Western Asset Prem Instl Govtt Rsrv Pref / WACXX	3.27	Prospectus Gross Exp. Ratio:	0.55
iShares iBoxx \$ Invmt Grade Corp Bd ETF / LQD	2.83	Avg Exp Ratio Morningstar (%):	0.59
United States Treasury Bonds 1.375%	2.04		
United States Treasury Bonds 1.25%	1.69	12b-1 fees (%):	-
United States Treasury Notes 1.25%	1.65	Closed - New Inv:	_
United States Treasury Notes 1.25%	1.40	Closed - All Inv:	-
United States Treasury Bonds 2.25%	1.40	Min Investment:	\$1,000,000
United States Treasury Bonds 1.875%	1.36	Waiver Amt:	0.09
United States Treasury Notes 1.125%	1.11	Waiver Exp Date:	12/31/2022
% in Top 10 Holdings	20.22	Strategy Inception:	9/4/1990
# of Holdings	2,556	Share Class Inception:	9/4/1990

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ Western Asset Core Bond I	-0.16%	-1.84%	-1.84%	5.76%	4.34%	3.94%	6.46%
■ BB Aggregate Bond	0.01%	-1.54%	-1.54%	4.79%	3.57%	2.90%	
■ Peer Group*	-0.24%	-1.48%	-1.48%	4.81%	3.47%	2.95%	
Peer Group Rank*	41	68	68	9	4	5	-
Peer Group Size (funds)*	-	-	423	386	348	253	-

*Morningstar Peer Group: Intermediate Core Bond

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Fidelity Inflation-Prot Bd Index Category: U.S. Government TIPS

FIPDX 12/31/2021

Fund Strategy

The investment seeks to provide investment results that correspond to the total return of the inflation-protected sector of the United States Treasury market. The fund normally invests at least 80% of assets in inflation-protected debt securities included in the Bloomberg Barclays U.S. Treasury Inflation-Protected Securities (TIPS) Index (Series-L). It engages 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.

Fund Information

Strategy Asset (\$ mm): 11,717.00

Share Class Assets (\$ mm): 11,717.00

Manager: Brandon Bettencourt

Manager Tenure: 8 Years

Portfolio Statistics

 Alpha*:
 0.31
 P/E:

 Beta*:
 0.95
 P/B:

 as of date 11/30/2021
 SEC Yield (%):
 1.03

 Turnover:
 31.00

as of date 12/31/2021

*Best fit index: Bloomberg US Treasury US TIPS TR USD *3-year statistic: Bloomberg US Treasury US TIPS TR USD

Scorecard

				Style			Peer Group				Score
Passive Strategies	Ticker	Style	Style Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Ratio Rank	Qual. (2pt - max)	Q4 2021
U.S. Government TIPS											
Fidelity Inflation-Prot		1	1	1	1	1	1	1	1	2	10
Bd Index	FIPDX	-80.63/ 94.20	4.88	98.2 4	0.54	49.00	29.00	41.00	33.00	-	UGT-P

Passive Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Inflation-Prot	10	10	10	10	10	10	10	10
Bd Index	UGT-P	UGT-P	UGT-P	UGT-P	UGT-P	UGT-P	UGT-P	UGT-P

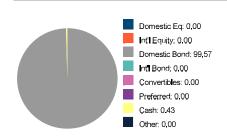
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Top 10 Holdings(%) as of 11/30/2021 Additional Information United States Treasury Notes 0.125% 3.72 Prospectus Net Exp. Ratio: 0.05 3.63 Prospectus Gross Exp. Ratio: 0.05 United States Treasury Notes 0.375% United States Treasury Notes 0.625% 3.44 Avg Exp Ratio Morningstar (%): 0.61 United States Treasury Notes 0.125% 3.40 United States Treasury Notes 0.375% 3.22 12b-1 fees (%): United States Treasury Notes 0.125% 3 20 Closed - New Inv United States Treasury Notes 0.625% Closed - All Inv: United States Treasury Notes 0.125% 3.14 Min Investment: United States Treasury Notes 0.25% 2.98 Waiver Amt United States Treasury Notes 0.5% Waiver Exp Date: % in Top 10 Holdings 32.86 Strategy Inception: 5/16/2012 5/16/2012 # of Holdinas Share Class Inception:

Fixed Income Detail as of 11/30/2021

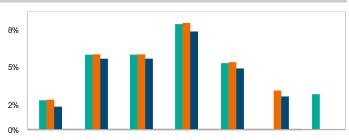
Average Effective Duration*:
Effective Maturity:

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 0.00

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Inflation-Prot Bd Index	2.31%	5.93%	5.93%	8.36%	5.26%		2.80%
■ BB TIPS	2.36%	5.96%	5.96%	8.44%	5.34%	3.09%	
Peer Group*	1.80%	5.61%	5.61%	7.77%	4.84%	2.61%	
Peer Group Rank*	18	20	20	27	25	-	-
Peer Group Size (funds)*	-	-	209	202	179	124	_

5.52

*Morningstar Peer Group: Inflation-Protected Bond

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Fidelity Balanced K Category: Moderate Aggressive

FBAKX 12/31/2021

Fund Strategy

The investment seeks income and capital growth consistent with reasonable risk. The fund invests approximately 60% of assets in stocks and other equity securities and the remainder in bonds and other debt securities, including lower-quality debt securities (those of less than investment-grade quality, also referred to as high yield debt securities or junk bonds), when its outlook is neutral. It invests at least 25% of total assets in fixed-income senior securities.

2070 of total accets in fixed income conic	i occurrico.						
Fund Information		Portfolio Statistics					
		Alpha*:	2.32	P/E:	24.09		
Strategy Asset (\$ mm):	49,049.00	Beta*:	1.23	P/B:	3.82		
Share Class Assets (\$ mm):	9.982.00		as of date 8/31/2021	SEC Yield (%):	0.80		
Oriale Olass Assets (\$11111).	3,302.00			Turnover:	40.00		
Manager:	Steven Kaye			as o	of date 12/31/2021		
		*Best fit index: Morningstar US Mod Tgt Alloc NR USD					
Manager Tenure:	13 Years	*3-vear s	statistic: Morningstar U	S Mod Tat Alloc N	IR USD		

Scorecard

Asset Allocation			Style		Risk / Return			Peer Group		Qual. (2pt	Score
Strategies	Ticker	Risk Level	Sty l e Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	max)	Q4 2021
Moderate Aggressive											
		1	0	1	1	1	1	1	1	2	9
Fidelity Balanced K	FBAKX	11.62	72.03/ 27.97	98.9 7	11.62/ 15.12	106.23/ 98.22	1.34	1.00	1.00	-	MA

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Balanced K	9	9	9	9	9	9	8	6
Fidelity balanced K	MA	MA	MA	MA	MA	MA	MA	MA

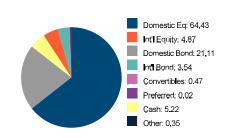
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Top 10 Holdings(%) as of 8/31/2021		Additional Information		
Fidelity Revere Str Tr	5.25	Prospectus Net Exp. Ratio:	0.43	
Microsoft Corp / MSFT	4.39	Prospectus Gross Exp. Ratio:		
Apple Inc / AAPL	3.09	Avg Exp Ratio Morningstar (%):		
Amazon.com Inc / AMZN	2.57			
Meta Platforms Inc Class A / FB	1.99	12b-1 fees (%):	-	
United States Treasury Notes 1.25%	1.82	Closed - New Inv:	-	
Alphabet Inc Class A / GOOGL	1.75	Closed - All Inv:	-	
Alphabet Inc Class C / GOOG	1.73	Min Investment:	\$0	
E-mini S&P 500 Future Sept 21 / ESU21	1.10	Waiver Amt:	-	
NVIDIA Corp / NVDA	1.06	Waiver Exp Date:	-	
% in Top 10 Holdings	24.74	Strategy Inception:	11/6/1986	
# of Holdings	1,554	Share Class Inception:	5/9/2008	

Risk Bucket as of 12/31/2021

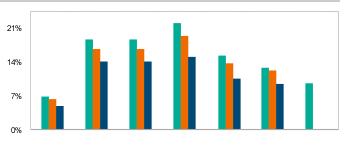
Risk Range	Risk (X)
13.00X≤15.25	-
10.50X≤13.00	11.62
7.75X≤10.50	-
5.75 X ≤7.75	-
3.00X≤5.75	-
	13.00X≤15.25 10.50X≤13.00 7.75X≤10.50 5.75X≤7.75

Asset Allocation (%) as of 8/31/2021



% Emerging Mkt: 1.37

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Balanced K	6.71%	18.41%	18.41%	21.77%	15.12%	12.62%	9.44%
■ StyleBenchmark*	6.21%	16.46%	16.46%	19.13%	13.53%	12.05%	
Peer Group**	4.79%	13.89%	13.89%	14.85%	10.39%	9.33%	
Peer Group Rank*	19	11	11	1	2	3	-
Peer Group Size (funds)*	-	-	710	665	601	433	-

^{* 0.92%} Merrill Lynch 3-Month T-Bill, 27.05% BB Aggregate Bond, 65.81% Russell 3000, 6.23% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Allocation-50% to 70% Equity

BlackRock Equity Dividend Instl Category: Large Cap Value

MADVX 12/31/2021

Fund Strategy

The investment seeks long-term total return and current income. The fund seeks to achieve its objective by investing primarily in a diversified portfolio of equity securities. Under normal circumstances, it will invest at least 80% of its assets in equity securities and at least 80% of its assets in dividend paying securities. The fund may invest in securities of companies with any market capitalization, but will generally focus on large cap securities. It may also invest in convertible securities and non-convertible preferred stock. The fund may invest up to 25% of its total assets in securities of foreign issuers.

11.942.00

Fund Information	
------------------	--

Strategy Asset (\$ mm): 21.694.00

Share Class Assets (\$ mm):

Tony DeSpirito Manager

Manager Tenure: 7 Years

Portfolio Statistics

Alpha*:	0.14	P/E:	14.69
Beta*:	0.94	P/B:	1.86
	as of date 11/30/2021	SEC Yield (%):	-
		Turnover	45.00

as of date 12/31/2021

*Best fit index: Russell 1000 Value TR USD

*3-year statistic: Russell 1000 Value TR USD

Scorecard

		Style			Risk / Return			Peer Group		Qual. (2pt	Score
Active Strategies	Ticker	Style	Sty l e Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Large Cap Value											
BlackRock Equity		1	1	1	1	1	1	1	1	2	10
Dividend InstI	MADVX	-87.27/ 89.00	7.98	96.6 3	15.86/ 11.57	96.60/ 93.21	0.13	20.00	19.00	-	LCV

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
BlackRock Equity	10	10	10	10	10	10	10	10
Dividend InstI	LCV	LCV	LCV	LCV	LCV	LCV	LCV	LCV

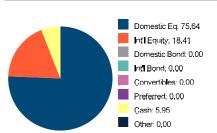
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Top 10 Holdings(%) as of 11/30/2021		Additional Information		
BlackRock Liquidity T-Fund Instl / TSTXX	4.58	Prospectus Net Exp. Ratio:	0.71	
Wells Fargo & Co / WFC	3.84	Prospectus Gross Exp. Ratio:	0.71	
Citigroup Inc / C	3.12	Avg Exp Ratio Morningstar (%):	0.93	
American International Group Inc / AIG	2.76			
Cisco Systems Inc / CSCO	2.76	12b-1 fees (%):	_	
Anthem Inc / ANTM	2.66	Closed - New Inv:	_	
Bank of America Corp / BAC	2.64	Closed - All Inv:	_	
General Motors Co / GM	2.14	Min Investment:	\$2,000,000	
Unilever PLC ADR / UL	1.90	Waiver Amt:	_	
AstraZeneca PLC / AZN	1.86	Waiver Exp Date:	-	
% in Top 10 Holdings	28.26	Strategy Inception:	11/29/1988	
# of Holdings	108	Share Class Inception:	11/29/1988	

Sector Allocation as of 11/30/2021

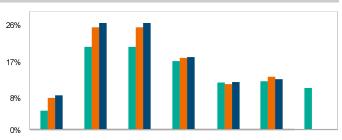
Real Estate:	0.00
Basic Materials:	1.60
Utilities:	4.71
Cons Cyclical:	5.66
Comm:	6.32
Energy:	6.79
Industrials:	7.59
Cons Defensive:	8.44
Technology:	12.16
Healthcare:	18.73
Financial Services:	27.99

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 0.00

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ BlackRock Equity Dividend InstI	4.61%	20.35%	20.35%	16.84%	11.57%	11.87%	10.20%
Russell 1000 Value Index	7.77%	25.16%	25.16%	17.64%	11.16%	12.97%	
Peer Group*	8.42%	26.22%	26.22%	17.82%	11.68%	12.39%	
Peer Group Rank*	97	92	92	63	51	70	-
Peer Group Size (funds)*	_	_	1.207	1.143	1.036	755	_

*Morningstar Peer Group: Large Value

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Fidelity 500 Index Category: Large Cap Blend

FXAIX 12/31/2021

Fund Strategy

The investment seeks to provide investment results that correspond to the total return performance of common stocks publicly traded in the United States. The fund normally invests at least 80% of assets in common stocks included in the S&P 500® Index, which broadly represents the performance of common stocks publicly traded in the United States. It lends securities to earn income.

Fund Information			Portfolio Statistics				
		Alpha*:	-	P/E:	24.03		
Strategy Asset (\$ mm):	399,363.00	Beta*:	1.00	P/B:	4.40		
Share Class Assets (\$ mm):	399.363.00		as of date 11/30/2021	SEC Yield (%	o): -		
Office Oldss Assets (\$11111).	000,000.00			Turnover:	7.00		
Manager:	Louis Bottari			а	s of date 12/31/2021		
		*Best fit i	ndex: S&P 500 TR USD				

Manager Tenure: 13 Years *3-year statistic: S&P 500 TR USD

Scorecard

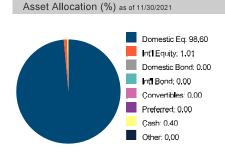
	Passive Strategies Ticker	Style			Peer Group				Qual. (2pt	Score	
Passive Strategies		Style	Style Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Ratio Rank	max)	Q4 2021
Large Cap Blend											
		1	1	1	1	1	1	1	1	2	10
Fidelity 500 Index	FXAIX	5.07/ 96.72	2.22	99.6 8	1.14	45.00	2.00	16.00	16.00	-	LCB-P

	Passive Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
	Fidelity 500 Index	10	10	10	10	10	10	10	10
		LCB-P	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P

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Top 10 Holdings(%) as of 11/30/2021		Additional Information		
Apple Inc / AAPL	6.67	Prospectus Net Exp. Ratio:	0.01	
Microsoft Corp / MSFT	6.38	Prospectus Gross Exp. Ratio:	0.01	
Amazon.com Inc / AMZN	3.92	Avg Exp Ratio Morningstar (%):	0.81	
Tesla Inc / TSLA	2.39			
Alphabet Inc Class A / GOOGL	2.19	12b-1 fees (%):	-	
NVIDIA Corp / NVDA	2.09	Closed - New Inv:		
Alphabet Inc Class C / GOOG	2.06	Closed - All Inv:	-	
Meta Platforms Inc Class A / FB	1.99	Min Investment:	\$0	
Berkshire Hathaway Inc Class B / BRK.B	1.32	Waiver Amt:	0.01	
JPMorgan Chase & Co / JPM	1.22	Waiver Exp Date:	4/30/2017	
% in Top 10 Holdings	30.22	Strategy Inception:	5/4/2011	
# of Holdings	509	Share Class Inception:	<i>5/4/</i> 2011	

Sector Allocation as of 11/30/2021 Basic Materials: 2.20 Utilities: 2.37 Real Estate: 2.62 Energy: 2.71 6.04 Cons Defensive: Industrials: 8.13 10.36 Comm: Healthcare: 12.80 Cons Cyclical: 12.88 Financial Services: 12.97 Technology: 26.93



% Emerging Mkt: 0.15

Performance Analysis as of 12/31/2021



*Morningstar Peer Group: Large Blend

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Vanguard FTSE Social Index I Category: Large Cap Blend

VFTNX 12/31/2021

Fund Strategy

The investment seeks to track the performance of the FTSE4Good US Select Index that measures the investment return of large- and mid-capitalization stocks. The advisor employs an indexing investment approach designed to track the performance of the index. The index, which is market-capitalization weighted, is composed of large- and mid-cap stocks of companies that are screened for certain ESG criteria by the index sponsor. The manager attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Fund Information		Portfolio Statistics				
		Alpha*:	1.00	P/E:	24.83	
Strategy Asset (\$ mm):	16,053.00	Beta*:	1.02	P/B:	5.07	
Share Class Assets (\$ mm):	7.148.00		as of date 11/30/2021	SEC Yield (%):	0.95	
Share Class Assets (\$ IIIII).	7,146.00			Tumover:	4.00	
Manager:	William A. Coleman	as of date 12/31/2021				
		*Best fit index: Morningstar US Large-Mid TR USD				
Manager Tenure:	*3-year statistic: Morningstar US Large-Mid TR USD					

Scorecard

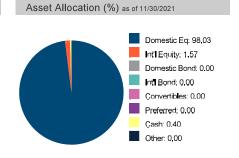
	Ticker		Sty	le		Peer Group				Qual. (2pt	Score
Passive Strategies		Style	Sty l e Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Ratio Rank	max)	Q4 2021
Large Cap Blend											
Vanguard FTSE		1	1	1	1	0	1	1	1	2	9
Social Index I	VFTNX	26.96/ 97.17	2.98	99.2 9	1.54	83.00	20.00	2.00	4.00	-	LCB-P

	Passive Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
ſ	Vanguard FTSE	9	9	9	8	8	8	8	9
	Social Index I	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P

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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Apple Inc / AAPL	7.40	Prospectus Net Exp. Ratio:	0.12
Microsoft Corp / MSFT	7.11	Prospectus Gross Exp. Ratio:	0.12
Amazon.com Inc / AMZN	4.34	Avg Exp Ratio Morningstar (%):	0.81
Tesla Inc / TSLA	2.60		
Alphabet Inc Class A / GOOGL	2.43	12b-1 fees (%):	-
Alphabet Inc Class C / GOOG	2.28	Closed - New Inv:	-
NVIDIA Corp / NVDA	2.23	Closed - All Inv:	-
Meta Platforms Inc Class A / FB	2.21	Min Investment:	\$5,000,000
JPMorgan Chase & Co / JPM	1.34	Waiver Amt:	-
The Home Depot Inc / HD	1.22	Waiver Exp Date:	-
% in Top 10 Holdings	33.17	Strategy Inception:	1/14/2003
# of Holdings	494	Share Class Inception:	1/14/2003

Sector Allocation as of 11/30/2021	
Energy:	0.00
Utilities:	0.65
Basic Materials:	2.09
Real Estate:	3.05
Industrials:	5.07
Cons Defensive:	5.35
Comm:	11.83
Financial Services:	12.76
Healthcare:	13.62
Cons Cyclical:	13.86
Technology:	31.73



% Emerging Mkt: 0.49

Performance Analysis as of 12/31/2021



*Morningstar Peer Group: Large Blend

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Fidelity Contrafund K Category: Large Cap Growth¹

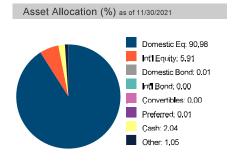
FCNKX 12/31/2021

Fund Strategy

The investment seeks capital appreciation. The fund normally invests primarily in common stocks. It invests in securities of companies whose value the advisor believes is not fully recognized by the public. The fund invests in domestic and foreign issuers. It invests in either "growth" stocks or "value" stocks or both. The fund uses fundamental analysis of factors such as each issuer's financial condition and industry position, as well as market and economic conditions to select investments.

Fund Information		Portfo	lio Statistics		
		Alpha*:	-1.52	P/E:	23.70
Strategy Asset (\$ mm):	145,369.00	Beta*:	0.95	P/B:	5.35
Share Class Assets (\$ mm):	16.637.00	;	as of date 11/30/2021	SEC Yield (%):	-
Stidle Class Assets (\$11111).	10,037.00			Turnover:	32.00
Manager:	William Danoff			as	of date 12/31/2021
		*Best fit ind	lex: Morningstar US I	Large Mid Brd G	irt TR USD
Manager Tenure:	31 Years	*3-year sta	tistic: Morningstar US	S Large Mid Brd	Grt TR USD
•					

Sector Allocation as of 11/30/2021 Utilities 0.01 Real Estate: 0.18 0.42 Energy: Basic Materials: 2.10 Cons Defensive: 2.55 Industrials: 2.67 Healthcare: 10.90 Cons Cyclical: 14.77 Financial Services: 1477 Comm: 19.79 Technology: 31.84



% Emerging Mkt: 0.42

Scorecard

		:	Style	tyle Risk / Return		Peer Group		Qual. (2pt	Score		
Active Strategies	Ticker	Style	Sty l e Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Large Cap Growth											
		1	1	1	1	0	0	0	0	2	6
Fidelity Contrafund K	FCNKX	87.83/ 95.08	8.07	96.5 3	16.24/ 22.73	91.57/ 96.60	-0.84	56.00	75.00	-	LCG

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Contrafund K	6	6	6	7	7	8	8	8
Fidelity Contratund K	LCG	LCG	LCG	LCG	LCG	LCG	LCG	LCG

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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Meta Platforms Inc Class A / FB	9.26	Prospectus Net Exp. Ratio:	0.78
Amazon.com Inc / AMZN	8.16	Prospectus Gross Exp. Ratio:	0.78
Microsoft Corp / MSFT	6.36	Avg Exp Ratio Morningstar (%):	0.98
Berkshire Hathaway Inc Class A / BRK.A	5.40		
NVIDIA Corp / NVDA	3.53	12b-1 fees (%):	-
Apple Inc / AAPL	3.48	Closed - New Inv:	-
Alphabet Inc Class A / GOOGL	3.26	Closed - All Inv:	-
UnitedHealth Group Inc / UNH	3.15	Min Investment:	\$0
Alphabet Inc Class C / GOOG	3.03	Waiver Amt:	-
Salesforce.com Inc / CRM	2.71	Waiver Exp Date:	-
% in Top 10 Holdings	48.34	Strategy Inception:	5/17/1967
# of Holdings	391	Share Class Inception:	5/9/2008

Performance Analysis as of 12/31/2021



*Morningstar Peer Group: Large Growth

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Contact (215) 557-7622 for most recent month end performance.

1. Report system default for factsheets use Morningstar categories, which may differ from category and benchmark identified in prospectus.

Fidelity Blue Chip Growth K Category: Large Cap Growth

FBGKX 12/31/2021

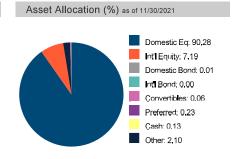
Fund Strategy

The investment seeks growth of capital over the long term. The fund invests primarily in common stocks. It normally invests at least 80% of assets in blue chip companies (companies that, in Fidelity Management & Research Company LLC (FMR)'s view, are well-known, wellestablished and well-capitalized), which generally have large or medium market capitalizations. It invests in securities of domestic and foreign issuers. The fund uses fundamental analysis of factors such as each issuer's financial condition and industry position, as well as market and economic conditions, to select investments.

Fund Information		Portfolio Statistics				
		Alpha*:	1.74	P/E:	31.65	
Strategy Asset (\$ mm):	61,168.00	Beta*:	1.11	P/B:	8.27	
Share Class Assets (\$ mm):	8.448.00		as of date 11/30/2021	SEC Yield (%):	-	
Silare Class Assets (# IIIII).	0,440.00			Turnover:	41.00	
Manager:	Sonu Kalra			as o	of date 12/31/2021	
		*Best fit	index: Morningstar US I	Large Mid Brd Grt	TR USD	
Manager Tenure:	13 Years	*3-vear	statistic: Morningstar US	S Large Mid Brd C	art TR USD	

*3-year statistic: Morningstar US Large Mid Brd Grt TR USD

Sector Allocation as of 11/30/2021 Utilities: 0.03 Real Estate: 0.28 Cons Defensive: 0.75 Basic Materials: 1.28 1.58 Energy: Industrials: 1.71 Financial Services: 2.20 Healthcare: 6.91 Comm 15.40 Cons Cyclical: 28.76 Technology: 41.09



% Emerging Mkt: 3.38

Scorecard

		5	Style		F	Risk / Return			Peer Group		Score
Active Strategies	Ticker	Style	Sty l e Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	Qual. (2pt max)	Q4 2021
Large Cap Growth											
Fidelity Blue Chip		1	1	1	1	1	1	1	1	2	10
Growth K	FBGKX	100.00/ 60.59	13.40	93.0 6	18.51/ 29.70	109.01/ 94.41	0.87	4.00	2.00	-	LCG

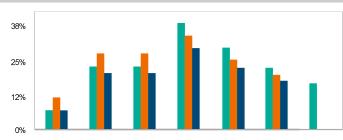
Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Blue Chip	10	10	10	10	10	10	10	7
Growth K	LCG	LCG	LCG	LCG	LCG	LCG	LCG	LCG

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Apple Inc / AAPL	9.12	Prospectus Net Exp. Ratio:	0.71
Amazon.com Inc / AMZN	6.75	Prospectus Gross Exp. Ratio:	0.71
Microsoft Corp / MSFT	6.75	Avg Exp Ratio Morningstar (%):	0.98
NVIDIA Corp / NVDA	6.51		
Alphabet Inc Class A / GOOGL	6.18	12b-1 fees (%):	-
Meta Platforms Inc Class A / FB	3.87	Closed - New Inv:	-
Tesla Inc / TSLA	3.69	Closed - All Inv:	-
Marvell Technology Inc / MRVL	2.77	Min Investment:	\$0
Salesforce.com Inc / CRM	1.79	Waiver Amt:	-
Lowe's Companies Inc / LOW	1.52	Waiver Exp Date:	-
% in Top 10 Holdings	48.96	Strategy Inception:	12/31/1987
# of Holdings	501	Share Class Inception:	5/9/2008

Performance Analysis as of 12/31/2021

P



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Blue Chip Growth K	6.99%	22.81%	22.81%	38.62%	29.70%	22.37%	16.75%
Russell 1000 Growth Index	11.64%	27.60%	27.60%	34.08%	25.32%	19.79%	
Peer Group*	6.91%	20.45%	20.45%	29.54%	22.39%	17.65%	
Peer Group Rank*	60	48	48	4	5	4	-
Peer Group Size (funds)*	-	_	1,237	1,116	1,012	768	_

*Morningstar Peer Group: Large Growth

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Fidelity Mid-Cap Stock K Category: Mid Cap Blend

FKMCX 12/31/2021

Fund Strategy

The investment seeks long-term growth of capital. The fund normally invests at least 80% of assets in common stocks of companies with medium market capitalizations (which, for purposes of this fund, are those companies with market capitalizations similar to companies in the Russell Midcap® Index or the S&P MidCap 400® Index). It potentially invests in companies with smaller or larger market capitalizations. The fund invests in domestic and foreign issuers, It invests in either "growth" stocks or "value" stocks or both.

Fund Information		Port	folio Statistics		
		Alpha*:	2.88	P/E:	14.80
Strategy Asset (\$ mm):	7,891.00	Beta*:	0.92	P/B:	2.16
Share Class Assets (\$ mm):	1.452.00		as of date 11/30/2021	SEC Yield (%): -
Official Oldss Assets (4 mm).	1,402.00			Tumover:	30.00
Manager:	John D. Roth			a	s of date 12/31/2021
		*Best fit i	ndex: Russell Mid Cap \	/alue TR USD	

11 Years *3-year statistic: Russell Mid Cap Value TR USD

Manager Tenure: Scorecard

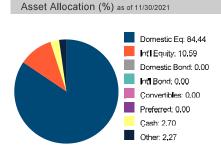
		:	Style		R	isk / Return		Pee	r Group	Qual. (2pt	Score
Active Strategies	Ticker	Style	Sty l e Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Mid Cap Blend											
Fidelity Mid-Cap		0	1	1	1	1	0	1	1	2	8
Stock K	FKMCX	-69.70/ -0.71	18.25	95.0 7	17.47/ 14.91	94.07/ 91.68	-0.05	23.00	20.00	-	MCB

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Mid-Cap	8	8	8	9	7	7	8	8
Stock K	MCB	MCB	MCB	MCB	MCB	MCB	MCB	MCB

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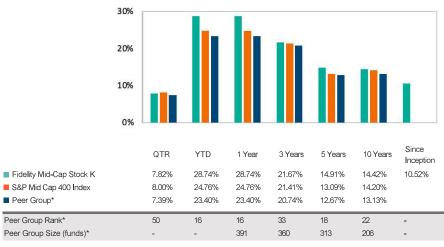
Top 10 Holdings(%) as of 11/30/2021		Additional Information		
Fidelity Revere Str Tr 2.71		Prospectus Net Exp. Ratio:	0.73	
Molina Healthcare Inc / MOH	2.05	Prospectus Gross Exp. Ratio:	0.73	
American Financial Group Inc / AFG	1.52	Avg Exp Ratio Morningstar (%):	0.94	
First Horizon Corp / FHN	1.37			
Wintrust Financial Corp / WTFC	1.33	12b-1 fees (%):	-	
WNS (Holdings) Ltd ADR / WNS	1.32	Closed - New Inv:		
Arch Capital Group Ltd / ACGL	1.30	Closed - All Inv:	-	
Cheniere Energy Inc / LNG	1.29	Min Investment:	\$0	
Brunello Cucinelli SpA / BC	1.29	Waiver Amt:	-	
NVR Inc / NVR	1.25	Waiver Exp Date:	-	
% in Top 10 Holdings	15.44	Strategy Inception:	3/29/1994	
# of Holdings	172	Share Class Inception:	5/9/2008	

Sector Allocation as of 11/30/2021 2.90 Comm: Cons Defensive: 2.94 Utilities: 4.39 Basic Materials: 6.18 Healthcare: 7.16 7.51 Energy: Real Estate: 8.69 Technology: 9.71 Cons Cyclical: 14.54 Industrials: 15.67 Financial Services: 20.32



% Emerging Mkt: 0.00

Performance Analysis as of 12/31/2021



*Morningstar Peer Group: Mid-Cap Blend

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DFA US Small Cap I Category: Small Cap Blend

DFSTX 12/31/2021

Fund Strategy

The investment seeks long-term capital appreciation. The fund, using a market capitalization weighted approach, purchases a broad and diverse group of readily marketable securities of U.S. small cap companies. A company's market capitalization is the number of its shares outstanding times its price per share. In general, the higher the relative market capitalization of the U.S. small cap company, the greater its representation in the Portfolio.

Fund Information		Portfolio Statistics				
		A l pha*:	3.96	P/E:	14.94	
Strategy Asset (\$ mm):	16,394.00	Beta*:	0.85	P/B:	2.22	
Share Class Assets (\$ mm):	16.394.00		as of date 11/30/2021	SEC Yield (%)	: -	
Onare Olass Assets (\$11111).	10,004.00			Turnover:	3.00	
Manager:	Jed S. Fogdall			as	of date 12/31/2021	
		*Best fit index: Morningstar US Small Brd Val Ext TR USD				
Manager Tenure:	10 Years	*3-year statistic: Morningstar US Small Brd Val Ext TR USD				

Scorecard

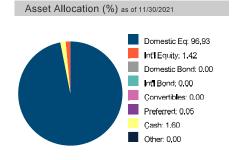
		Sty l e		Risk / Return			Peer Group		Qual. (2pt	Score	
Active Strategies	Ticker	Style	Style Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Small Cap Blend											
DFA US Small Cap I		0	1	1	0	0	0	0	0	2	4
	DFSTX	-59.68/ -75.10	20.82	95.9 2	20.70/ 11.36	100.61/ 103.37	-0.16	60.00	76.00	-	SCB

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
DFA US Small Cap I	4	4	4	4	5	5	5	5
	SCB	SCB	SCB	SCB	SCB	SCB	SCB	SCB

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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
S+p500 Emini Fut Dec21 Xcme 20211217	1.77	Prospectus Net Exp. Ratio:	0.33
Synaptics Inc / SYNA		Prospectus Gross Exp. Ratio:	0.33
Crocs Inc / CROX	0.44	Avg Exp Ratio Morningstar (%):	1.01
Saia Inc / SAIA	0.42		
Omnicell Inc / OMCL		12b-1 fees (%):	-
Tenet Healthcare Corp / THC	0.39	Closed - New Inv:	-
Regal Rexnord Corp / RRX	0.39	Closed - All Inv:	-
WESCO International Inc / WCC	0.35	Min Investment:	\$0
Lattice Semiconductor Corp / LSCC	0.35	Waiver Amt:	-
Tetra Tech Inc / TTEK	0.33	Waiver Exp Date:	-
% in Top 10 Holdings	5.30	Strategy Inception:	3/19/1992
# of Holdings	2,046	Share Class Inception:	3/19/1992

Sector Allocation as of 11/30	/2021
Real Estate:	0.50
Utilities:	2.91
Comm:	3.27
Energy:	3.50
Cons Defensive:	4.47
Basic Materials:	5.27
Healthcare:	12.09
Technology:	13.48
Cons Cyclical:	13.78
Industrials:	20.12
Financial Services:	20.60



% Emerging Mkt: 0.24

Performance Analysis as of 12/31/2021

■ DFA US Small Cap I

Russell 2000 Index

■ Peer Group*

Peer Group Rank*



*Morningstar Peer Group: Small Blend

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Fidelity Small Cap Index Category: Small Cap Blend

FSSNX 12/31/2021

Fund Strategy

The investment seeks to provide investment results that correspond to the total return of stocks of small-capitalization United States companies. The fund invests normally at least 80% of its assets in securities included in the Russell 2000® Index. It lends securities to earn income

eam income.							
Fund Information			Portfolio Statistics				
		A l pha*:	0.03	P/E:	16.36		
Strategy Asset (\$ mm):	21,426.00	Beta*:	1.00	P/B:	2.48		
Share Class Assets (\$ mm):	21.426.00		as of date 10/31/2021	SEC Yield (%)	: -		
Onare Olass Assets (\$11111).	21,420.00			Turnover:	19.00		
Manager:	Louis Bottari			as	of date 12/31/2021		
		*Best fit index: Russell 2000 TR USD					
Manager Tenure:	*3-year statistic: Russell 2000 TR USD						

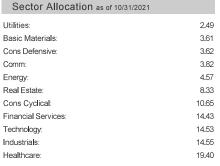
Scorecard

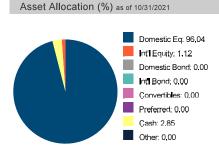
	Ticker	Style			Peer Group				Qual. (2pt	Score	
Passive Strategies		Style	Style Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Ratio Rank	max)	Q4 2021
Small Cap Blend											
Fidelity Small Cap		1	1	1	1	1	1	1	1	2	10
Index	FSSNX	2.22/ - 99.15	1.32	100. 00	0.08	17.00	5.00	22.00	20.00	-	SCB-P

Passive Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Small Cap	10	10	10	10	10	10	10	10
Index	SCB-P	SCB-P	SCB-P	SCB-P	SCB-P	SCB-P	SCB-P	SCB-P

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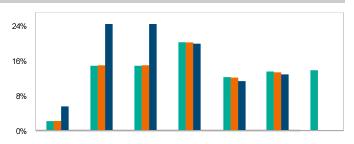
Top 10 Holdings(%) as of 10/31/2021		Additional Information	
E-mini Russell 2000 Index Future Dec 21 / RTYZ21	2.95	Prospectus Net Exp. Ratio:	0.03
Fidelity Revere Str Tr	2.75	Prospectus Gross Exp. Ratio:	0.03
AMC Entertainment Holdings Inc Class A / AMC	0.58	Avg Exp Ratio Morningstar (%):	1.01
Asana Inc Ordinary Shares - Class A / ASAN	0.32		
Crocs Inc / CROX	0.32	12b-1 fees (%):	-
Ovintiv Inc / OVV	0.31	Closed - New Inv:	-
Tetra Tech Inc / TTEK	0.30	Closed - All Inv:	-
Lattice Semiconductor Corp / LSCC	0.30	Min Investment:	\$0
Intellia Therapeutics Inc / NTLA	0.29	Waiver Amt:	0.10
Avis Budget Group Inc / CAR	0.27	Waiver Exp Date:	6/30/2017
% in Top 10 Holdings	8.41	Strategy Inception:	9/8/2011
# of Holdings	2,025	Share Class Inception:	9/8/2011





% Emerging Mkt: 0.34

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ Fidelity Small Cap Index	2.10%	14.71%	14.71%	20.05%	12.11%	13.38%	13.70%
Russell 2000 Index	2.14%	14.82%	14.82%	20.02%	12.02%	13.23%	
■ Peer Group*	5.47%	24.19%	24.19%	19.73%	11.22%	12.74%	
Peer Group Rank*	92	93	93	50	35	34	-
Peer Group Size (funds)*	-	-	630	596	528	352	-

*Morningstar Peer Group: Small Blend

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Fidelity Diversified Intl K6 Category: International Large Cap Growth

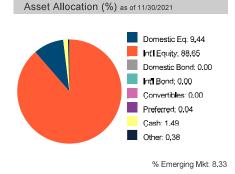
FKIDX 12/31/2021

Fund Strategy

The investment seeks capital growth. The fund normally invests primarily in non-U.S. securities. It normally invests primarily in common stocks. The advisor allocates investments across different countries and regions.

Fund Information	Fund Information			Portfolio Statistics				
		Alpha*:	2.41	P/E:	24.01			
Strategy Asset (\$ mm):	4,281.00	Beta*:	1.32	P/B:	3.34			
Share Class Assets (\$ mm):	4.281.00		as of date 11/30/2021	SEC Yield (%):	-			
Share Class Assets (\$ IIIII).	4,201.00			Turnover:	30.00			
Manager:	William Bower			as c	f date 12/31/2021			
		*Best fit index: Morningstar Gbl Allocation TR USD						
Manager Tenure:	5 Years	*3-year st	tatistic: Morningstar Gb	star Gbl Allocation TR USD				

Country Exposure(%) as of 11/30/2021 US: 9.62 Canada: 3.07 0.08 Latin America: United Kingdom: 10.25 EuroZone: 28.79 13.61 Europe ex-EuroZone: Europe Emerging: 0.00 0.00 Middle East: 0.60 Japan: 19.93 Australasia: 0.94 Asia Developed: 4.85 8.25 Asia Emerging



Scorecard

	Ticker	Style			Ri	isk / Return		Pee	r Group	Qual. (2pt	Score
Active Strategies		Style	Style Drift	R²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
International Large Cap	Growth										
Fidelity Diversified	FKIDX	-	-	-	-	-	-	-	-	-	-
Intl K6	TIGOX	-	-	-	-	-	-	-	-	-	-

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Diversified	N/A***	N/A***	N/A***	N/A***	N/A***	N/A***	N/A***	N/A***
Intl K6	N/A***	N/A***	N/A***	N/A***	N/A***	N/A***	N/A***	N/A***

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****Fidelity Diversified International K6 does not have a five-year performance track record; therefore, our system does not provide scoring.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
ASML Holding NV ADR / ASML	2.98	Prospectus Net Exp. Ratio:	0.60
Roche Holding AG / ROG	2.70	Prospectus Gross Exp. Ratio:	0.60
Hoya Corp / 7741	2.32	Avg Exp Ratio Morningstar (%):	1.04
Nestle SA / NESN	2.19		
LVMH Moet Hennessy Louis Vuitton SE / MC	1.95	12b-1 fees (%):	-
Keyence Corp / 6861	1.63	Closed - New Inv:	-
AIA Group Ltd / 01299	1.60	Closed - All Inv:	-
Reliance Industries Ltd / RELIANCE	1.60	Min Investment:	\$0
Fidelity Revere Str Tr	1.46	Waiver Amt:	-
Sony Group Corp / 6758	1.41	Waiver Exp Date:	-
% in Top 10 Holdings	19.84	Strategy Inception:	5/25/2017
# of Holdings	175	Share Class Inception:	5/25/2017

Performance Analysis as of 12/31/2021



^{*}Morningstar Peer Group: Foreign Large Growth

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Contact (215) 557-7622 for most recent month end performance.

1. Report system default for factsheets use Morningstar categories, which may differ from category and benchmark identified in prospectus.

^{**} Longer term annualized performance 5 and 10 year are from Fidelity Diversified Intl K share (FDIKX), a separate higher expense (+31bps) fund with the same manager, investment objective and holdings; however, subject to different cash flow, asset value and performance.

Fidelity Global ex US Index Category: International Equity

FSGGX 12/31/2021

Fund Strategy

The investment seeks to provide investment results that correspond to the total return of foreign developed and emerging stock markets. The fund invests at least 80% of assets in securities included in the MSCI ACVVI (All Country World Index) ex USA Index and in depositary receipts representing securities included in the index. The advisor 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 MSCI ACVVI (All Country World Index) ex USA Index.

Fund Information		Portfolio Statistics					
		Alpha*:	0.06	P/E:	14.55		
Strategy Asset (\$ mm):	9,322.00	Beta*:	0.99	P/B:	1.79		
Share Class Assets (\$ mm):	9.322.00		as of date 11/30/2021	SEC Yield (%)	: -		
Share Class Assets (\$11111).	3,322.00			Turnover:	5.00		
Manager:	Louis Bottari			as	of date 12/31/2021		
		*Best fit i	ndex: MSCI ACWI Ex U	ISA NR USD			
Manager Tenure:	10 Years	*3-year s	tatistic: MSCI ACWI Ex	USA NR USD			

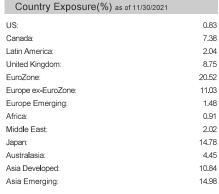
Scorecard

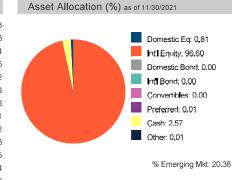
	Ticker	Style					Peer Group				Score
Passive Strategies		Style	Sty l e Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Ratio Rank	Qual. (2pt max)	Q4 2021
International Equity											
Fidelity Global ex US Index		1	1	1	1	1	1	1	1	2	10
	FSGGX	-1.22/ 36.85	5.92	99.3 2	1.41	16.00	15.00	46.00	39.00	-	IE-P

Passive Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Global ex US	10	10	10	10	10	10	10	10
Index	IE-P	IE-P	IE-P	IE-P	IE-P	IE-P	IE-P	IE-P

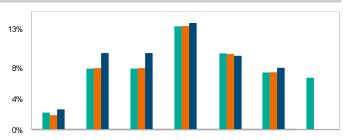
The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity Revere Str Tr	2.43	Prospectus Net Exp. Ratio:	0.06
MSCI EAFE Index Future Dec 21 / MFSZ21	2.05	Prospectus Gross Exp. Ratio:	0.06
Taiwan Semiconductor Manufacturing Co Ltd / 2330	1.91	Avg Exp Ratio Morningstar (%):	0.92
Nestle SA / NESN	1.37		
Tencent Holdings Ltd / 00700	1.25	12b-1 fees (%):	-
ASML Holding NV / ASML	1.22	Closed - New Inv:	-
Samsung Electronics Co Ltd / 005930	1.08	Closed - All Inv:	-
Roche Holding AG / ROG	1.02	Min Investment:	\$0
MSCI Emerging Markets Index Future Dec 21 /	0.95	Waiver Amt:	0.13
Alibaba Group Holding Ltd Ordinary Shares / 09988	0.90	Waiver Exp Date:	12/31/2016
% in Top 10 Holdings	14.20	Strategy Inception:	9/8/2011
# of Holdings	2,439	Share Class Inception:	9/8/2011





Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Global ex US Index	2.15%	7.76%	7.76%	13.13%	9.69%	7.27%	6.58%
MSCI ACWI ex USA NR	1.82%	7.82%	7.82%	13.18%	9.61%	7.28%	
Peer Group*	2.55%	9.72%	9.72%	13.56%	9.38%	7.85%	
Peer Group Rank*	69	75	75	63	46	74	-
Peer Group Size (funds)*	-	_	767	698	601	409	_

*Morningstar Peer Group: Foreign Large Blend

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Victory RS Global R6 Category: Global Equity

RGGRX 12/31/2021

Fund Strategy

The investment seeks to provide long-term capital appreciation. The fund normally invests at least 80% of the value of its net assets in common stocks, preferred stocks, and other securities convertible into common or preferred stock of publicly traded companies wherever they may be in the world. Under normal circumstances, the fund will invest in companies located in at least three different countries including the United States. It will normally invest 40% or more of its total assets in securities of non-U.S. companies.

Fund Information		Portfolio St	atistics		
		Alpha*:	-	P/E:	18.94
Strategy Asset (\$ mm):	350.00	Beta*:	-	P/B:	3.52
Share Class Assets (\$ mm):	100.00	as of d	late 9/30/2021	SEC Yield (%):	0.90
Onare Class Assets (\$11111).	100.00			Turnover:	-
Manager:	U-Wen Kok			as of da	ate 12/31/2021
		*Best fit index:			
Manager Tenure:	9 Years	*3-year statistic:			

Scorecard

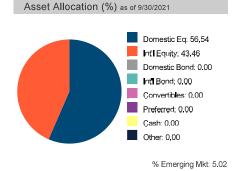
	Ticker	Style			R	isk / Return		Pee	r Group	Qual. (2pt	Score
Active Strategies		Style	Sty l e Drift	R²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Global Equity											
		1	1	1	1	1	1	1	1	2	10
Victory RS Global R6	RGGRX	5.10/ 78.53	11.04	98.0 1	13.95/ 17.39	104.87/ 89.95	1.35	24.00	10.00	-	GE

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Victory RS Global R6	10	10	10	10	10	10	10	10
Victory INO Global INO	GE	GE	GE	GE	GE	GE	GE	GE

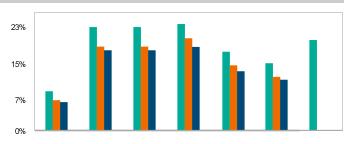
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Top 10 Holdings(%) as of 9/30/2021		Additional Information	
Apple Inc / AAPL	4.88	Prospectus Net Exp. Ratio:	0.57
Microsoft Corp / MSFT	4.53	Prospectus Gross Exp. Ratio:	0.98
Alphabet Inc Class C / GOOG	2.75	Avg Exp Ratio Morningstar (%):	0.92
Amazon.com Inc / AMZN	2.60		
Facebook Inc Class A / FB	2.30	12b-1 fees (%):	_
NVIDIA Corp / NVDA	2.04	Closed - New Inv:	_
McDonald's Corp / MCD	1.90	Closed - All Inv:	_
Johnson & Johnson / JNJ	1.78	Min Investment:	\$0
Texas Instruments Inc / TXN	1.71	Waiver Amt:	0.41
Cisco Systems Inc / CSCO	1.71	Waiver Exp Date:	4/30/2022
% in Top 10 Holdings	26.19	Strategy Inception:	5/16/2011
# of Holdings	95	Share Class Inception:	5/2/2019





Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ Victory RS Global R6	8.66%	22.84%	22.84%	23.52%	17.39%	14.85%	19.97%
MSCI ACWI NR	6.68%	18.54%	18.54%	20.38%	14.40%	11.85%	
Peer Group*	6.27%	17.72%	17.72%	18.45%	13.10%	11.21%	
Peer Group Rank*	19	13	13	4	3	1	-
Peer Group Size (funds)*	-	-	327	283	236	145	-

*Morningstar Peer Group: World Large-Stock Blend

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Fidelity Freedom Index Inc Instl Prem Category: Conservative

FFGZX 12/31/2021

Fund Strategy

The investment seeks high current income and, as a secondary objective, capital appreciation. The fund invests in a combination of Fidelity® U.S. equity funds, international equity funds, bond funds, and short-term funds (underlying Fidelity ® funds), each of which (excluding any money market fund) seeks to provide investment results that correspond to the total return of a specific index.

Fund Information			Portfolio Statistics				
		Alpha*:	0.35	P/E:	18.43		
Strategy Asset (\$ mm):	1,142.00	Beta*:	0.81	P/B:	2.64		
Share Class Assets (\$ mm):	736.00		as of date 11/30/2021	SEC Yield (%)	: -		
Share Class Assets (\$11111).	730.00			Tumover:	33.00		
Manager:	Andrew Dierdorf			as	of date 12/31/2021		
		*Roct fit i	ndov: Morningetar LIS	Con Tat Alloc N	PIIGN		

*Best fit index: Morningstar US Con Tgt Alloc NR USD

Manager Tenure: 12 Years *3-year statistic: Morningstar US Con Tgt Alloc NR USD

Scorecard

Asset Allocation Strategies		Style		Risk / Return		Peer Group			Score Components		Score		
	Ticker	Risk Level	Sty l e Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Conservative													
Fidelity Freedom		1	1	1	1	1	1	0	1	2			9
Index Inc InstI Prem	FFGZX	3.39	19.79/ 80.21	98. 32	3.39/ 5.53	102.30/ 96.51	0.59	53.00	1.00	-	9	8.7	CON

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Freedom Index Inc InstI Prem	9	9	9	9	9	9	9	9
	CON	CON	CON	CON	CON	CON	CON	CON

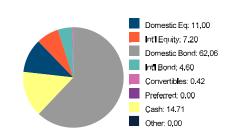
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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity® Series Bond Index / FIFZX	44.90	Prospectus Net Exp. Ratio:	0.08
Fidelity® Series Treasury Bill Index / FHQFX	18.79	Prospectus Gross Exp. Ratio:	0.08
Fidelity® Series Total Market Index / FCFMX	11.30	Avg Exp Ratio Morningstar (%):	0.48
Fidelity® Series Global ex US Index / FSGEX	7.31		
Fidelity® Series Infl-Prtct Bd Idx / FSIPX	7.08	12b-1 fees (%):	-
Fidelity® Srs 0-5 Yr Inf-Ptctd Bd Idx / FSTZX	5.99	Closed - New Inv:	-
Fidelity® Series Long-Term Trs Bd Idx / FTLTX	3.09	Closed - All Inv:	-
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	1.48	Min Investment:	\$5,000,000
-	-	Waiver Amt:	0.04
-	-	Waiver Exp Date:	6/30/2021
% in Top 10 Holdings	99.95	Strategy Inception:	10/2/2009
# of Holdings	10	Share Class Inception:	6/24/2015

Risk Bucket as of 12/31/2021

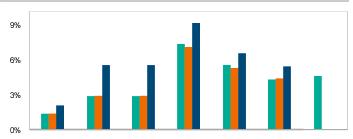
Risk Bucket	Risk Range	Risk (X
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X≤5.75	3.39

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 8.14

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Freedom Index Inc Instl Prem	1.34%	2.85%	2.85%	7.32%	5.53%	4.28%	4.58%
StyleBenchmark*	1.36%	2.88%	2.88%	7.06%	5.27%	4.37%	
Peer Group**	2.06%	5.51%	5.51%	9.11%	6.52%	5.41%	
Peer Group Rank*	76	90	90	88	85	82	-
Peer Group Size (funds)*	-	-	167	151	126	78	-

^{* 28.75%} Merrill Lynch 3-Month T-Bill, 51.46% BB Aggregate Bond, 13.23% Russell 3000, 6.57% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date Retirement

Fidelity Freedom Index 2005 Instl Prem Category: Conservative

FFGFX 12/31/2021

Fund Strategy

The investment seeks high total return until its target retirement date; thereafter the fund's objective will be to seek high current income and, as a secondary objective, capital appreciation. The fund invests in a combination of Fidelity® U.S. equity funds, international equity funds, bond funds, and short-term funds (underlying Fidelity ® funds), each of which (excluding any money market fund) seeks to provide investment results that correspond to the total return of a specific index.

Fund Information		Portf	folio Statistics			
		Alpha*:	-0.09	P/E:	18.43	
Strategy Asset (\$ mm):	263.00	Beta*:	1.00	P/B:	2.64	
Share Class Assets (\$ mm):	185.00		as of date 11/30/2021	SEC Yield (%):	-	
Onare Olass Assets (\$11111).	100.00			Turnover:	33.00	
Manager:	Andrew Dierdorf			aso	of date 12/31/2021	
		*Best fit index: Morningstar US Con Tgt Alle				
Manager Tenure:	12 Years	*3-year statistic: Morningstar US Con Tgt Alloc NR USD				

Scorecard

			Style		Risk / Return		Peer Group			Score Components		Score	
Asset Allocation Strategies Ticke		Risk Level	Sty l e Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Conservative	Conservative												
Fidelity Freedom		1	1	1	1	1	1	1	1	2			9
Index 2005 Instl Prem	FFGFX	4.26	29.13/ 70.87	97. 38	4.26/ 6.39	95.87/ 87.76	0.06	23.00	6.00	-	10	8.7	CON

	Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
	Fidelity Freedom Index 2005 Instl Prem	9	9	9	10	9	9	9	10
		CON	CON	CON	CON	CON	CON	CON	CON

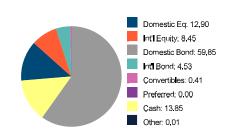
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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity® Series Bond Index / FIFZX	43.73	Prospectus Net Exp. Ratio:	0.08
Fidelity® Series Treasury Bill Index / FHQFX	17.46	Prospectus Gross Exp. Ratio:	0.08
Fidelity® Series Total Market Index / FCFMX	13.26	Avg Exp Ratio Morningstar (%):	0.47
Fidelity® Series Global ex US Index / FSGEX	8.58		
Fidelity® Series Infl-Prtct Bd Idx / FSIPX	6.68	12b-1 fees (%):	-
Fidelity® Srs 0-5 Yr Inf-Ptctd Bd Idx / FSTZX	5.36	Closed - New Inv:	-
Fidelity® Series Long-Term Trs Bd Idx / FTLTX	3.11	Closed - All Inv:	-
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	1.49	Min Investment:	\$5,000,000
Fidelity® Srs 5+ Yr Inf-Ptctd Bd Idx / FSTDX	0.27	Waiver Amt:	0.05
-	-	Waiver Exp Date:	6/30/2021
% in Top 10 Holdings	99.95	Strategy Inception:	10/2/2009
# of Holdings	11	Share Class Inception:	6/24/2015

Risk Bucket as of 12/31/2021

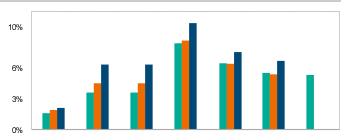
Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X≤5.75	4.26

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 8.15

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Freedom Index 2005 Instl Prem	1.56%	3.55%	3.55%	8.31%	6.39%	5.45%	5.25%
StyleBenchmark *	1.87%	4.46%	4.46%	8.58%	6.34%	5.31%	
Peer Group**	2.07%	6.26%	6.26%	10.26%	7.46%	6.61%	
Peer Group Rank*	77	95	95	95	89	91	-
Peer Group Size (funds)*	-	-	120	115	77	52	-

^{* 25.06%} Merrill Lynch 3-Month T-Bill, 45.82% BB Aggregate Bond, 17.77% Russell 3000, 11.35% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2000-2010

Fidelity Freedom Index 2010 Instl Prem Category: Conservative

FFWTX 12/31/2021

Fund Strategy

The investment seeks high total return until its target retirement date; thereafter the fund's objective will be to seek high current income and, as a secondary objective, capital appreciation. The fund invests in a combination of Fidelity® U.S. equity funds, international equity funds, bond funds, and short-term funds (underlying Fidelity® funds), each of which (excluding any money market fund) seeks to provide investment results that correspond to the total return of a specific index.

Fund Information		Portfolio Statistics				
		Alpha*:	0.19	P/E:	18.43	
Strategy Asset (\$ mm):	903.00	Beta*:	0.84	P/B:	2.64	
Share Class Assets (\$ mm):	611.00		as of date 11/30/2021	SEC Yield (%)	-	
Share Class Assets (\$11111).	011.00			Tumover:	27.00	
Manager:	Andrew Dierdorf			as	of date 12/31/2021	
		*Best fit index: Morningstar US Mod Con Tgt Alloc NR USD				
Manager Tenure:	12 Years	*3-year sta	atistic: Morningstar US	Mod Con Tgt A	Alloc NR USD	

Scorecard

			Style		Ris	sk / Retur	'n	Peer	Group		Score Components		Score
Asset Allocation Strategies	Ticker	Risk Leve l	Sty l e Diversity	R²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Conservative													
Fidelity Freedom	FFWTX	1	1	1	1	1	0	1	1	2			9
Index 2010 Instl Prem		5.51	38.35/ 61.65	98. 68	5.51/ 7.52	95.50/ 90.59	-0.08	4.00	18.00	-	9	8.7	CON
Asset Allocation	Scor	- <u>a</u>	Score		Score	S	core	Sco	re	Score	Score	Sc	ore

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Freedom Index 2010 Instl Prem	9	9	9	10	9	9	9	9
	CON	CON	CON	CON	CON	CON	CON	CON

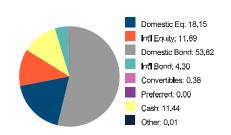
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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity® Series Bond Index / FIFZX	40.39	Prospectus Net Exp. Ratio:	0.08
Fidelity® Series Total Market Index / FCFMX	18.65	Prospectus Gross Exp. Ratio:	0.08
Fidelity® Series Treasury Bill Index / FHQFX	13.78	Avg Exp Ratio Morningstar (%):	0.47
Fidelity® Series Global ex US Index / FSGEX	12.08		
Fidelity® Series Infl-Prtct Bd Idx / FSIPX	5.63	12b-1 fees (%):	-
Fidelity® Srs 0-5 Yr Inf-Ptctd Bd Idx / FSTZX	3.67	Closed - New Inv:	-
Fidelity® Series Long-Term Trs Bd Idx / FTLTX	3.17	Closed - All Inv:	-
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	1.50	Min Investment:	\$5,000,000
Fidelity® Srs 5+ Yr Inf-Ptctd Bd Idx / FSTDX	1.08	Waiver Amt:	0.05
-	-	Waiver Exp Date:	6/30/2021
% in Top 10 Holdings	99.95	Strategy Inception:	10/2/2009
# of Holdings	11	Share Class Inception:	6/24/2015

Risk Bucket as of 12/31/2021

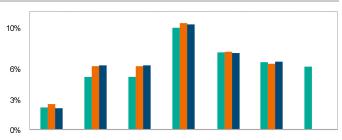
Risk Bucket	Risk Range	Risk (X
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X≤5.75	5.51

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 8.15

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Freedom Index 2010 Instl Prem	2.14%	5.14%	5.14%	9.93%	7.52%	6.57%	6.14%
■ StyleBenchmark*	2.47%	6.18%	6.18%	10.39%	7.59%	6.42%	
■ Peer Group**	2.07%	6.26%	6.26%	10.26%	7.46%	6.61%	
Peer Group Rank*	52	71	71	66	59	68	-
Peer Group Size (funds)*	-	-	120	115	77	52	-

^{* 17.75%} Merrill Lynch 3-Month T-Bill, 43.90% BB Aggregate Bond, 23.62% Russell 3000, 14.73% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2000-2010

Fidelity Freedom Index 2015 Instl Prem Category: Moderate Conservative

FIWFX 12/31/2021

Fund Strategy

The investment seeks high total return until its target retirement date; thereafter the fund's objective will be to seek high current income and, as a secondary objective, capital appreciation. The fund invests in a combination of Fidelity® U.S. equity funds, international equity funds, bond funds, and short-term funds (underlying Fidelity® funds), each of which (excluding any money market fund) seeks to provide investment results that correspond to the total return of a specific index.

Fund Information	Portfolio Statistics					
		Alpha*:	-0.31	P/E:	18.43	
Strategy Asset (\$ mm):	2,613.00	Beta*:	1.04	P/B:	2.64	
Share Class Assets (\$ mm):	1.401.00		as of date 11/30/2021	SEC Yield (%):	-	
Share Class Assets (\$11111).	1,401.00			Tumover:	30.00	
Manager:	Andrew Dierdorf			as	of date 12/31/2021	
		*Best fit index: Morningstar US Mod Con Tgt Alloc NR USD				
Manager Tenure:	12 Years	*3-year s	statistic: Morningstar US	Mod Con Tgt Al	lloc NR USD	

Scorecard

			Style		Risk / Return		Peer Group			Score Components		Score	
Asset Allocation Strategies	Ticker	Risk Level	Sty l e Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Moderate Conservative													
Fidelity Freedom		1	1	1	1	1	0	1	1	2			9
Index 2015 Instl Prem	FIWFX	6.81	46.18/ 53.82	99. 26	6.81/ 8.67	96.85/ 93.70	-0.07	8.00	9.00	-	9	8.7	MC

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Freedom	9	9	9	10	9	9	9	10
Index 2015 Instl Prem	MC	MC	MC	MC	MC	MC	MC	MC

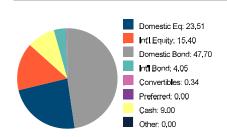
The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity® Series Bond Index / FIFZX	36.77	Prospectus Net Exp. Ratio:	0.08
Fidelity® Series Total Market Index / FCFMX	24.17	Prospectus Gross Exp. Ratio:	0.08
Fidelity® Series Global ex US Index / FSGEX	15.64	Avg Exp Ratio Morningstar (%):	0.44
Fidelity® Series Treasury Bill Index / FHQFX	10.03		
Fidelity® Series Infl-Prtct Bd Idx / FSIPX	4.71	12b-1 fees (%):	-
Fidelity® Series Long-Term Trs Bd Idx / FTLTX	3.25	Closed - New Inv:	-
Fidelity® Srs 0-5 Yr Inf-Ptctd Bd Idx / FSTZX	1.99	Closed - All Inv:	-
Fidelity® Srs 5+ Yr Inf-Ptctd Bd Idx / FSTDX	1.89	Min Investment:	\$5,000,000
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	1.51	Waiver Amt:	0.05
-	-	Waiver Exp Date:	6/30/2021
% in Top 10 Holdings	99.96	Strategy Inception:	10/2/2009
# of Holdings	11	Share Class Inception:	6/24/2015

Risk Bucket as of 12/31/2021

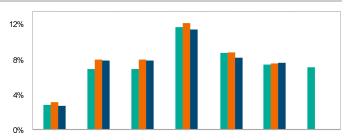
Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	6.81
Conservative	3.00X≤5.75	-

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 8.15

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Freedom Index 2015 Instl Prem	2.77%	6.83%	6.83%	11.58%	8.67%	7.34%	7.04%
■ StyleBenchmark *	3.08%	7.91%	7.91%	12.04%	8.72%	7.46%	
■ Peer Group**	2.67%	7.79%	7.79%	11.31%	8.12%	7.53%	
Peer Group Rank*	41	75	75	47	20	75	-
Peer Group Size (funds)*	-	-	122	117	88	44	-

^{* 12.62%} Merrill Lynch 3-Month T-Bill, 41.20% BB Aggregate Bond, 29.96% Russell 3000, 16.21% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2015

Fidelity Freedom Index 2020 Instl Prem Category: Moderate

FIWTX 12/31/2021

Fund Strategy

The investment seeks high total return until its target retirement date; thereafter the fund's objective will be to seek high current income and, as a secondary objective, capital appreciation. The fund invests in a combination of Fidelity® U.S. equity funds, international equity funds, bond funds, and short-term funds (underlying Fidelity ® funds), each of which (excluding any money market fund) seeks to provide investment results that correspond to the total return of a specific index.

invocation incodic and correspond to and	total retain of a openio in	dox.					
Fund Information	Portfolio Statistics						
		Alpha*:	1.18	P/E:	18.43		
Strategy Asset (\$ mm):	8,972.00	Beta*:	0.75	P/B:	2.64		
Share Class Assets (\$ mm):	5.328.00		as of date 11/30/2021	SEC Yield (%):	-		
Official Class Assets (\$11111).	3,320.00			Tumover:	28.00		
Manager:	Andrew Dierdorf			as	of date 12/31/2021		
		*Best fit i	index: Morningstar Lifeti	me Mod 2030 TF	RUSD		
Manager Tenure:	12 Years	*3-year s	statistic: Morningstar Life	etime Mod 2030	TR USD		

Scorecard

		Style		Ris	Risk / Return			Peer Group		Score Components		Score	
Asset Allocation Strategies	Ticker	LISK	Sty l e Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Moderate													
Fidelity Freedom		1	1	1	1	1	0	1	1	2			9
Fidelity Freedom Index 2020 Instl Prem	FIWTX	7.97	53.42/ 46.58	99. 62	7.97/ 9.63	97.88/ 96.45	-0.13	27.00	9.00	-	9	8.7	MOD

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Freedom	9	9	9	10	9	9	9	10
Index 2020 InstI Prem	MOD	MOD	MOD	MOD	MOD	MOD	MOD	MC

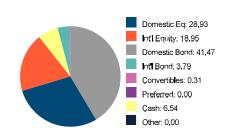
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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity® Series Bond Index / FIFZX	33.06	Prospectus Net Exp. Ratio:	0.08
Fidelity® Series Total Market Index / FCFMX	29.76	Prospectus Gross Exp. Ratio:	0.08
Fidelity® Series Global ex US Index / FSGEX	19.24	Avg Exp Ratio Morningstar (%):	0.43
Fidelity® Series Treasury Bill Index / FHQFX	6.26		
Fidelity® Series Infl-Prtct Bd Idx / FSIPX	3.83	12b-1 fees (%):	-
Fidelity® Series Long-Term Trs Bd ldx / FTLTX	3.33	Closed - New Inv:	-
Fidelity® Srs 5+ Yr Inf-Ptctd Bd Idx / FSTDX	2.69	Closed - All Inv:	-
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	1.51	Min Investment:	\$5,000,000
Fidelity® Srs 0-5 Yr Inf-Ptctd Bd Idx / FSTZX	0.27	Waiver Amt:	0.05
-	-	Waiver Exp Date:	6/30/2021
% in Top 10 Holdings	99.96	Strategy Inception:	10/2/2009
# of Holdings	10	Share Class Inception:	6/24/2015

Risk Bucket as of 12/31/2021

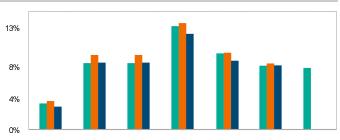
Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	7.97
Moderate Conservative	5.75X≤7.75	-
Conservative	3.00X≤5.75	-

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 8.15

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Freedom Index 2020 Instl Prem	3.29%	8.39%	8.39%	13.07%	9.63%	8.08%	7.78%
StyleBenchmark*	3.60%	9.42%	9.42%	13.47%	9.71%	8.35%	
Peer Group**	2.88%	8.45%	8.45%	12.11%	8.70%	8.11%	
Peer Group Rank*	25	60	60	31	12	61	-
Peer Group Size (funds)*	-	-	171	160	126	64	-

^{* 8.19%} Merrill Lynch 3-Month T-Bill, 38.39% BB Aggregate Bond, 35.14% Russell 3000, 18.28% MSCI ACWI Index ex USA ND USD

P

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^{**} Morningstar Peer Group: Target-Date 2020

Fidelity Freedom Index 2025 Instl Prem Category: Moderate

FFEDX 12/31/2021

Fund Strategy

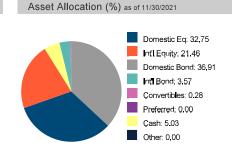
The investment seeks high total return until its target retirement date: thereafter the fund's objective will be to seek high current income and, as a secondary objective, capital appreciation. The fund invests in a combination of Fidelity® U.S. equity funds, international equity funds, bond funds, and short-term funds (underlying Fidelity ® funds), each of which (excluding any money market fund) seeks to provide investment results that correspond to the total return of a specific index

investment results that correspond to the	total retain of a specific in	dex.							
Fund Information			Portfolio Statistics						
		Alpha*:	-0.42	P/E:	18.43				
Strategy Asset (\$ mm):	14,114.00	Beta*:	0.94	P/B:	2.64				
Share Class Assets (\$ mm):	8.615.00		as of date 11/30/2021	SEC Yield (%):	-				
Silate Class Assets (\$11111).	0,013.00			Tumover:	26.00				
Manager:	Andrew Dierdorf			as	of date 12/31/2021				
		*Best fit index: Morningstar US Mod Tgt Alloc NR USD							

Manager Tenure: *3-year statistic: Morningstar US Mod Tgt Alloc NR USD

Risk Bucket Risk (X) Risk Range Aggressive 13.00X≤15.25 10.50X≤13.00 Moderate Aggressive Moderate 7.75X≤10.50 8.91 Moderate Conservative 5.75X≤7.75 Conservative 3.00X≤5.75

Risk Bucket as of 12/31/2021



% Emerging Mkt: 8.16

Scorecard

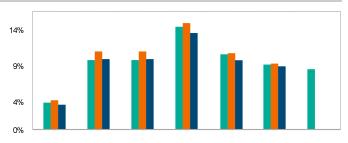
			Style		Ris	k / Retur	n	Peer	Group		Score Co	nponents	Score
Asset Allocation Strategies	Ticker	Risk Leve l	Sty l e Diversity	R²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Moderate													
Fidelity Freedom		1	1	1	1	1	0	1	1	2			9
Index 2025 Instl Prem	FFEDX	8.91	60.62/ 39.38	99. 66	8.91/ 10.41	96.77/ 95.31	-0.26	16.00	13.00	-	9	8.7	MOD
Asset Allocation	Sco	re	Score		Score	s	core	Sco	re	Score	Score	Sc	ore

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Freedom	9	9	9	9	9	9	9	10
Index 2025 Instl Prem	MOD	MOD	MOD	MOD	MOD	MOD	MOD	MOD

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity® Series Total Market Index / FCFMX	33.67	Prospectus Net Exp. Ratio:	0.08
Fidelity® Series Bond Index / FIFZX	30.27	Prospectus Gross Exp. Ratio:	0.08
Fidelity® Series Global ex US Index / FSGEX	21.79	Avg Exp Ratio Morningstar (%):	0.45
Fidelity® Series Treasury Bill Index / FHQFX	3.93		
Fidelity® Series Long-Term Trs Bd Idx / FTLTX	3.49	12b-1 fees (%):	-
Fidelity® Series Infl-Prtct Bd Idx / FSIPX	3.22	Closed - New Inv:	-
Fidelity® Srs 5+ Yr Inf-Ptctd Bd Idx / FSTDX	2.11	Closed - All Inv:	-
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	1.49	Min Investment:	\$5,000,000
-	-	Waiver Amt:	0.05
-	-	Waiver Exp Date:	6/30/2021
% in Top 10 Holdings	99.96	Strategy Inception:	10/2/2009
# of Holdings	9	Share Class Inception:	6/24/2015

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Freedom Index 2025 Instl Prem	3.72%	9.62%	9.62%	14.24%	10.41%	8.99%	8.35%
StyleBenchmark *	4.05%	10.82%	10.82%	14.75%	10.58%	9.13%	
Peer Group**	3.43%	9.75%	9.75%	13.36%	9.59%	8.76%	
Door Croup Book*	27	62	~	35	25	49	
Peer Group Rank*	21	02	62	30	25	49	-
Peer Group Size (funds)*	-	-	220	203	167	88	-
	o/ BB 4		0 5 4 0 / D			01471	

^{*5.11%} Merrill Lynch 3-Month T-Bill, 34.28% BB Aggregate Bond, 39.51% Russell 3000, 21.11% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2025

Fidelity Freedom Index 2030 Instl Prem Category: Moderate

FFEGX 12/31/2021

Fund Strategy

The investment seeks high total return until its target retirement date; thereafter the fund's objective will be to seek high current income and, as a secondary objective, capital appreciation. The fund invests in a combination of Fidelity® U.S. equity funds, international equity funds, bond funds, and short-term funds (underlying Fidelity® funds), each of which (excluding any money market fund) seeks to provide investment results that correspond to the total return of a specific index.

investment results that correspond to the	ie total retuiri of a specific in	uex.					
Fund Information			Portfolio Statistics				
		Alpha*:	-1.05	P/E:	18.43		
Strategy Asset (\$ mm):	17,227.00	Beta*:	1.09	P/B:	2.64		
Share Class Assets (\$ mm):	11.052.00		as of date 11/30/2021	SEC Yield (%):	-		
Onare Olass Assets (\$11111).	11,002.00			Tumover:	26.00		
Manager:	Andrew Dierdorf			as	of date 12/31/2021		
		*Best fit i	RUSD				
Manager Tenure:	12 Years	*3-year s	statistic: Morningstar US	S Mod Tgt Alloc I	NR USD		

Scorecard

Index 2030 Instl Prem

			Style		Ris	k / Retu	rn	Peer	Group		Score Co	mponents	Score
Asset Allocation Strategies Ticker	Ticker	Risk Level	Sty l e Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank		Allocation	Selection	Q4 2021
Moderate													
Fidelity Freedom	Fidelity Francisco	1	1	1	1	1	0	1	1	2			9
Index 2030 Insti Prem	10.39	70.26/ 29.74	99. 48	10.39/ 11.59	96.93/ 96.36	-0.29	10.00	18.00	-	9	8.7	MOD	
Asset Allocation Strategies	Sco 12/31/		Score 9/30/202	1	Score 6/30/2021		Score 1/2021	Scc 12/31/		Score 9/30/2020	Score 6/30/202		ore /2020
Fidelity Freedom	9		9	Т	9		10	9		9	9	1	10

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

MOD

MOD

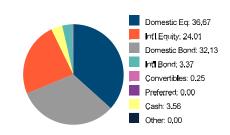
MOD

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity® Series Total Market Index / FCFMX	37.71	Prospectus Net Exp. Ratio:	0.08
Fidelity® Series Bond Index / FIFZX	27.62	Prospectus Gross Exp. Ratio:	0.08
Fidelity® Series Global ex US Index / FSGEX	24.39	Avg Exp Ratio Morningstar (%):	0.46
Fidelity® Series Long-Term Trs Bd Idx / FTLTX	3.63		
Fidelity® Series Infl-Prtct Bd Idx / FSIPX	2.69	12b-1 fees (%):	-
Fidelity® Series Treasury Bill Index / FHQFX	1.63	Closed - New Inv:	-
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	1.48	Closed - All Inv:	-
Fidelity® Srs 5+ Yr Inf-Ptctd Bd Idx / FSTDX	0.83	Min Investment:	\$5,000,000
-	-	Waiver Amt:	0.06
-	-	Waiver Exp Date:	6/30/2021
% in Top 10 Holdings	99.97	Strategy Inception:	10/2/2009
# of Holdings	10	Share Class Inception:	6/24/2015

Risk Bucket as of 12/31/2021

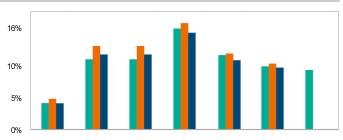
Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	10.39
Moderate Conservative	5.75X≤7.75	-
Conservative	3.00X≤5.75	-

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 8.15

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Freedom Index 2030 Instl Prem	4.10%	10.94%	10.94%	15.73%	11.59%	9.84%	9.25%
■ StyleBenchmark *	4.77%	13.01%	13.01%	16.58%	11.83%	10.27%	
■ Peer Group**	4.08%	11.68%	11.68%	15.08%	10.79%	9.63%	
Peer Group Rank*	47	77	77	35	20	48	-
Peer Group Size (funds)*	-	-	221	202	167	93	-

^{* 2.31%} Merrill Lynch 3-Month T-Bill, 27.43% BB Aggregate Bond, 46.95% Russell 3000, 23.31% MSCI ACWI Index ex USA ND USD

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Contact (215) 557-7622 for most recent month end performance.

MA

^{**} Morningstar Peer Group: Target-Date 2030

Fidelity Freedom Index 2035 Instl Prem Category: Moderate Aggressive

FFEZX 12/31/2021

Fund Strategy

The investment seeks high total return until its target retirement date; thereafter the fund's objective will be to seek high current income and, as a secondary objective, capital appreciation. The fund invests in a combination of Fidelity® U.S. equity funds, international equity funds, bond funds, and short-term funds (underlying Fidelity® funds), each of which (excluding any money market fund) seeks to provide investment results that correspond to the total return of a specific index.

Fund Information	Portfolio Statistics						
		Alpha*:	-0.78	P/E:	18.43		
Strategy Asset (\$ mm):	14,957.00	Beta*:	1.04	P/B:	2.64		
Share Class Assets (\$ mm):	9.523.00		as of date 11/30/2021	SEC Yield (%):	-		
Oriale Olass Assets (Willin).	0,020.00			Turnover:	24.00		
Manager:	Andrew Dierdorf			as o	of date 12/31/2021		
		*Best fit index: Morningstar US Mod Agg Tgt Alloc NR USD					
Manager Tenure:	12 Years	*3-year statistic: Morningstar US Mod Agg Tgt Alloc NR USD					

Scorecard

		Style		Ri	sk / Retur	n	Peer Group			Score Components		Score	
Asset Allocation Strategies	Ticker	Risk Leve l	Sty l e Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Moderate Aggressive	Moderate Aggressive												
Fidelity Freedom		1	1	1	1	0	0	1	1	2			8
Index 2035 Instl Prem	FFEZX	12.49	82.42/ 17.58	99. 69	12.49/ 13.05	98.74/ 100.02	-0.42	15.00	23.00	-	8	8.7	MA
Asset Allocation	Sco	re	Score		Score	S	core	Sco	re	Score	Score	Sc	ore

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Freedom	8	8	8	10	9	9	9	10
Index 2035 Instl Prem	MA	MA	MA	MA	MA	MA	MA	MA

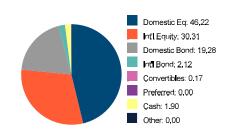
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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity® Series Total Market Index / FCFMX	47.26	Prospectus Net Exp. Ratio:	0.08
Fidelity® Series Global ex US Index / FSGEX	30.61	Prospectus Gross Exp. Ratio:	0.08
Fidelity® Series Bond Index / FIFZX	17.45	Avg Exp Ratio Morningstar (%):	0.46
Fidelity® Series Long-Term Trs Bd Idx / FTLTX	3.75		
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	0.92	12b-1 fees (%):	-
-	-	Closed - New Inv:	-
-	-	Closed - All Inv:	-
-	-	Min Investment:	\$5,000,000
-	-	Waiver Amt:	0.06
-	_	Waiver Exp Date:	6/30/2021
% in Top 10 Holdings	99.98	Strategy Inception:	10/2/2009
# of Holdings	6	Share Class Inception:	6/24/2015

Risk Bucket as of 12/31/2021

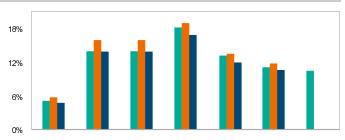
Risk Bucket	Risk Range	Risk (X
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	12.49
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X≤5.75	-

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 8.16

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Freedom Index 2035 Instl Prem	5.04%	13.80%	13.80%	18.02%	13.05%	10.97%	10.36%
StyleBenchmark *	5.67%	15.80%	15.80%	18.80%	13.35%	11.65%	
■ Peer Group**	4.71%	13.76%	13.76%	16.70%	11.84%	10.51%	
Peer Group Rank*	30	53	53	18	11	33	_
Peer Group Size (funds)*	-		213	200	164	85	
reel Gloup Size (Idilds)	-	-	210	200	104	ω	-

^{* 0.04%} Merrill Lynch 3-Month T-Bill, 17.54% BB Aggregate Bond, 56.08% Russell 3000, 26.34% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2035

Fidelity Freedom Index 2040 Instl Prem Category: Aggressive

FFIZX 12/31/2021

Fund Strategy

The investment seeks high total return until its target retirement date; thereafter the fund's objective will be to seek high current income and, as a secondary objective, capital appreciation. The fund invests in a combination of Fidelity® U.S. equity funds, international equity funds, bond funds, and short-term funds (underlying Fidelity ® funds), each of which (excluding any money market fund) seeks to provide investment results that correspond to the total return of a specific index.

Fund Information			Portfolio Statistics								
		Alpha*:	0.73	P/E:	18.43						
Strategy Asset (\$ mm):	14,698.00	Beta*:	0.91	P/B:	2.64						
Share Class Assets (\$ mm):	9.670.00		as of date 11/30/2021	SEC Yield (%):	-						
Share Class Assets (\$11111).	9,070.00			Tumover:	20.00						
Manager:	Andrew Dierdorf			as	of date 12/31/2021						

*Best fit index: MSCI ACWI NR USD

Manager Tenure: 12 Years *3-year statistic: MSCI ACWI NR USD

Scorecard

		Sty l e			Ri	Risk / Return				Group		Score Components		Score
Asset Allocation Strategies	Ticker Risk Style Level Diversity R2 Risk / Up / Info			Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021					
Aggressive														
Fidelity Freedom		1	1	1	0	0		0	1	1	2			8
Index 2040 Instl Prem	FFIZX	13.51	86.91/ 13.09	99. 84				0.27	14.00	13.00	-	7	8.7	AGG
Asset Allocation Strategies	Sc 12/31	ore /2021	Score 9/30/20			Score Score 6/30/2021 3/31/2021		Scc 12/31/		Score 9/30/2020	Score 6/30/202		ore /2020	
Fidelity Freedom		В	8		9	9 9		9		8	8		8	
Index 2040 Instl Prem	AC	aG.	AGG		AGG		AG	G	AG	G	AGG	AGG	A	3G

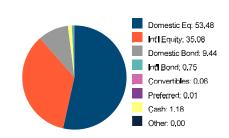
The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity® Series Total Market Index / FCFMX	54.34	Prospectus Net Exp. Ratio:	0.08
Fidelity® Series Global ex US Index / FSGEX	35.20	Prospectus Gross Exp. Ratio:	80.0
Fidelity® Series Bond Index / FIFZX	6.38	Avg Exp Ratio Morningstar (%):	0.46
Fidelity® Series Long-Term Trs Bd Idx / FTLTX	3.76		
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	0.31	12b-1 fees (%):	-
-	-	Closed - New Inv:	-
-	-	Closed - All Inv:	-
-	-	Min Investment:	\$5,000,000
-	-	Waiver Amt:	0.06
-	-	Waiver Exp Date:	6/30/2021
% in Top 10 Holdings	99.99	Strategy Inception:	10/2/2009
# of Holdings	7	Share Class Inception:	6/24/2015

Risk Bucket as of 12/31/2021

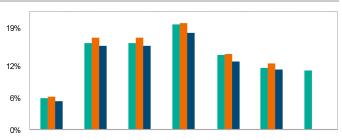
Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	13.51
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X≤5.75	-

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 8.16

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Freedom Index 2040 InstI Prem	5.79%	15.97%	15.97%	19.43%	13.78%	11.38%	10.92%
■ StyleBenchmark*	6.05%	16.98%	16.98%	19.68%	13.94%	12.20%	
■ Peer Group**	5.21%	15.47%	15.47%	17.86%	12.56%	11.08%	
Peer Group Rank*	24	39	39	14	10	41	
reel Gloup Ralik	24	39	39	14	10	41	-
Peer Group Size (funds)*	-	-	215	202	167	93	-

^{* 0.00%} Merrill Lynch 3-Month T-Bill, 13.09% BB Aggregate Bond, 60.18% Russell 3000, 26.73% MSCI ACWI Index ex USA ND USD

The performance analysis displayed is reflective of past performance. Past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate over time. Current performance may differ from the performance displayed. Investing includes risk, including potential loss of principal. Carefully consider any and all investment objectives, risk factors and charges and expenses before investing. Contact your financial advisor or consultant for funds current performance and a copy of the most recent prospectus.

^{**} Morningstar Peer Group: Target-Date 2040

Fidelity Freedom Index 2045 Instl Prem Category: Aggressive

FFOLX 12/31/2021

Fund Strategy

The investment seeks high total return until its target retirement date; thereafter the fund's objective will be to seek high current income and, as a secondary objective, capital appreciation. The fund invests in a combination of Fidelity® U.S. equity funds, international equity funds, bond funds, and short-term funds (underlying Fidelity ® funds), each of which (excluding any money market fund) seeks to provide investment results that correspond to the total return of a specific index.

Fund Information	Portf	Portfolio Statistics						
		Alpha*:	0.74	P/E:	18.43			
Strategy Asset (\$ mm):	11,656.00	Beta*:	0.91	P/B:	2.64			
Share Class Assets (\$ mm):	7.573.00		as of date 11/30/2021	SEC Yield (%):	-			
oriare oldes / tosets (\$ mm).	1,010.00			Turnover:	20.00			
Manager:	Andrew Dierdorf			as o	f date 12/31/2021			

*Best fit index: MSCI ACWI NR USD

Manager Tenure: 12 Years *3-year statistic: MSCI ACWI NR USD

Scorecard

			Style		Ri	sk / Retur	'n	Peer	Group		Score Components		Score
Asset Allocation Strategies	gies ^{Ticker} Risk Style _R 2 Risk/ Up/ Info F		Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021					
Aggressive													
Fidelity Freedom Index 2045 Instl Prem		1	1	1	0	0	0	1	1	2			8
	FFOLX	13.51	87.13/ 12.87	99. 84	13.51/ 13.78	100.55/ 102.04	-0.26	14.00	13.00	-	7	8.7	AGG
Asset Allocation Strategies	Scc 12/31/		Score 9/30/202	21	Score 6/30/202		Score 1/2021	Scc 12/31.		Score 9/30/2020	Score 6/30/202		ore /2020
Fidelity Freedom	8		8		9		9	9		8	8		8
Index 2045 Instl Prem	AG	G	AGG		AGG		AGG	AG	iG	AGG	AGG	A	3G

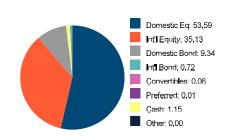
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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity® Series Total Market Index / FCFMX	54.43	Prospectus Net Exp. Ratio:	0.08
Fidelity® Series Global ex US Index / FSGEX	35.25	Prospectus Gross Exp. Ratio:	0.08
Fidelity® Series Bond Index / FIFZX	6.29	Avg Exp Ratio Morningstar (%):	0.46
Fidelity® Series Long-Term Trs Bd Idx / FTLTX	3.74		
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	0.28	12b-1 fees (%):	-
-	-	Closed - New Inv:	-
-	-	Closed - All Inv:	-
-	-	Min Investment:	\$5,000,000
-	-	Waiver Amt:	0.06
-	-	Waiver Exp Date:	6/30/2021
% in Top 10 Holdings	99.99	Strategy Inception:	10/2/2009
# of Holdings	6	Share Class Inception:	6/24/2015

Risk Bucket as of 12/31/2021

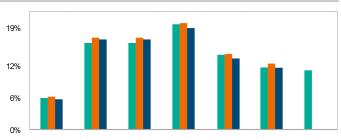
Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	13.51
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75X≤7.75	-
Conservative	3.00X≤5.75	-

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 8.16

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ Fidelity Freedom Index 2045 Instl Prem	5.80%	15.97%	15.97%	19.43%	13.78%	11.45%	10.92%
StyleBenchmark *	6.04%	16.97%	16.97%	19.66%	13.93%	12.18%	
■ Peer Group**	5.56%	16.63%	16.63%	18.73%	13.11%	11.41%	
Peer Group Rank*	47	71	71	32	20	50	-
Peer Group Size (funds)*	-	-	213	200	164	84	-

^{* 0.00%} Merrill Lynch 3-Month T-Bill, 12.87% BB Aggregate Bond, 59.95% Russell 3000, 27.18% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2045

Fidelity Freedom Index 2050 Instl Prem Category: Aggressive

FFOPX 12/31/2021

Fund Strategy

The investment seeks high total return until its target retirement date; thereafter the fund's objective will be to seek high current income and, as a secondary objective, capital appreciation. The fund invests in a combination of Fidelity® U.S. equity funds, international equity funds, bond funds, and short-term funds (underlying Fidelity ® funds), each of which (excluding any money market fund) seeks to provide investment results that correspond to the total return of a specific index.

Fund Information		Portfolio Statistics							
		Alpha*:	0.72	P/E:	18.43				
Strategy Asset (\$ mm):	10,350.00	Beta*:	0.91	P/B:	2.64				
Share Class Assets (\$ mm):	6.834.00		as of date 11/30/2021	SEC Yield (%):	-				
Share Class Assets (\$11111).	0,004.00			Tumover:	20.00				
Manager:	Andrew Dierdorf			as	of date 12/31/2021				

*Best fit index: MSCI ACWI NR USD

Manager Tenure: 12 Years *3-vear statistic: MSCI ACWI NR USD

AGG

Scorecard

Index 2050 Instl Prem

	Style Risk / Return		1	Peer	Group	Qual.	Score Components		Score					
Asset Allocation Strategies	Ticker	Risk Level	Sty l e Diversity	R ²	Risk / Return		p / own	Info Ratio	Return Rank	SR Ratio Rank	(2pt max)	Allocation	Selection	Q4 2021
Aggressive														
Fidelity Freedom	it. Francisco	1	1	1	0 0 13.53/ 100.31/ 13.79 101.67		0	0	1	1	2			8
Index 2050 Instl Prem	FFOPX	13.53	87.61/ 12.39	99. 86				-0.29	14.00	13.0	-	7	8.7	AGG
Asset Allocation Strategies	Sco 12/31/		Score 9/30/202	1	Score 6/30/202	1	Score 1 3/31/2021		Sco 12/31/		Score 9/30/2020	Score 6/30/202		ore /2020
Fidelity Freedom	8		8		8			9	9		8	8		8

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

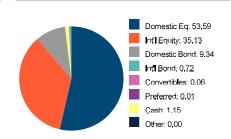
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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity® Series Total Market Index / FCFMX	54.43	Prospectus Net Exp. Ratio:	0.08
Fidelity® Series Global ex US Index / FSGEX	35.25	Prospectus Gross Exp. Ratio:	0.08
Fidelity® Series Bond Index / FIFZX	6.29	Avg Exp Ratio Morningstar (%):	0.47
Fidelity® Series Long-Term Trs Bd Idx / FTLTX	3.74		
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	0.28	12b-1 fees (%):	-
-	-	Closed - New Inv:	-
-	-	Closed - All Inv:	-
-	-	Min Investment:	\$5,000,000
-	-	Waiver Amt:	0.06
-	-	Waiver Exp Date:	6/30/2021
% in Top 10 Holdings	99.99	Strategy Inception:	10/2/2009
# of Holdings	7	Share Class Inception:	6/24/2015

Risk Bucket as of 12/31/2021

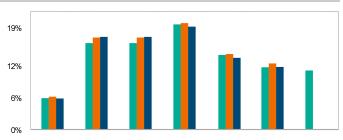
Risk Bucket	Risk Range	Risk (X)	
Aggressive	13.00X≤15.25	13.53	
Moderate Aggressive	10.50X≤13.00	-	
Moderate	7.75X≤10.50	-	
Moderate Conservative	5.75 X ≤7.75	-	
Conservative	3.00X≤5.75	-	

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 8.16

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Freedom Index 2050 Instl Prem	5.79%	15.98%	15.98%	19.44%	13.79%	11.50%	10.92%
■ StyleBenchmark *	6.04%	17.00%	17.00%	19.69%	13.95%	12.20%	
■ Peer Group**	5.73%	17.12%	17.12%	19.01%	13.26%	11.56%	
Peer Group Rank*	53	85	85	45	28	53	-
Peer Group Size (funds)*	-	-	215	202	167	85	-

^{* 0.00%} Merrill Lynch 3-Month T-Bill, 12.39% BB Aggregate Bond, 59.88% Russell 3000, 27.72% MSCI ACWI Index ex USA ND USD

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Contact (215) 557-7622 for most recent month end performance.

AGG

^{**} Morningstar Peer Group: Target-Date 2050

Fidelity Freedom Index 2055 Instl Prem Category: Aggressive

FFLDX 12/31/2021

Fund Strategy

The investment seeks high total return until its target retirement date; thereafter the fund's objective will be to seek high current income and, as a secondary objective, capital appreciation. The fund invests in a combination of Fidelity® U.S. equity funds, international equity funds, bond funds, and short-term funds (underlying Fidelity ® funds), each of which (excluding any money market fund) seeks to provide investment results that correspond to the total return of a specific index.

· ·	'						
Fund Information	Portfolio Statistics						
		Alpha*:	0.72	P/E:	18.43		
Strategy Asset (\$ mm):	6,199.00	Beta*:	0.91	P/B:	2.64		
Share Class Assets (\$ mm):	4.262.00		as of date 11/30/2021	SEC Yield (%)	: -		
Share Class Assets (\$ IIIII).	4,202.00			Turnover:	21.00		
Manager:	Andrew Dierdorf			as	of date 12/31/2021		

*Best fit index: MSCI ACWI NR USD

Manager Tenure: 11 Years *3-year statistic: MSCI ACWI NR USD

Scorecard

	Style		Style	tyle Risk / Return			Peer Group			Score Co	mponents	Score	
Asset Allocation Strategies Ticker Risk Style Level Diversity R ² Risk / Up / Info Return Rank Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021									
Aggressive													
Eidolity Eroodom		1	1	1	0	0	0	1	1	2			8
Fidelity Freedom Index 2055 Instl Prem	FFLDX	13.51	87.81/ 12.19	99. 85	13.51/ 13.78	100.10/ 101.28	-0.29	14.00	13.00	-	7	8.7	AGG
Asset Allocation Strategies	Scc 12/31		Score 9/30/202	21	Score 6/30/202		core 1/2021	Scc 12/31/		Score 9/30/2020	Score 6/30/202		ore /2020
Fidelity Freedom	8		8		8		9	9		8	8		8
Index 2055 Instl Prem	AG	G	AGG		AGG		AGG	AG	iG	AGG	AGG	A	3G

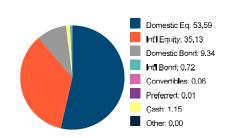
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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity® Series Total Market Index / FCFMX	54.43	Prospectus Net Exp. Ratio:	0.08
Fidelity® Series Global ex US Index / FSGEX	35.25	Prospectus Gross Exp. Ratio:	0.08
Fidelity® Series Bond Index / FIFZX	6.29	Avg Exp Ratio Morningstar (%):	0.46
Fidelity® Series Long-Term Trs Bd Idx / FTLTX	3.74		
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	0.28	12b-1 fees (%):	_
-	-	Closed - New Inv:	_
-	-	Closed - All Inv:	_
-	-	Min Investment:	\$5,000,000
-	-	Waiver Amt:	0.06
-	-	Waiver Exp Date:	6/30/2021
% in Top 10 Holdings	99.99	Strategy Inception:	6/1/2011
# of Holdings	6	Share Class Inception:	6/24/2015

Risk Bucket as of 12/31/2021

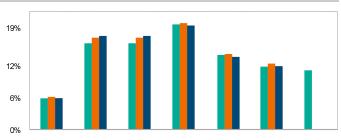
Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	13.51
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75X≤7.75	-
Conservative	3.00X≤5.75	-

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 8.16

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Freedom Index 2055 Instl Prem	5.75%	15.92%	15.92%	19.42%	13.78%	11.60%	10.92%
■ StyleBenchmark*	6.02%	16.97%	16.97%	19.67%	13.94%	12.18%	
■ Peer Group**	5.77%	17.30%	17.30%	19.21%	13.40%	11.69%	
Peer Group Rank*	58	88	88	53	37	56	-
Peer Group Size (funds)*	-	-	213	200	162	64	-

^{* 0.00%} Merrill Lynch 3-Month T-Bill, 12.19% BB Aggregate Bond, 59.59% Russell 3000, 28.22% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2055

Fidelity Freedom Index 2060 Instl Prem Category: Aggressive

FFLEX 12/31/2021

Fund Strategy

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investment results that correspond to the	total return of a specific int	Jex.				
Fund Information	Portfolio Statistics					
		Alpha*:	0.72	P/E:	18.43	
Strategy Asset (\$ mm):	2,659.00	Beta*:	0.91	P/B:	2.64	
Share Class Assets (\$ mm):	1.795.00		as of date 11/30/2021	SEC Yield (%):	-	
Share clase / tesses (\$ mm).	1,7 00100			Turnover:	24.00	
Manager:	Andrew Dierdorf			as of	date 12/31/2021	

*Best fit index: MSCI ACWI NR USD
7 Years *3-year statistic: MSCI ACWI NR USD

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Manager Tenure: Scorecard

Index 2060 Instl Prem

			Style		Ri	sk / Ret	urn	Peer	Group		Score Co	mponents	Score
Asset Allocation Strategies	Ticker	LISK	Style Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Aggressive													
Fidelity Freedom		1	1	1	0	0	0	1	1	2			8
Index 2060 Instl Prem	FFLEX ndex 2060 Instl Prem	13.54	88.27/ 11.73	99. 84	13.54/ 13.80	99.64 100.66	-0.33	14.00	13.00	-	7	8.7	AGG
Asset Allocation Strategies	Scc 12/31		Score 9/30/202	1	Score 6/30/202		Score 31/2021	Scc 12/31.		Score 9/30/2020	Score 6/30/202		ore /2020
Fidelity Freedom	8		8		8		8	9)	8	8		8

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AGG

AGG

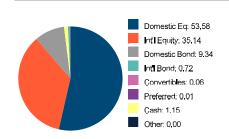
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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
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Fidelity® Series Global ex US Index / FSGEX	35.25	Prospectus Gross Exp. Ratio:	0.08
Fidelity® Series Bond Index / FIFZX	6.29	Avg Exp Ratio Morningstar (%):	0.46
Fidelity® Series Long-Term Trs Bd Idx / FTLTX	3.74		
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	0.28	12b-1 fees (%):	_
-	-	Closed - New Inv:	_
-	-	Closed - All Inv:	_
-	-	Min Investment:	\$5,000,000
-	-	Waiver Amt:	0.06
-	-	Waiver Exp Date:	6/30/2021
% in Top 10 Holdings	99.99	Strategy Inception:	8/5/2014
# of Holdings	6	Share Class Inception:	6/24/2015

Risk Bucket as of 12/31/2021

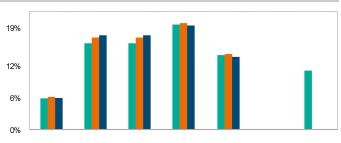
Risk Bucket	Risk Range	Risk (X
Aggressive	13.00X≤15.25	13.54
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X≤5.75	-

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 8.16

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Fidelity Freedom Index 2060 Instl Prem	5.78%	15.98%	15.98%	19.46%	13.80%		10.92%
■ StyleBenchmark *	6.05%	17.07%	17.07%	19.74%	13.99%		
■ Peer Group**	5.83%	17.47%	17.47%	19.28%	13.45%		
Peer Group Rank*	59	86	86	57	45	-	-
Peer Group Size (funds)*	-	-	208	188	139	-	-

^{* 0.00%} Merrill Lynch 3-Month T-Bill, 11.73% BB Aggregate Bond, 59.85% Russell 3000, 28.42% MSCI ACWI Index ex USA ND USD

The performance analysis displayed is reflective of past performance. Past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate over time. Current performance may differ from the performance displayed. Investing includes risk, including potential loss of principal. Carefully consider any and all investment objectives, risk factors and charges and expenses before investing. Contact your financial advisor or consultant for funds current performance and a copy of the most recent prospectus.

^{**} Morningstar Peer Group: Target-Date 2060

Fidelity Freedom Index 2065 Instl Prm Category: Aggressive

FFIKX 12/31/2021

Fund Strategy

The investment seeks high total return until its target retirement date; thereafter the fund's objective will be to seek high current income and, as a secondary objective, capital appreciation. The fund invests in a combination of Fidelity® U.S. equity funds, international equity funds, bond funds, and short-term funds (underlying Fidelity® funds), each of which (excluding any money market fund) seeks to provide investment results that correspond to the total return of a specific index.

Fund Information	Portfolio Statistics						
		Alpha*:	-	P/E:	18.43		
Strategy Asset (\$ mm):	416.00	Beta*:	-	P/B:	2.64		
Share Class Assets (\$ mm):	254.00		as of date 11/30/2021	SEC Yield (%):	-		
Share Class Assets (\$ IIIII).	254.00			Turnover:	33.00		
Manager:	Andrew Dierdorf			as	of date 12/31/2021		

*Best fit index:

Manager Tenure: 3 Years *3-year statistic:

Scorecard

Asset Allocation	Style		Risk / Return			Peer Group		Qual. (2pt			Score		
Strategies	Ticker	LISK	Style Diversity	R²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank		Allocation	Selection	Q4 2021
Aggressive													
Fidelity Freedom	FFIKX	-	-	-	-	-	-	-	-	-		8.7	-
Index 2065 Instl Prm	-	-	-	-	-	-	-	-	-	0.7	-		

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Fidelity Freedom	-	-	-	-	-	-	-	-
Index 2065 InstI Prm	-	-	-	-	-	-	-	-

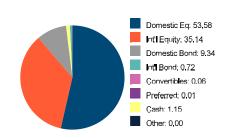
The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Fidelity® Series Total Market Index / FCFMX	54.43	Prospectus Net Exp. Ratio:	0.08
Fidelity® Series Global ex US Index / FSGEX	35.25	Prospectus Gross Exp. Ratio:	0.08
Fidelity® Series Bond Index / FIFZX	6.29	Avg Exp Ratio Morningstar (%):	0.43
Fidelity® Series Long-Term Trs Bd Idx / FTLTX	3.74		
Fidelity® Series Intl Dev Mkts Bd Idx / FSTQX	0.28	12b-1 fees (%):	-
-	-	Closed - New Inv:	-
-	-	Closed - All Inv:	-
-	-	Min Investment:	\$5,000,000
-	-	Waiver Amt:	-
-	-	Waiver Exp Date:	-
% in Top 10 Holdings	99.99	Strategy Inception:	6/28/2019
# of Holdings	7	Share Class Inception:	6/28/2019

Risk Bucket as of 12/31/2021

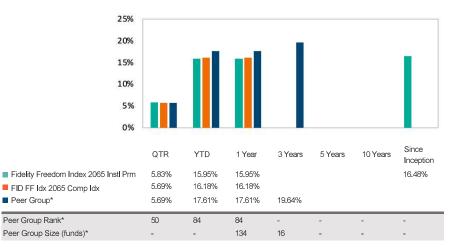
Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75X≤7.75	-
Conservative	3.00X≤5.75	-

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 8.16

Performance Analysis as of 12/31/2021

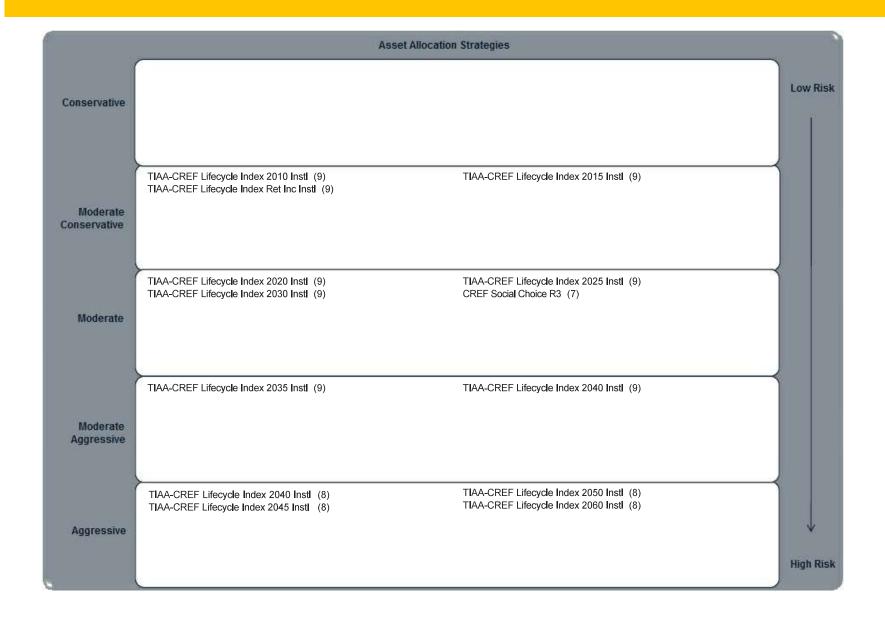


*Morningstar Peer Group: Target-Date 2065+

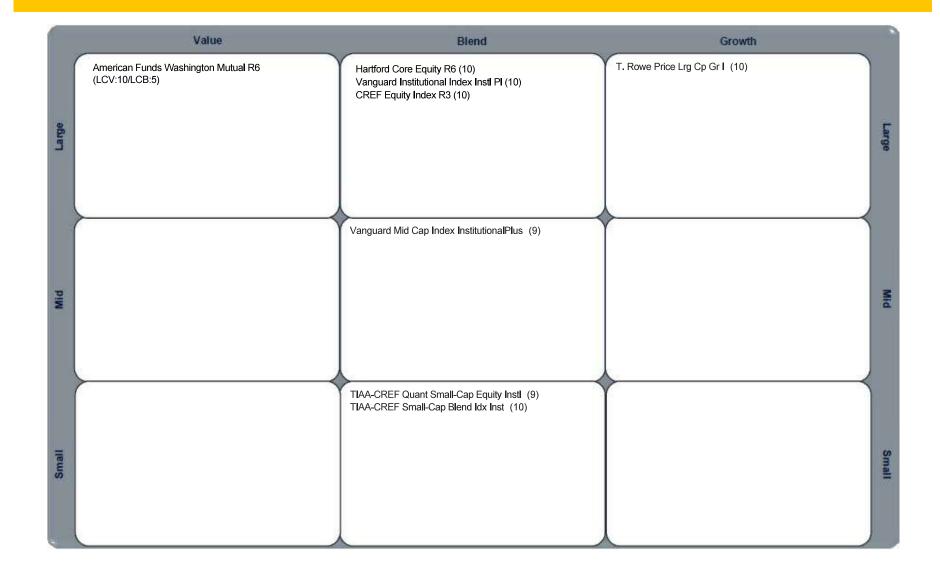
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TIAA Investment Lineup Analysis

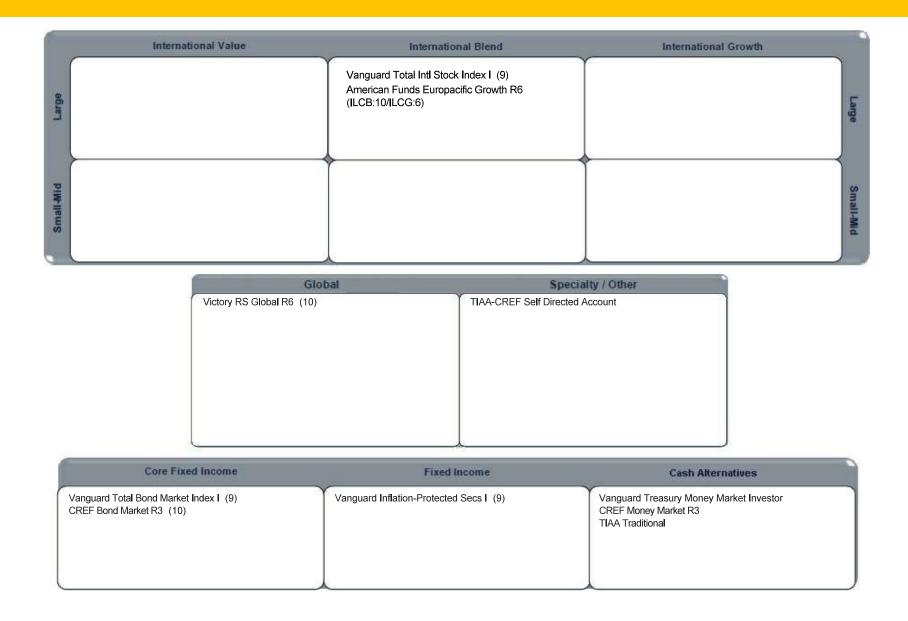
Style Box - TIAA



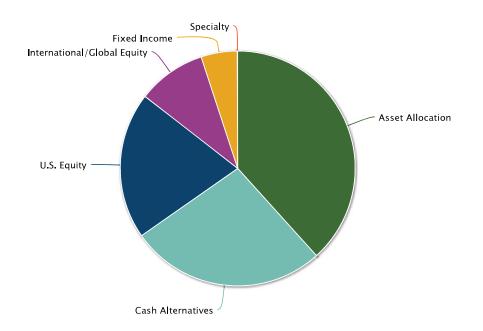
Style Box - TIAA



Style Box - TIAA



Plan Allocation by Investment Type - TIAA



Investment Type	Assets	Percentage
Asset Allocation	\$1,600,924,752.75	38.3%
Cash Alternatives	\$1,127,851,321.67	27.0%
U.S. Equity	\$844,931,051.31	20.2%
International/Global Equity	\$394,073,365.43	9.4%
Fixed Income	\$209,282,345.37	5.0%
Specialty	\$2,085,531.94	0.0%
Total	\$4,179,148,368.47	100%
as of 12/31/2021		

Plan Allocation by Investment Type - TIAA

Investment Name	Asset Class	Amount	Percentage	Score
Money Market/Stable Value		\$1,127,851,322		
Vanguard Treasury Money Market Investor	MM	\$14,998,957	0.4%	N/A*
TIAA Traditional	SV-P	\$1,072,899,613	25.7%	N/A*
CREF Money Market R3	MM	\$39,952,751	1.0%	N/A*
Fixed Income		\$209,282,345		
Vanguard Total Bond Market Index I	CFI-P	\$31,249,657	0.7%	9
CREF Bond Market R3	CFI	\$149,961,190	3.6%	10
Vanguard Inflation-Protected Secs I	UGT	\$28,071,498	0.7%	9
U.S. Equity		\$1,739,751,577		
American Funds Washington Mutual R6	LCV	\$81,429,486	1.9%	10
Hartford Core Equity R6	LCB	\$50,445,882	1.2%	10
Vanguard Institutional Index InstI PI	LCB-P	\$127,735,870	3.1%	10
CREF Equity Index R3	LCB-P	\$122,575,235	2.9%	10
CREF Stock R3	LCB	\$894,820,526	21.4%	5
T. Rowe Price Lrg Cp Gr I	LCG	\$35,135,737	0.8%	10
CREF Growth R3	LCG	\$265,224,469	6.3%	6
Vanguard Mid Cap Index InstitutionalPlus	MCB-P	\$93,622,619	2.2%	9
TIAA-CREF Small-Cap Blend Idx Inst	SCB-P	\$43,084,446	1.0%	10
TIAA-CREF Quant Small-Cap Equity InstI	SCB	\$25,677,306	0.6%	9
International/Global Equity		\$394,073,365		
Vanguard Total Intl Stock Index I	IE-P	\$46,233,985	1.1%	9
American Funds Europacific Growth R6	ILCB	\$71,515,063	1.7%	10
Victory RS Global R6	GE	\$48,710,606	1.2%	10
CREF Global Equities R3	GE	\$227,613,712	5.4%	9

^{*}Cash Equivalents (e.g., money market fund) and some specialty funds are not scored by the Scorecard System.

Plan Allocation by Investment Type - TIAA

Investment Name	Asset Class	Amount	Percentage	Score
Asset Allocation		\$706,104,227		
CREF Social Choice R3	MOD	\$140,955,382	3.4%	7
TIAA-CREF Lifecycle Index Ret Inc InstI	MC	\$2,973,758	0.1%	9
TIAA-CREF Lifecycle Index 2010 InstI	MC	\$15,397,671	0.4%	9
TIAA-CREF Lifecycle Index 2015 InstI	MC	\$18,855,078	0.5%	9
TIAA-CREF Lifecycle Index 2020 InstI	MOD	\$35,754,382	0.9%	9
TIAA-CREF Lifecycle Index 2025 InstI	MOD	\$60,080,160	1.4%	9
TIAA-CREF Lifecycle Index 2030 InstI	MOD	\$77,019,978	1.8%	9
TIAA-CREF Lifecycle Index 2035 InstI	MA	\$97,443,193	2.3%	9
TIAA-CREF Lifecycle Index 2040 InstI	MA	\$134,798,785	3.2%	9
TIAA-CREF Lifecycle Index 2045 InstI	AGG	\$64,951,276	1.6%	8
TIAA-CREF Lifecycle Index 2050 InstI	AGG	\$40,728,100	1.0%	8
TIAA-CREF Lifecycle Index 2055 InstI	AGG	\$13,880,324	0.3%	8
TIAA-CREF Lifecycle Index 2060 InstI	AGG	\$3,266,140	0.1%	8
Brokerage		\$2,085,532		
TIAA-CREF Self Directed Account	SPC	\$2,085,532	0.0%	N/A*
Total		\$4,179,148,368	100.0 %	

^{*}Cash Equivalents (e.g., money market fund) and some specialty funds are not scored by the Scorecard System.

2020 Plan Activity - TIAA

Fund	Beg	jinning Balance 1/1/2020	Contributions	Disbursements	Net Exchange		Other*	Market Action/Other Transactions**	Ending Balance 12/31/2020
American EuroPac Growth R6	\$	58,145,406.83	\$ 1,922,024.71	\$ (2,431,791.89)	\$ (1,112,916.65)	\$	(37,478.00)	\$ 14,003,131.15	\$ 70,488,376.15
American Washington Mut Inv R6	\$	69,689,605.37	\$ 2,219,685.33	\$ (2,958,500.84)	\$ (7,933,874.66)	\$	(33,223.54)	\$ 4,081,740.09	\$ 65,065,431.75
CREF Bond Market R3	\$	141,876,549.25	\$ 3,071,585.16	\$ (6,855,923.28)	\$ 10,439,656.85	\$	37,077.59	\$ 11,418,843.63	\$ 159,987,789.20
CREF Equity Index R3	\$	101,415,660.92	\$ -	\$ (3,797,305.44)	\$ (9,552,644.59)	\$	76,509.42	\$ 17,493,920.86	\$ 105,636,141.17
CREF Global Equities R3	\$	167,932,779.24	\$ 1,980,565.24	\$ (5,709,824.02)	\$ (8,828,940.69)	\$	124,611.99	\$ 35,878,679.35	\$ 191,377,871.11
CREF Growth R3	\$	192,802,141.35	\$ 2,210,767.86	\$ (7,362,888.97)	\$ (30,253,684.88)	\$	146,052.44	\$ 70,551,845.42	\$ 228,094,233,22
CREF Money Market R3	\$	50,477,232.52	\$ -	\$ (8,523,430.95)	\$ 12,896,613.62	\$	56,174.90	\$ 210,621.60	\$ 55,117,211.69
CREF Social Choice R3	\$	95,670,616.02	\$ 1,923,576.72	\$ (3,902,526.98)	\$ 12,130,394.51	\$	(167,114.01)	\$ 14,222,928.78	\$ 119,877,875.04
CREF Stock R3	\$	772,807,333.60	\$ 6,035,654.80	\$ (28,333,797.32)	\$ (60,229,780.28)	\$	566,416.07	\$ 120,683,825.43	\$ 811,529,652.30
Hartford Core Equity Fund R6	\$	-	\$ 1,791,605.90	\$ (147,467.79)	\$ 27,707,537.84	\$	(9,295.89)	\$ 3,736,461.92	\$ 33,078,841.98
T. Rowe Price Large-Cap Gr I	\$	-	\$ 687,140.46	\$ (188,365.12)	\$ 20,964,442.61	\$	(4,095.91)	\$ 2,441,003.07	\$ 23,900,125.11
TIAA Traditional	\$	1,033,442,559.43	\$ 9,808,011.14	\$ (46,968,752.97)	\$ 23,551,799.87	\$	1,160,539.15	\$ 42,122,061.82	\$ 1,063,116,218.44
TIAA-CREF Lfcyle ldx 2010-Inst	\$	-	\$ 142,040.25	\$ (55,758.42)	\$ 14,986,991.26	\$	(4,181.92)	\$ 1,271,141.26	\$ 16,340,232.43
TIAA-CREF Lfcyle ldx 2015-Inst	\$	-	\$ 199,317.79	\$ (197,854.67)	\$ 15,670,459.05	\$	(2,787.67)	\$ 1,215,601.48	\$ 16,884,735.98
TIAA-CREF Lfcyle ldx 2020-Inst	\$	-	\$ 438,846.63	\$ (256,948.28)	\$ 31,973,020.77	\$	(5,635.22)	\$ 2,730,018.96	\$ 34,879,302.86
TIAA-CREF Lfcyle ldx 2025-Inst	\$	-	\$ 930,864.87	\$ (41,238.57)	\$ 49,247,916.13	\$	(20,699.80)	\$ 4,836,979.83	\$ 54,953,822.46
TIAA-CREF Lfcyle ldx 2030-Inst	\$	-	\$ 1,005,071.91	\$ (324,018.96)	\$ 60,250,818.41	\$	(11,518.61)	\$ 6,643,941.18	\$ 67,564,293.93
TIAA-CREF Lfcyle ldx 2035-Inst	\$	-	\$ 1,281,272.02	\$ (1,101,491.58)	\$ 74,828,364.86	\$	632,909.19	\$ 9,098,517.31	\$ 84,739,571.80
TIAA-CREF Lfcyle ldx 2040-Inst	\$	-	\$ 1,627,039.21	\$ (961,046.08)	\$ 101,140,226.70	\$	(25,058.98)	\$ 13,673,839.85	\$ 115,455,000.70
TIAA-CREF Lfcyle ldx 2045-Inst	\$	-	\$ 1,238,788.68	\$ (271,015.84)	\$ 43,808,966.85	\$	(22,361.14)	\$ 6,478,800.56	\$ 51,233,179.11
TIAA-CREF Lfcyle ldx 2050-Inst	\$	-	\$ 1,062,253.98	\$ (173,658.74)	\$ 27,037,563.26	\$	(17,023.89)	\$ 4,109,257.55	\$ 32,018,392.16
TIAA-CREF Lfcyle ldx 2055-Inst	\$	-	\$ 517,130.62	\$ (117,312.00)	\$ 8,720,858.03	\$	(19,071.95)	\$ 1,341,196.62	\$ 10,442,801.32
TIAA-CREF Lfcyle ldx 2060-Inst	\$	-	\$ 117,590.18	\$ (2,255.99)	\$ 1,914,447.84	\$	(2,323.51)	\$ 274,152.85	\$ 2,301,611.37
TIAA-CREF Lfcyle ldx Rtln-Inst	\$	-	\$ 16,691.15	\$ (5,600.38)	\$ 3,096,122.64	\$	(381.61)	\$ 218,197.60	\$ 3,325,029.40
TIAA-CREF Lfcyle Rtmt Inc-Inst	\$	2,361,816.77	\$ 54,572.17	\$ (121,752.92)	\$ (2,375,102.57)) \$	(1,103.88)	\$ 81,570.43	\$ -
TIAA-CREF Lifecycle 2010-Inst	\$	14,137,866.33	\$ 441,526.46	\$ (1,954,272.72)	\$ (13,266,325.37)	\$	(12,435.43)	\$ 653,640.73	\$ -
TIAA-CREF Lifecycle 2015-Inst	\$	15,395,501.64	\$ 716,364.75	\$ (516,947.56)	\$ (16,144,553.82)) \$	(23,425.02)	\$ 573,060.01	\$ -
TIAA-CREF Lifecycle 2020-Inst	\$	31,348,757.39	\$ 1,556,278.72	\$ (1,025,359.85)	\$ (33,027,287.44)) \$	(17,271.15)	\$ 1,164,882.33	\$ -
TIAA-CREF Lifecycle 2025-Inst	\$	46,359,390.24	\$ 3,669,702.20	\$ (1,011,009.17)	\$ (50,794,473.70)	\$	151,454.16	\$ 1,624,936.27	\$ -
TIAA-CREF Lifecycle 2030-Inst	\$	57,421,376.53	\$ 3,286,604.40	\$ (980,232.95)	\$ (61,474,968.66)) \$	(51,731.72)	\$ 1,798,952.40	\$ -
TIAA-CREF Lifecycle 2035-Inst	\$	71,951,923.42	\$ 4,242,691.15	\$ (1,896,299.70)	\$ (76,401,290.06)	\$	24,895.12	\$ 2,078,080.07	\$ -
TIAA-CREF Lifecycle 2040-Inst	\$	98,390,151.18	\$ 5,387,561.18	\$ (2,411,338.27)	\$ (103,767,523.57)	\$	(117,577.79)	\$ 2,518,727.27	\$ <u> </u>

^{*}Includes Transfer Payout Annuity (TPA) Re-Investments, QDRO Splits, Minimum Distribution Transfers, GRA Withdrawal charges, Transfers from RA/GRA to TPA contracts.

^{**} Includes dividends, investment gain/loss

2020 Plan Activity – TIAA Continued...

Fund	Beg	inning Balance 1/1/2020		Contributions	Disbursements	Net Exchange	Other*	N	larket Action/Other Transactions**	Ending Balance 12/31/2020
TIAA-CREF Lifecycle 2045-Inst	\$	40,992,396.10	\$	3,980,613.56	\$ (1,193,981.34)	\$ (44,788,029.97)	\$ (56,020.40)	\$	1,065,022.05	\$ -
TIAA-CREF Lifecycle 2050-Inst	\$	24,683,720.21	\$	3,208,567.94	\$ (837,324.17)	\$ (27,682,036.40)	\$ (78,746.36)	\$	705,818.78	\$ -
TIAA-CREF Lifecycle 2055-Inst	\$	7,614,963.49	\$	1,556,334.50	\$ (285,768.06)	\$ (9,139,280.34)	\$ (26,524.39)	\$	280,274.80	\$ -
TIAA-CREF Lifecycle 2060-Inst	\$	1,228,071.87	\$	360,077.42	\$ (15,393.50)	\$ (1,624,244.85)	\$ (6,177.95)	\$	57,667.01	\$ -
TIAA-CREF Qt Sml Cap Eq Inst	\$	22,180,017.69	\$	560,969.35	\$ (996,998.52)	\$ (3,342,389.77)	\$ (13,479.51)	\$	1,637,577.87	\$ 20,025,697.11
TIAA-CREF Self Directed Acct	\$	801,780.55	\$	22,709.62	\$ -	\$ 574,469.32	\$ -	\$	190,825.84	\$ 1,589,785.33
TIAA-CREF Sm-Cap Bl Idx-Inst	\$	31,548,582.09	\$	1,249,446.43	\$ (1,467,078.35)	\$ (111,095.36)	\$ (20,583.37)	\$	6,510,415.17	\$ 37,709,686.61
Vanguard Infl Protect Sec Inst	\$	20,251,822.29	\$	604,705.84	\$ (883,459.75)	\$ 1,704,124.71	\$ (49,853.53)	\$	2,269,337.67	\$ 23,896,677.23
Vanguard Inst ldx Inst	\$	94,050,721.27	\$	3,776,515.27	\$ (3,304,004.55)	\$ (97,838,698.83)	\$ (103,928.93)	\$	3,419,395.77	\$ -
Vanguard Inst Idx Inst Plus	\$	-	\$	1,165,451.11	\$ (523,795.90)	\$ 93,257,424.32	\$ (35,483.76)	\$	13,052,466.06	\$ 106,916,061.83
Vanguard MCap ldx Instit Plus	\$	71,274,395.14	\$	1,981,776.68	\$ (2,901,374.02)	\$ (6,271,585.72)	\$ (51,530.78)	\$	10,976,952.54	\$ 75,008,633.84
Vanguard Treasury MoneyMkt Inv	\$	14,142,271.73	\$	1,308,383.49	\$ (2,078,834.87)	\$ 7,268,173.19	\$ (222,786.50)	\$	75,767.76	\$ 20,492,974.80
Vanguard Ttl Bd Mkt ldx Inst	\$	23,822,139.75	\$	831,590.87	\$ (1,272,334.67)	\$ 3,411,249.65	\$ (371,809.17)	\$	1,866,622.51	\$ 28,287,458.94
Vanguard Ttl Intl Stk ldx Inst	\$	44,506,636.63	\$	1,832,655.67	\$ (1,780,935.21)	\$ (2,977,977.54)	\$ (31,510.95)	\$	4,330,161.80	\$ 45,879,030.40
Victory RS Global Fund CI R6	\$	<u>-</u>	\$	626,338.12	\$ (54,498.02)	\$ 22,349,964.98	\$ (3,510.41)	\$	2,946,765.59	\$ 25,865,060.26
Total	\$3,41	18,724,186.84	\$8	32,648,961.51	\$ (148,201,769.15)	\$ (7,098.45)	\$ 31,298,897.38	\$	448,615,628.90	\$ 3,803,078,807.03

^{*}Includes Transfer Payout Annuity (TPA) Re-Investments, QDRO Splits, Minimum Distribution Transfers, GRA Withdrawal charges, Transfers from RA/GRA to TPA contracts.

^{**} Includes dividends, investment gain/loss

2021 Plan Activity - TIAA

Fund	Beginning Balance 01/01/2021	Contributions		Disbursements		Net Exchange		Other*	Market Action/Other Transactions**	Ending Balance 12/31/2021
American EuroPac Growth R6	\$ 70,488,376.15	\$ 1,984,487.	66	\$ (2,553,215.23)	\$	(365,069.07)	\$	(54,074.31)	\$ 2,014,557.38	\$ 71,515,062.58
American Washington Mut Inv R6	\$ 65,065,431.75	\$ 2,095,197	03	\$ (3,433,439.17)	\$	(704,907.62)	\$	(15,192.84)	\$ 18,422,396.36	\$ 81,429,485.51
CREF Bond Market R3	\$ 159,987,789.20	\$ 2,728,708.	01	\$ (9,498,737.97)	\$	(1,360,539.96)	\$	73,314.12	\$ (1,969,343.37)	\$ 149,961,190.03
CREF Equity Index R3	\$ 105,636,141.17	\$ -		\$ (3,948,331.99)	\$	(4,842,733.25)	\$	(77,704.14)	\$ 25,807,863.60	\$ 122,575,235.39
CREF Global Equities R3	\$ 191,377,871.11	\$ -		\$ (8,556,914.97)	\$	14,232,936.82	\$	130,525.45	\$ 30,429,293.80	\$ 227,613,712.21
CREF Growth R3	\$ 228,094,233.22	\$ 1,786.	50	\$ (7,935,522.53)	\$	(1,273,231.51)	\$	201,512.38	\$ 46,135,691.35	\$ 265,224,469.41
CREF Money Market R3	\$ 55,117,211.69	\$ -		\$ (5,823,971.30)	\$	(9,390,231.26)	\$	47,858.56	\$ 1,883.66	\$ 39,952,751.35
CREF Social Choice R3	\$ 119,877,875.04	\$ 1,932,786.	86	\$ (4,504,674.56)	\$	8,108,562.57	\$	58,603.65	\$ 15,482,228.20	\$ 140,955,381.76
CREF Stock R3	\$ 811,529,652.30	\$ 1,786.	30	\$ (47,451,523.54)	\$	(18,755,590.46)	\$	656,510.74	\$ 148,839,690.93	\$ 894,820,526.27
Hartford Core Equity Fund R6	\$ 33,078,841.98	\$ 7,347,556.	09	\$ (705,729.69)	\$	1,463,667.31	\$	(37,098.45)	\$ 9,298,644.91	\$ 50,445,882.15
T. Rowe Price Large-Cap Gr I	\$ 23,900,125.11	\$ 2,983,010.	12	\$ (440,685.63)	\$	2,692,223.19	\$	(12,896.89)	\$ 6,013,961.57	\$ 35,135,737.47
TIAA Traditional	\$ 1,063,116,218.44	\$ 8,840,281.	16	\$ (53,859,126.67)	\$	15,722,555.12	\$	1,306,603.05	\$ 37,773,081.80	\$ 1,072,899,612.90
TIAA-CREF Lfcyle ldx 2010-Inst	\$ 16,340,232.43	\$ 689,839.	51	\$ (757,857.29)	\$	(1,968,956.83)	\$	(19,812.78)	\$ 1,114,225.48	\$ 15,397,670.52
TIAA-CREF Lfcyle ldx 2015-Inst	\$ 16,884,735.98	\$ 786,026.	96	\$ (714,246.53)	\$	644,120.33	\$	(10,704.03)	\$ 1,265,144.85	\$ 18,855,077.56
TIAA-CREF Lfcyle ldx 2020-Inst	\$ 34,879,302.86	\$ 1,889,554.	36	\$ (2,143,036.68)	\$	(1,837,137.53)	\$	(22,088.53)	\$ 2,987,787.37	\$ 35,754,381.85
TIAA-CREF Lfcyle ldx 2025-Inst	\$ 54,953,822.46	\$ 4,433,088.	32	\$ (2,756,962.05)	\$	(2,075,447.03)	\$	(47,753.87)	\$ 5,573,411.97	\$ 60,080,159.80
TIAA-CREF Lfcyle ldx 2030-Inst	\$ 67,564,293.93	\$ 4,411,744.	98	\$ (1,346,917.15)	\$	(1,589,512.78)	\$	(57,129.42)	\$ 8,037,498.71	\$ 77,019,978.27
TIAA-CREF Lfcyle ldx 2035-Inst	\$ 84,739,571.80	\$ 5,362,149.	22	\$ (1,324,857.21)	\$	(2,509,452.48)	\$	(76,667.28)	\$ 11,252,448.86	\$ 97,443,192.91
TIAA-CREF Lfcyle ldx 2040-Inst	\$ 115,455,000.70	\$ 8,262,010.	66	\$ (3,298,243.53)	\$	(2,845,941.26)	\$	(119,638.09)	\$ 17,345,597.01	\$ 134,798,785.49
TIAA-CREF Lfcyle ldx 2045-Inst	\$ 51,233,179.11	\$ 5,518,016.	47	\$ (1,117,601.43)	\$	603,923.73	\$	(186,396.72)	\$ 8,900,154.97	\$ 64,951,276.13
TIAA-CREF Lfcyle ldx 2050-Inst	\$ 32,018,392.16	\$ 4,325,176.	43	\$ (852,607.87)	\$	(405,697.92)	\$	(80,711.00)	\$ 5,723,548.21	\$ 40,728,100.01
TIAA-CREF Lfcyle ldx 2055-Inst	\$ 10,442,801.32	\$ 2,263,437	87	\$ (683,352.53)	\$	(22,076.63)	\$	(39,807.93)	\$ 1,919,322.19	\$ 13,880,324.29
TIAA-CREF Lfcyle ldx 2060-Inst	\$ 2,301,611.37	\$ 572,615.	71	\$ (120,566.78)	\$	79,184.69	\$	(11,066.89)	\$ 444,361.60	\$ 3,266,139.70
TIAA-CREF Lfcyle ldx Rtln-Inst	\$ 3,325,029.40	\$ 61,456.	54	\$ (205,794.11)	\$	(424,791.81)	\$	(1,373.60)	\$ 219,231.77	\$ 2,973,758.19
TIAA-CREF Qt Sml Cap Eq Inst	\$ 20,025,697.11	\$ 545,496.	48	\$ (963,833.17)	\$	1,080,985.15	\$	(26,606.62)	\$ 5,015,567.09	\$ 25,677,306.04
TIAA-CREF Self Directed Acct	\$ 1,589,785.33	\$ 37,443.	68	\$ -	\$	208,655.99	\$	-	\$ 249,646.94	\$ 2,085,531.94
TIAA-CREF Sm-Cap BI ldx-Inst	\$ 37,709,686.61	\$ 1,313,734.	93	\$ (2,327,160.83)	\$	639,704.38	\$	(29,117.15)	\$ 5,777,598.02	\$ 43,084,445.96
Vanguard Infl Protect Sec Inst	\$ 23,896,677.23	\$ 649,951.	66	\$ (1,174,436.21)	\$	3,448,119.09	\$	(229,110.58)	\$ 1,480,297.15	\$ 28,071,498.34
Vanguard Inst Idx Inst Plus	\$ 106,916,061.83	\$ 4,741,849.	65	\$ (4,547,221.27)	\$	(8,773,494.30)	\$	(129,807.69)	\$ 29,528,481.97	\$ 127,735,870.19
Vanguard MCap ldx Instit Plus	\$ 75,008,633.84	\$ 2,026,322.	27	\$ (2,763,485.83)	\$	967,902.86	\$	(53,011.84)	\$ 18,436,257.89	\$ 93,622,619.19
Vanguard Treasury MoneyMkt Inv	\$ 20,492,974.80	\$ 1,175,286.	85	\$ (2,374,231.19)	\$	6 (4,340,232.58)	\$	42,856.89	\$ 2,302.65	\$ 14,998,957.42
Vanguard Ttl Bd Mkt ldx Inst	\$ 28,287,458.94	\$ 990,977.	41	\$ (1,220,090.48)	\$	3,682,912.49	\$	(8,151.12)	\$ (483,450.24)	\$ 31,249,657.00
Vanguard Ttl Intl Stk ldx Inst	\$ 45,879,030.40	\$ 1,754,979.	51	\$ (2,008,492.52)	\$	(3,318,770.64)	\$	(34,356.97)	\$ 3,961,595.03	\$ 46,233,984.81
Victory RS Global Fund CI R6	\$ 25,865,060.26	\$ 3,047,836.	65	\$ (1,009,681.66)	\$	13,228,355.33	\$	18,928.64	\$ 7,560,106.61	\$ 48,710,605.83
Total	\$ 3,803,078,807.03	\$ 82,774,595.8	5	\$ (182,422,549.57)	:	\$ (5.87)	1	1,156,434.74	\$ 474,561,086.29	\$ 4,179,148,368.47

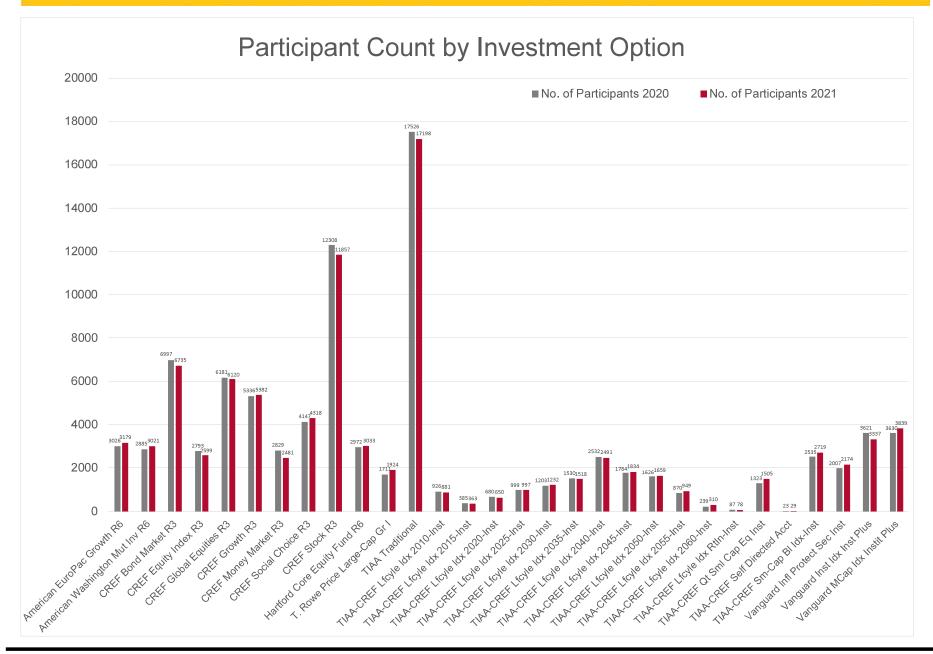
^{*}Includes Transfer Payout Annuity (TPA) Re-Investments, QDRO Splits, Minimum Distribution Transfers, GRA Withdrawal charges, Transfers from RA/GRA to TPA contracts.

^{**} Includes dividends, investment gain/loss

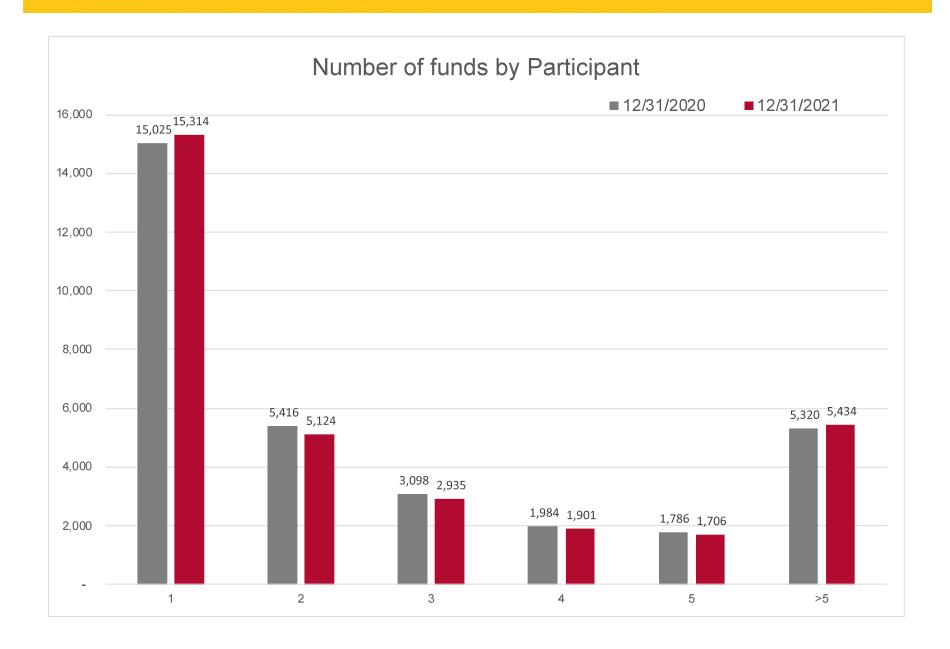
Participant Count by Investment Option - TIAA

TIAA Lineup	No. of Participants 2020	No. of One-Funders 2020	No. of Participants 2021	No. of One-Funders 2021
American EuroPac Growth R6	3026	10	3179	11
American Washington Mut Inv R6	2885	15	3021	13
CREF Bond Market R3	6997	73	6735	61
CREF Equity Index R3	2793	81	2599	76
CREF Global Equities R3	6181	64	6120	66
CREF Growth R3	5336	153	5382	155
CREF Money Market R3	2829	224	2481	220
CREF Social Choice R3	4147	182	4318	177
CREF Stock R3	12308	506	11857	496
Hartford Core Equity Fund R6	2972	8	3033	10
T. Rowe Price Large-Cap Gr I	1711	15	1924	33
TIAA Traditional	17526	4571	17198	4667
TIAA-CREF Lfcyle Idx 2010-Inst	926	202	881	196
TIAA-CREF Lfcyle Idx 2015-Inst	385	193	363	183
TIAA-CREF Lfcyle Idx 2020-Inst	680	359	650	349
TIAA-CREF Lfcyle Idx 2025-Inst	999	605	997	610
TIAA-CREF Lfcyle Idx 2030-Inst	1203	756	1232	795
TIAA-CREF Lfcyle Idx 2035-Inst	1530	1043	1518	1034
TIAA-CREF Lfcyle Idx 2040-Inst	2532	1859	2491	1832
TIAA-CREF Lfcyle Idx 2045-Inst	1784	1486	1834	1535
TIAA-CREF Lfcyle Idx 2050-Inst	1626	1433	1659	1473
TIAA-CREF Lfcyle Idx 2055-Inst	870	777	949	849
TIAA-CREF Lfcyle Idx 2060-Inst	239	191	310	257
TIAA-CREF Lfcyle Idx RtIn-Inst	87	5	78	3
TIAA-CREF Qt Sml Cap Eq Inst	1323	3	1505	4
TIAA-CREF Self Directed Acct	23	1	29	1
TIAA-CREF Sm-Cap Bl Idx-Inst	2535	4	2719	5
Vanguard Infl Protect Sec Inst	2007	9	2174	11
Vanguard Inst Idx Inst Plus	3621	101	3337	114
Vanguard MCap Idx Instit Plus	3630	34	3839	35
Vanguard Treasury MoneyMkt Inv	765	46	677	32
Vanguard Ttl Bd Mkt Idx Inst	1417	10	1622	6
Vanguard Ttl Intl Stk Idx Inst	2483	5	2623	4
Victory RS Global Fund Cl R6	2221	1	2557	1

Participant Count by Investment Option - TIAA



Participant Investment Behavior - TIAA



Average Participant Account Balance - TIAA

ORP - TIAA	as of 12/31/2020	as of 12/31/2021				
Total Participant	32,622	32,415				
Total Assets	\$3,803,078,807	\$4,179,148,368				
Average Balance	\$116,580	\$128,926				

Cost Analysis - TIAA

		TIAA Lineu	р			
Fund Name	Net expense Ratio (%)	Expense Ratio Percentile Rank	No. of funds in peer group	Revenue Sharing (%)	Total Cost (Net exp - Rev share) (%)	Average expense ratio (%)
Vanguard Treasury Money Market Investor	0.09%	1	1216	0.00%	0.09%	0.11%
TIAA Traditional	N/A	N/A	N/A	0.00%	N/A	N/A
Vanguard Total Bond Market Index I	0.04%	6	420	0.00%	0.04%	0.47%
CREF Bond Market R3	0.21%	3	221	0.10%	0.11%	0.65%
Vanguard Inflation-Protected Secs I	0.07%	13	104	0.00%	0.07%	0.35%
CREF Social Choice R3	0.20%	4	605	0.10%	0.10%	0.80%
American Funds Washington Mutual R6	0.27%	17	1280	0.00%	0.27%	0.63%
Hartford Core Equity R6	0.38%	23	1280	0.00%	0.38%	0.63%
Vanguard Institutional Index InstI PI	0.02%	2	1280	0.00%	0.02%	0.70%
T. Rowe Price Lrg Cp Gr I	0.56%	16	979	0.00%	0.56%	0.70%
Vanguard Mid Cap Index InstitutionalPlus	0.03%	1	346	0.00%	0.03%	0.85%
TIAA-CREF Small-Cap Blend ldx Inst	0.06%	4	473	0.00%	0.06%	0.95%
TIAA-CREF Quant Small-Cap Equity Instl	0.43%	19	473	0.00%	0.43%	0.95%
Vanguard Total Intl Stock Index I	0.08%	6	531	0.00%	0.08%	0.85%
American Funds Europacific Growth R6	0.46%	10	218	0.00%	0.46%	0.77%
Victory RS Global R6	0.57%	26	149	0.00%	0.57%	0.75%
TIAA-CREF Lifecycle Index Ret Inc InstI	0.10%	1	309	0.00%	0.10%	0.69%
TIAA-CREF Lifecycle Index 2010 InstI	0.10%	5	84	0.00%	0.10%	0.34%
TIAA-CREF Lifecycle Index 2015 InstI	0.10%	5	82	0.00%	0.10%	0.38%
TIAA-CREF Lifecycle Index 2020 InstI	0.10%	5	100	0.00%	0.10%	0.42%
TIAA-CREF Lifecycle Index 2025 Instl	0.10%	6	90	0.00%	0.10%	0.44%
TIAA-CREF Lifecycle Index 2030 Instl	0.10%	6	95	0.00%	0.10%	0.45%
TIAA-CREF Lifecycle Index 2035 Instl	0.10%	6	86	0.00%	0.10%	0.45%
TIAA-CREF Lifecycle Index 2040 Instl	0.10%	6	96	0.00%	0.10%	0.44%
TIAA-CREF Lifecycle Index 2045 InstI	0.10%	7	81	0.00%	0.10%	0.45%
TIAA-CREF Lifecycle Index 2050 InstI	0.10%	7	83	0.00%	0.10%	0.45%

Cost Analysis - TIAA

		TIAA Lineu	р			
Fund Name	Net expense Ratio (%)	Expense Ratio Percentile Rank	No. of funds in peer group	Ravanua	Total Cost (Net exp - Rev share) (%)	Average expense ratio (%)
TIAA-CREF Lifecycle Index 2055 InstI	0.10%	7	80	0.00%	0.10%	0.45%
TIAA-CREF Lifecycle Index 2060 Instl	0.10%	8	67	0.00%	0.10%	0.46%

Data source for Number of funds in peer group is as per Morningstar Category

TIAA Investment Lineup - Scorecard™

Scorecard™ - TIAA

Total Plan Assets: \$4,179,148,368.47 as of 12/31/2021

Target Date Series

Asset Allocation	Assets	Asset	Risk	Allocatio (Series	on Score Funds)	Selectio (Underlyii			Blende	d Score	
7.555t755da.5.1	7.000.0	Class	Index	# of Funds	Avg Score	# of Funds	Avg Score	Q4 2021	Q3 2021	Q2 2021	Q1 2021
TIAA-CREF Lifecycle Index Target Date Series Inst	\$565,148,844.72	AGG	76	13	8.3	6	9.5	9	9	9	9

Allocation (Series Funds)

		Asset	Ticker/		Style			Risk/Returi	ı	Peer	Group	Qual	Score Co	mponents	Score
Asset Allocation	Assets	Class	ID	Risk Level	Style Diversity	R ²	Risk/ Return	Up/ Down	I nfo Ratio	Return Rank	SR Rank	2pt Max	Allocation	Selection	Q4 2021
TIAA-CREF Lifecycle				1	1	1	1	1	0	1	1	2			9
Index Ret Inc Instl	\$2,973,758.19	MC	TRILX	6.4	39.9/ 60.1	99.7	6.4/ 8.3	99.2/ 98.6	-0.09	7.0	4.0		9	9.5	МС
TIAA-CREF Lifecycle				1	1	1	1	1	0	1	1	2			9
Index 2010 Instl	\$15,397,670.52	MC	TLTIX	6.5	42.4/ 57.6	99.8	6.5/ 8.4	97.5/ 95.9	-0.28	8.0	4.0		9	9.5	мс
TIAA-CREF Lifecycle				1	1	1	1	1	0	1	1	2			9
Index 2015 Instl	\$18,855,077.56	MC	TLFIX	7.1	47.5/ 52.5	99.9	7.1/ 9.0	97.2/ 95.8	-0.35	4.0	7.0		9	9.5	МС
TIAA OBEELIK I				1	1	1	1	1	0	1	1	2			9
TIAA-CREF Lifecycle Index 2020 Instl	\$35,754,381.85	MOD	TLWIX	7.9	53.7/ 46.3	99.8	7.9/ 9.7	96.5/ 94.6	-0.31	30.0	9.0		9	9.5	MOD
TIAA-CREF Lifecycle				1	1	1	1	1	0	1	1	2			9
Index 2025 Instl	\$60,080,159.80	MOD	TLQIX	9.1	61.4/ 38.6	99.8	9.1/ 10.6	96.7/ 95.4	-0.35	16.0	13.0		9	9.5	MOD

continued

Allocation (Series Funds)

		Asset	Ticker/		Style			Risk/Returi	n	Peer	Group	Qual	Score Co	mponents	Score
Asset Allocation	Assets	Class	I D	Risk Level	Style Diversity	R ²	Risk/ Return	Up/ Down	I nfo Ratio	Return Rank	SR Rank	2pt Max	Allocation	Selection	Q4 2021
TIAA-CREF Lifecycle				1	1	1	1	1	0	1	1	2			9
Index 2030 Instl	\$77,019,978.27	MOD	TLHIX	10.2	69.3/ 30.7	99.8	10.2/ 11.6	97.0/ 95.9	-0.33	10.0	18.0		9	9.5	MOD
TIAA-CREF Lifecycle				1	1	1	1	1	0	1	1	2			9
Index 2035 Instl	\$97,443,192.91	MA	TLYIX	11.4	77.1/ 22.9	99.8	11.4/ 12.5	97.1/ 96.5	-0.39	18.0	10.0		9	9.5	MA
TIAA-CREF Lifecycle				1	1	1	1	1	0	1	1	2			9
Index 2040 Instl	\$134,798,785.49	MA	TLZIX	12.6	84.4/ 15.6	99.9	12.6/ 13.4	97.9/ 97.8	-0.37	12.0	16.0		9	9.5	MA
				1	T 1	1	0	0	0	1	1	2			8
TIAA-CREF Lifecycle Index 2045 Instl	\$64,951,276.13	AGG	TLXIX	13.7	89.1/ 10.9	99.9	13.7/ 14.1	99.7/ 100.6	-0.37	9.0	11.0	_	7	9.5	AGG
TIAA-CREF Lifecycle				1	1	1	0	0	0	1	1	2			8
Index 2050 Instl	\$40,728,100.01	AGG	TLLIX	13.9	90.0/ 10.0	99.9	13.9/ 14.4	100.3/ 101.1	-0.18	9.0	11.0		7	9.5	AGG
TIAA-CREF Lifecycle				1	1	1	0	0	0	1	1	2			8
Index 2055 Instl	\$13,880,324.29	AGG	TTIIX	14.1	90.8/ 9.2	99.9	14.1/ 14.5	100.8/ 101.9	-0.15	9.0	12.0		7	9.5	AGG
TIAA-CREF Lifecycle				1	1	1	0	0	0	1	1	2	_		8
Index 2060 Instl	\$3,266,139.70	AGG	TVIIX	14.2	92.2/ 7.8	99.9	14.2/ 14.6	100.8/ 101.4	-0.01	7.0	13.0		7	9.5	AGG

continued

TIAA-CREF Short-Term

Bond Index W

Selection (Underlying Funds)

				Style			Risk/Returi	า	Peer (Group	Qual		Sc	ore	
Active	Asset Class	Ticker/ ID	Style	Style Drift	R ²	Risk/ Return	Up/ Down	Info Ratio	Return Rank	Info Ratio Rank	2pt Max	Q4 2021	Q3 2021	Q2 2021	Q1 2021
TIAA-CREF Inflation Link			1	1	1	1	1	0	0	1	2	8	8	9	9
Bd W	UGT	TIIWX	-58.0/ 56.8	4.1	91.3	2.6/ 4.4	75.3/ 65.2	-0.74	57.0	41.0		UGT	UGT	UGT	UGT
		Ticker/		St	tyle			Peer	Group		Qual		Sc	ore	
Passive	Asset Class	ID	Style	Style Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Rank	2pt Max	Q4 2021	Q3 2021	Q2 2021	Q1 2021
			1	1	1	1	1	1	1	1	2	10	10	10	10
TIAA-CREF Equity Index W	LCB-P	TEQWX	4.2/ 86.2	1.3	99.9	0.7	7.0	0.0	34.0	67.0		LCB-P	LCB-P	LCB-P	LCB-P
TIAA-CREF International			1	1	1	1	1	1	1	1	2	10	10	10	10
Eq Idx W	ILCB-P	TCIWX	-8.7/ 46.0	22.4	99.0	1.7	68.0	0.0	22.0	21.0		ILCB-P	ILCB-P	ILCB-P	ILCB-P
TIAA ODEE Engania			1	1	1	1	1	1	1	1	2	10	10	10	10
TIAA-CREF Emerging Markets Eq Idx W	EME-P	TENWX	5.4/ -94.2	5.9	98.8	2.0	57.0	0.0	29.0	30.0		EME-P	EME-P	EME-P	EME-P
			1	0	1	1	1	1	1	1	2	9	9	10	9
TIAA-CREF Bond Index W	CFI-P	TBIWX	13.2/ 48.8	11.4	99.5	0.3	31.0	0.0	27.0	14.0		CFI-P	CFI-P	CFI-P	CFI-P
	1	<u> </u>	1 1	1	1 1	1	1	1	1	1	2	10	10	10	9

96.5

7.0

0.0

STB-P

STB-P

STB-P

STB-P

TTBWX

-99.3/

52.4

STB-P

Core Lineup

			Ticker/		Style			Risk/Returr	ı	Peer	Group	Qual		Sc	ore	
Asset Allocation	Assets	Asset Class	ID	Risk Level	Style Diversity	R ²	Risk/ Return	Up/ Down	I nfo Ratio	Return Rank	SR Rank	2pt Max	Q4 2021	Q3 2021	Q2 2021	Q1 2021
				1	1	1	0	0	0	1	1	2	7	7	7	7
CREF Social Choice R3	\$140,955,381.76	MOD	F00000VAW7	9.6	60.6/ 39.4	98.8	9.6/ 11.1	99.8/ 100.4	-0.06	11.0	14.0		MOD	MOD	MOD	MOD
				0	0	1	0	0	0	1	1	2	5	5	5	5
CREF Stock R3 ^a	\$894,820,526.27	AGG	F00000VAVP	15.7	100.0/ 0.0	99.7	15.7/ 14.8	99.6/ 103.7	-0.85	16.0	42.0		AGG	AGG	AGG	AGG

					Style			Risk/Returr		Peer	Group	Qual		Sc	ore	
Active	Assets	Asset Class	Ticker/ ID	Style	Style Drift	R ²	Risk/ Return	Up/ Down	Info Ratio	Return Rank	I nfo Ratio Rank	2pt Max	Q4 2021	Q3 2021	Q2 2021	Q1 2021
				1	1	1	1	1	1	1	1	2	10	9	9	9
Hartford Core Equity R6	\$50,445,882.15	LCB	HAITX	-3.1/ 93.2	5.2	98.5	14.8/ 18.9	96.8/ 91.2	0.24	4.0	2.0		LCB	LCB	LCB	LCB
American Funds		4		0	1	1	1	0	0	0	0	2	5	5	7	7
Washington Mutual R6	\$81,429,485.51	LCB [*]	RWMGX	-51.9/ 88.3	5.1	93.8	14.4/ 15.5	85.5/ 90.3	-0.72	68.0	56.0		LCB	LCB	LCB	LCB
				1	1	1	1	1	1	1	1	2	10	10	10	10
T. Rowe Price Lrg Cp Gr I	\$35,135,737.47	LCG	TRLGX	92.5/ 69.5	8.8	94.0	16.4/ 26.0	96.0/ 87.4	0.17	21.0	21.0		LCG	LCG	LCG	LCG
h				1	1	1	0	0	0	1	0	2	6	6	6	7
CREF Growth R3 b	\$265,224,469.41	LCG	F00000VAVV	98.6/ 86.8	5.3	98.6	16.8/ 23.5	95.1/ 100.0	-0.91	40.0	56.0		LCG	LCG	LCG	LCG
		1		1	1	1	1	1	1	1	0	2	9	7	7	7
TIAA-CREF Quant Small- Cap Equity Instl	\$25,677,306.04	SCB	TISEX	-19.4/ -90.6	8.2	98.1	21.2/ 12.1	99.9/ 99.6	0.02	39.0	51.0		SCB	SCB	SCB	SCB

a. For CREF Stock R3, assets in the legacy Retirement Annuity contracts are not eligible for mapping. As of 12/31/2021, there are \$894,820,526.08 asset invested in CREF Stock R3 in the legacy Retirement Annuity contracts.

b. For CREF Growth R3, assets in the legacy Retirement Annuity contracts are not eligible for mapping. As of 12/31/2021, there are \$265,224,469.53 asset invested in CREF Growth R3 in the legacy Retirement Annuity contracts.

^{*} Report system default for factsheets use Morningstar categories, which may differ from category and benchmark identified in prospectus.

continued

					Style			Risk/Returr	1	Peer (Group	Qual		Sc	ore	
Active	Assets	Asset Class	Ticker/ ID	Style	Style Drift	R ²	Risk/ Return	Up/ Down	I nfo Ratio	Return Rank	Info Ratio Rank	2pt Max	Q4 2021	Q3 2021	Q2 2021	Q1 2021
American Funds	474 545 000 50	ILCG**	DEDOV	0	1	1	0	0	0	1	1	2	6	9	10	10
Europacific Growth R6	\$71,515,062.58	ILUG	RERGX	45.5/ -3.5	10.5	86.9	15.7/ 12.9	108.2/ 124.5	-0.24	32.0	31.0		ILCG	ILCG	ILCG	ILCG
	I			1	1	1	1	1	1	1	1	2	10	10	10	10
Victory RS Global R6	\$48,710,605.83	GE	RGGRX	5.1/ 78.5	11.0	98.0	14.0/ 17.4	104.9/ 90.0	1.35	24.0	10.0		GE	GE	GE	GE
С				1	1	1	1	0	1	1	1	2	9	10	10	8
CREF Global Equities R3	\$227,613,712.21	GE	F00000VAVS	25.3/ 39.9	16.3	99.0	15.8/ 14.8	104.9/ 105.7	0.21	45.0	36.0		GE	GE	GE	GE
				1	1	1	1	1	1	1	1	2	10	10	10	10
CREF Bond Market R3	\$149,961,190.03	CFI	F00000VAW1	-30.5/ 49.4	11.5	83.3	3.4/ 3.9	105.9/ 103.0	0.2	38.0	33.0		CFI	CFI	CFI	CFI
Venezuend Indiation				1	1	1	1	1	0	1	1	2	9	8	8	8
Vanguard Inflation- Protected Secs I	\$28,071,498.34	UGT	VIPIX	-90.5/ 93.1	3.2	98.4	3.4/ 5.2	96.5/ 94.4	-0.26	13.0	17.0		UGT	UGT	UGT	UGT
				1			<u> </u>						_	_	-	_
Vanguard Treasury Money Market Investor *	\$14,998,957.42	ММ	VUSXX										-	-	-	-
*													-	-	-	-
CREF Money Market R3	\$39,952,751.35	ММ	F00000VAWA										-	-	-	-
TIAA-CREF Self Directed		0.00											-	-	-	-
Account *	\$2,085,531.94	SPC											-	-	-	-

^{*} Cash Equivalents (e.g., money market fund) and some specialty funds are not scored by the Scorecard System.

^{**} Report system default for factsheets use Morningstar categories, which may differ from category and benchmark identified in prospectus.

c. For CREF Global Equity R3, assets in the legacy Retirement Annuity contracts are not eligible for mapping. As of 12/31/2021, there are \$227,613,711.71 asset invested in CREF Global Equity R3 in the legacy Retirement Annuity contracts.

			Ticker/		S	tyle			Peer	Group		Qual		Sc	ore	
Passive	Assets	Asset Class	I D	Style	Style Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Rank	2pt Max	Q4 2021	Q3 2021	Q2 2021	Q1 2021
Vanguard Institutional				1	1	1	1	1	1	1	1	2	10	10	10	10
Index Inst Pl	\$127,735,870.19	LCB-P	VIIIX	5.1/ 96.8	2.2	99.7	1.1	42.0	6.0	16.0	14.0		LCB- P	LCB- P	LCB- P	LCB- P
				1	1	1	1	1	1	1	1	2	10	10	10	10
CREF Equity Index R3	\$122,575,235.39	LCB-P	F00000VAVY	3.8/ 86.5	1.3	99.9	0.7	6.0	26.0	45.0	71.0		LCB- P	LCB- P	LCB- P	LCB- P
				1	0	1	1	1	1	1	1	2	9	10	9	9
Vanguard Mid Cap Index InstitutionalPlus	\$93,622,619.19	МСВ-Р	VMCPX	-13.1/ 8.0	7.2	99.6	1.4	18.0	3.0	1.0	1.0		MCB-	MCB- P	MCB- P	MCB- P
				1 1	1	1	1	1	1 1	1	1	2	10	10	10	10
TIAA-CREF Small-Cap Blend Idx Inst	\$43,084,445.96	SCB-P	TISBX	3.0/ -99.2	1.5	100.0	0.1	19.0	12.0	15.0	15.0	_	SCB-	SCB-	SCB-	SCB-
Vanguard Total Intl Stock				1	1	1	1	0	1	1	1	2	9	9	9	9
Index I	\$46,233,984.81	IE-P	VTSNX	-5.9/ 37.5	6.4	98.9	1.9	93.0	23.0	6.0	17.0		IE-P	IE-P	IE-P	IE-P
Vanguard Total Bond				1	0	1	1	1	1	1	1	2	9	9	9	10
Market Index I	\$31,249,657.00	CFI-P	VBTIX	10.1/ 60.9	14.6	99.3	0.3	63.0	12.0	12.0	18.0		CFI-P	CFI-P	CFI-P	CFI-P
*		017.0											-	-	-	-
TIAA Traditional ^	\$1,072,899,612.90	SV-P											-	-	-	-

^{*}Cash Equivalents (e.g., money market fund) and some specialty funds are not scored by the Scorecard System.

TIAA Investment Lineup - Fund Fact Sheet

Vanguard Treasury Money Market Investor Category: Money Market

VUSXX 12/31/2021

Fund Strategy

The investment seeks to provide current income while maintaining liquidity and a stable share price of \$1. The fund invests solely in high-quality, short-term money market instruments whose interest and principal payments are backed by the full faith and credit of the U.S. government. At least 80% of the fund's assets will be invested in U.S. Treasury securities and in repurchase agreements fully collateralized by U.S. Treasury securities; the remainder of the assets will also be invested in U.S. Treasury securities and in repurchase agreements fully collateralized by U.S. Treasury securities.

agreemente rany conditionalized by Cici mos	oury coournico.				
Fund Information		Portfol	lio Statistics		
		Alpha*:	-0.02	P/E:	-
Strategy Asset (\$ mm):	33,606.00	Beta*:	0.42	P/B:	-
Share Class Assets (\$ mm):	33.606.00		as of date 6/30/2021	SEC Yield (%):	-
Office Oldss Associa (\$ film).	30,000.00			Turnover:	-
Manager:	Nafis T. Smith			as of date	12/31/2021
		*Best fit ind	lex: Morningstar US Cas	h T-bill TR USD	

*3-year statistic: Morningstar US Cash T-bill TR USD

Manager Tenure:
Scorecard

			Style		Ri	sk / Return		Pee	r Group	Qual. (2pt	Score
Active Strategies	Ticker	Style	Sty l e Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Money Market											
Vanguard Treasury	VUSXX	-	-	-	-	-	-	-	-	-	-
Money Market Investor	100///	-	-	-	-	-	-	-	-	-	-

4 Years

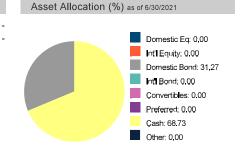
Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Vanguard Treasury	-	-	-	-	-	-	-	-
Money Market Investor	-	-	-	-	-	-	-	-

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 6/30/2021		Additional Information	
United States Treasury Bills	6.35	Prospectus Net Exp. Ratio:	0.09
United States Treasury Bills	5.31	Prospectus Gross Exp. Ratio:	0.09
United States Treasury Bills	4.94	Avg Exp Ratio Morningstar (%):	0.16
United States Treasury Bills	4.62		
United States Treasury Bills	4.52	12b-1 fees (%):	-
United States Treasury Bills	4.51	Closed - New Inv:	Yes
United States Treasury Bills	4.40	Closed - All Inv:	-
United States Treasury Bills	4.31	Min Investment:	\$50,000
United States Treasury Bills	4.18	Waiver Amt:	-
United States Treasury Bills	3.53	Waiver Exp Date:	-
% in Top 10 Holdings	46.66	Strategy Inception:	12/14/1992
# of Holdings	44	Share Class Inception:	12/14/1992

Fixed Income Detail as of 6/30/2021

Average Effective Duration*: Effective Maturity:



% Emerging Mkt: 0.00

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Vanguard Treasury Money Market Investor	0.00%	0.01%	0.01%	0.87%	1.04%	0.55%	2.31%
■ FTSE 3-Mo Treasury Bill	0.01%	0.05%	0.05%	0.96%	1.11%	0.60%	
■ Peer Group*	0.00%	0.02%	0.02%	0.71%	0.81%	0.42%	
Peer Group Rank*	-	-	-	-	-	-	-
Peer Group Size (funds)*	-	-	564	516	477	392	-

*Morningstar Peer Group: Money Market-Taxable

The performance analysis displayed is reflective of past performance. Past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate over time. Current performance may differ from the performance displayed. Investing includes risk, including potential loss of principal. Carefully consider any and all investment objectives, risk factors and charges and expenses before investing. Contact your financial advisor or consultant for funds current performance and a copy of the most recent prospectus.

TIAA Traditional

Group Retirement Annuity (GRA)

Guaranteed As of 12/31/2021

Account Description

For over 100 years our flagship product, TIAA Traditional Annuity, has helped millions of participants build and prepare a solid retirement foundation. Our fixed annuity provides *Guaranteed Growth* which means the value of your retirement savings is guaranteed to increase every day even in the most volatile markets. It also provides *Guaranteed Lifetime Income* by allowing you to turn your savings into regular monthly income to meet your everyday living expenses in retirement. It's like getting a "paycheck" when you stop working. TIAA stands apart by offering *Exclusive Benefits*.

Our 'sharing the profits' approach seeks to reward you with additional growth and income.¹

Among the Highest-Rated Insurance Companies in the U.S.

A++ A.M. Best Company (as of 7/21)	AAA Fitch Ratings (as of 11/21)
Aa1 Moody's Investors Service	AA+ Standard & Poor's (as of 9/21)

For its stability, claims-paying ability and overall financial strength, Teachers Insurance and Annuity Association of America (TIAA) is a member of one of only three insurance groups in the United States to currently hold the highest rating available to U.S. insurers from three of the four leading insurance company rating agencies: A.M. Best, Fitch, and Standard & Poor's, and the second highest possible rating from Moody's Investors Service. There is no guarantee that current ratings will be maintained. The financial strength ratings represent a company's ability to meet policyholders' obligations and do not apply to variable annuities or any other product or service not fully backed by TIAA's claims-paying ability. The ratings also do not apply to the safety or the performance of the variable accounts, which will fluctuate in value.

Learn More

For more information please contact: **800-842-2252**Weekdays, 8 a.m. to 10 p.m. (ET), or visit **TIAA.org**

Performance							
	Total F	Return	Δ	verage A	nnual To	tal Retur	n
							Since
	3 Months	YTD	1 Year	3 Years	5 Years	10 Years	Inception
Group Retirement Annuity (GRA)	0.81%	3.34%	3.34%	3.62%	3.70%	3.88%	-

Accumulations are credited with interest based on when contributions and transfers are received, and your performance will reflect your pattern of contributions. The returns shown in the table reasonably represent what an individual making level monthly premiums would have historically earned over the time periods. Returns for different time periods are calculated in two steps: monthly performance returns are calculated from an accumulation created by a series of level monthly premiums over the prior 10 years (or the inception date of the product if later), and those monthly returns are linked together to determine historical performance for each of the return periods shown.

Group Retirement Annuity contract form Series G1000.4, G1000.5, G1000.6, G1000.7

Account Overview

TIAA Traditional is designed to be a core component of a diversified retirement savings portfolio. It has helped prepare millions of people like you with a solid foundation for retirement. Contributing to it gives you the peace of mind and certainty that you will have a "salary" in retirement that can help cover your basic, everyday living expenses without worrying about outliving your income. In up and down markets, TIAA Traditional preserves the value of your savings. In fact, your balance will grow every day – guaranteed. Our unique approach, consistent with TIAA's overall mission, may reward you with additional amounts of lifetime income the longer you have contributed to TIAA Traditional.

When you are ready, you can choose when and how much to convert to lifetime income so you can be certain you (and a spouse or partner you may choose to include) will have income you cannot outlive – a choice that only an annuity can provide. If you can cover your basic living expenses with TIAA Traditional, you will be able to use the other money you have saved for discretionary purposes.

For Group Retirement Annuity (GRA) contracts, TIAA Traditional guarantees your principal and a 3% minimum annual interest rate for all premiums. The account also offers the opportunity for additional amounts in excess of the guaranteed rate. When declared, additional amounts remain in effect for the twelve-month period that begins each March 1.

Participant Transfers, Withdrawals and Income Options

TIAA Traditional is designed primarily to help meet your long-term retirement income needs; it is not a short-term savings vehicle. Therefore, some contracts require that benefits are paid in installments over time and/or may impose surrender charges on certain withdrawals. TIAA has rewarded participants who save in contracts where benefits are paid in installments over time instead of in an immediate lump-sum by crediting higher interest rates, typically 0.50% to 0.75% higher. Higher rates will lead to higher account balances and more retirement income for you.

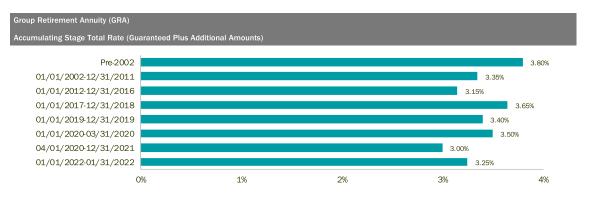
For Group Retirement Annuity (GRA) contracts, and subject to the terms of your employer's plan, lumpsum withdrawals are available from the TIAA Traditional account only within 120 days after termination of employment and are subject to a 2.5% surrender charge. All other withdrawals and transfers from the account must be paid in ten annual installments.

After termination of employment additional income options may be available including income for life, income for a fixed period of time, interest-only payments, and IRS required minimum distribution payments. We provide a wide selection of income choices because we know that individual goals and needs differ. To find out more, call us at 800-842-2252.



TIAA Retirement Annuity Accounts **TIAA Traditional**

Guaranteed As of 12/31/2021



Rates for premiums applied during the dates above.²

The dates above specify "vintages"—periods in which TIAA received a premium or transfer or credited additional amounts. The rates shown are currently in effect for each vintage and will remain so through February 28, 2022. For current information on rates credited to TIAA Traditional annuities, visit our website at **TIAA.org**. Additional amounts are not guaranteed for the future years.

Important Information

- ¹ Interest credited to TIAA Traditional accumulations includes a guaranteed rate, plus additional amounts as may be established on a year-by-year basis by the TIAA Board of Trustees. The additional amounts, when declared, remain in effect through the "declaration year", which begins each March 1 for accumulating annuities and January 1 for payout annuities. Additional amounts are not guaranteed for periods other than the period for which they are declared. Withdrawals and transfers out will reduce account balances.
- ² Interest on accumulations credited to TIAA Traditional in the accumulating stage includes a guaranteed amount (3% for current premiums in GRA contracts), plus additional amounts that may be declared on a year-by-year basis and are not guaranteed for future years. For information about current rates on additional amounts, visit our website at **TIAA.org**. Guarantees under TIAA Traditional are backed by TIAA's claims-paying ability.

This material is for informational or educational purposes only and does not constitute investment advice under ERISA, a securities recommendation under federal securities laws, or an insurance product recommendation under state insurance laws or regulations. This material is intended to provide you with information to help you make informed decisions. You should not view or construe the availability of this information as a suggestion that you take or refrain from taking a particular course of action, as the advice of an impartial fiduciary, as an offer to sell or a solicitation to buy or hold any securities, as a recommendation of any securities transactions or investment strategy involving securities (including account recommendations), a recommendation to rollover or transfer assets to TIAA or a recommendation to purchase an insurance product. In making this information available to you, TIAA assumes that you are capable of evaluating the information and exercising independent judgment. As such, you should consider your other assets, income and investments and you should not rely on the information as the primary basis for making investment or insurance product purchase or contribution decisions. The information that you may derive from this material is for illustrative purposes only and is not individualized or based on your particular needs. This material does not take into account your specific objectives or circumstances, or suggest any specific course of action. Investment, insurance product purchase or contribution decisions should be made based on your own objectives and circumstances. The purpose of this material is not to predict future returns, but to be used as education only. Contact your tax advisor regarding the tax implications. You should read all associated disclosures.

TIAA Traditional is a guaranteed insurance contract and not an investment for Federal Securities Law purposes. Annuity contracts contain terms for keeping

Investment, insurance and annuity products are not FDIC insured, are not bank guaranteed, are not deposits, are not insured by any federal government agency, are not a condition to any banking service or activity, and may lose value.

Teachers Insurance and Annuity Association of America (TIAA), New York, NY, issues annuity contracts and certificates.

TIAA Traditional

Retirement Annuity (RA)

Guaranteed As of 12/31/2021

Account Description

For over 100 years our flagship product, TIAA Traditional Annuity, has helped millions of participants build and prepare a solid retirement foundation. Our fixed annuity provides *Guaranteed Growth* which means the value of your retirement savings is guaranteed to increase every day even in the most volatile markets. It also provides *Guaranteed Lifetime Income* by allowing you to turn your savings into regular monthly income to meet your everyday living expenses in retirement. It's like getting a "paycheck" when you stop working. TIAA stands apart by offering *Exclusive Benefits*.

Our 'sharing the profits' approach seeks to reward you with additional growth and income.¹

Among the Highest-Rated Insurance Companies in the U.S.

A++ A.M. Best Company (as of 7/21)	AAA Fitch Ratings (as of 11/21)
Aa1 Moody's Investors Service (as of 5/21)	AA+ Standard & Poor's (as of 9/21)

For its stability, claims-paying ability and overall financial strength, Teachers Insurance and Annuity Association of America (TIAA) is a member of one of only three insurance groups in the United States to currently hold the highest rating available to U.S. insurers from three of the four leading insurance company rating agencies: A.M. Best, Fitch, and Standard & Poor's, and the second highest possible rating from Moody's Investors Service. There is no guarantee that current ratings will be maintained. The financial strength ratings represent a company's ability to meet policyholders' obligations and do not apply to variable annuities or any other product or service not fully backed by TIAA's claims-paying ability. The ratings also do not apply to the safety or the performance of the variable accounts, which will fluctuate in value.

Learn More

For more information please contact: **800-842-2252**Weekdays, 8 a.m. to 10 p.m. (ET), or visit **TIAA.org**

Performance							
	Total F	Return	А	verage A	nnual To	tal Retur	n
							Since
	3 Months	YTD	1 Year	3 Years	5 Years	10 Years	Inception
Retirement Annuity (RA)	0.81%	3.34%	3.34%	3.62%	3.70%	3.88%	-

Accumulations are credited with interest based on when contributions and transfers are received, and your performance will reflect your pattern of contributions. The returns shown in the table reasonably represent what an individual making level monthly premiums would have historically earned over the time periods. Returns for different time periods are calculated in two steps: monthly performance returns are calculated from an accumulation created by a series of level monthly premiums over the prior 10 years (or the inception date of the product if later), and those monthly returns are linked together to determine historical performance for each of the return periods shown.

Retirement Annuity contract form Series 1000.24

Account Overview

TIAA Traditional is designed to be a core component of a diversified retirement savings portfolio. It has helped prepare millions of people like you with a solid foundation for retirement. Contributing to it gives you the peace of mind and certainty that you will have a "salary" in retirement that can help cover your basic, everyday living expenses without worrying about outliving your income. In up and down markets, TIAA Traditional preserves the value of your savings. In fact, your balance will grow every day – guaranteed. Our unique approach, consistent with TIAA's overall mission, may reward you with additional amounts of lifetime income the longer you have contributed to TIAA Traditional.

When you are ready, you can choose when and how much to convert to lifetime income so you can be certain you (and a spouse or partner you may choose to include) will have income you cannot outlive – a choice that only an annuity can provide. If you can cover your basic living expenses with TIAA Traditional, you will be able to use the other money you have saved for discretionary purposes.

For Retirement Annuity (RA) contracts, TIAA Traditional guarantees your principal and a 3% minimum annual interest rate for all premiums remitted since 1979. The account also offers the opportunity for additional amounts in excess of the guaranteed rate. When declared, additional amounts remain in effect for the twelve-month period that begins each March 1.

Participant Transfers, Withdrawals and Income Options

TIAA Traditional is designed primarily to help meet your long-term retirement income needs; it is not a short-term savings vehicle. Therefore, some contracts require that benefits are paid in installments over time and/or may impose surrender charges on certain withdrawals. TIAA has rewarded participants who save in contracts where benefits are paid in installments over time instead of in an immediate lump-sum by crediting higher interest rates, typically 0.50% to 0.75% higher. Higher rates will lead to higher account balances and more retirement income for you.

For Retirement Annuity (RA) contracts lump-sum withdrawals are not available from the TIAA Traditional account. Subject to the terms of your employer's plan, all withdrawals and transfers from the account must be paid in ten annual installments.

After termination of employment additional income options may be available including income for life, interest-only payments, and IRS required minimum distribution payments. We provide a wide selection of income choices because we know that individual goals and needs differ. To find out more, call us at 800-842-2252



TIAA Retirement Annuity Accounts **TIAA Traditional**

Guaranteed As of 12/31/2021



Rates for premiums applied during the dates above.²

The dates above specify "vintages"—periods in which TIAA received a premium or transfer or credited additional amounts. The rates shown are currently in effect for each vintage and will remain so through February 28, 2022. For current information on rates credited to TIAA Traditional annuities, visit our website at **TIAA.org**. Additional amounts are not guaranteed for the future years.

Important Information

- ¹ Interest credited to TIAA Traditional accumulations includes a guaranteed rate, plus additional amounts as may be established on a year-by-year basis by the TIAA Board of Trustees. The additional amounts, when declared, remain in effect through the "declaration year", which begins each March 1 for accumulating annuities and January 1 for payout annuities. Additional amounts are not guaranteed for periods other than the period for which they are declared. Withdrawals and transfers out will reduce account balances.
- ² Interest on accumulations credited to TIAA Traditional in the accumulating stage includes a guaranteed amount (3% for current premiums in RA contracts), plus additional amounts that may be declared on a year-by-year basis and are not guaranteed for future years. For information about current rates on additional amounts, visit our website at **TIAA.org**. Guarantees under TIAA Traditional are backed by TIAA's claims-paying ability.

This material is for informational or educational purposes only and does not constitute investment advice under ERISA, a securities recommendation under federal securities laws, or an insurance product recommendation under state insurance laws or regulations. This material is intended to provide you with information to help you make informed decisions. You should not view or construe the availability of this information as a suggestion that you take or refrain from taking a particular course of action, as the advice of an impartial fiduciary, as an offer to sell or a solicitation to buy or hold any securities, as a recommendation of any securities transactions or investment strategy involving securities (including account recommendations), a recommendation to rollover or transfer assets to TIAA or a recommendation to purchase an insurance product. In making this information available to you, TIAA assumes that you are capable of evaluating the information and exercising independent judgment. As such, you should consider your other assets, income and investments and you should not rely on the information as the primary basis for making investment or insurance product purchase or contribution decisions. The information that you may derive from this material is for illustrative purposes only and is not individualized or based on your particular needs. This material does not take into account your specific objectives or circumstances, or suggest any specific course of action. Investment, insurance product purchase or contribution decisions should be made based on your own objectives and circumstances. The purpose of this material is not to predict future returns, but to be used as education only. Contact your tax advisor regarding the tax implications. You should read all associated disclosures.

TIAA Traditional is a guaranteed insurance contract and not an investment for Federal Securities Law purposes. Annuity contracts contain terms for keeping

Investment, insurance and annuity products are not FDIC insured, are not bank guaranteed, are not deposits, are not insured by any federal government agency, are not a condition to any banking service or activity, and may lose value.

Teachers Insurance and Annuity Association of America (TIAA), New York, NY, issues annuity contracts and certificates.

TIAA Traditional

Retirement Choice Annuity (RC)

Guaranteed As of 12/31/2021

Account Description

For over 100 years our flagship product, TIAA Traditional Annuity, has helped millions of participants build and prepare a solid retirement foundation. Our fixed annuity provides *Guaranteed Growth* which means the value of your retirement savings is guaranteed to increase every day even in the most volatile markets. It also provides *Guaranteed Lifetime Income* by allowing you to turn your savings into regular monthly income to meet your everyday living expenses in retirement. It's like getting a "paycheck" when you stop working. TIAA stands apart by offering *Exclusive Benefits*.

Our 'sharing the profits' approach seeks to reward you with additional growth and income.¹

Among the Highest-Rated Insurance Companies in the U.S.

A++ A.M. Best Company (as of 7/21)	AAA Fitch Ratings (as of 11/21)
Aa1 Moody's Investors Service (as of 5/21)	AA+ Standard & Poor's (as of 9/21)

For its stability, claims-paying ability and overall financial strength, Teachers Insurance and Annuity Association of America (TIAA) is a member of one of only three insurance groups in the United States to currently hold the highest rating available to U.S. insurers from three of the four leading insurance company rating agencies: A.M. Best, Fitch, and Standard & Poor's, and the second highest possible rating from Moody's Investors Service. There is no guarantee that current ratings will be maintained. The financial strength ratings represent a company's ability to meet policyholders' obligations and do not apply to variable annuities or any other product or service not fully backed by TIAA's claims-paying ability. The ratings also do not apply to the safety or the performance of the variable accounts, which will fluctuate in value.

Learn More

For more information please contact: **800-842-2252**Weekdays, 8 a.m. to 10 p.m. (ET), or visit **TIAA.org**

Performance							
	Total R	eturn	А	verage A	nnual To	tal Retur	'n
	3 Months	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Retirement Choice Annuity (RC) Inception Date: 08/01/05	0.86%	3.55%	3.55%	3.85%	3.95%	4.17%	4.36%

Accumulations are credited with interest based on when contributions and transfers are received, and your performance will reflect your pattern of contributions. The returns shown in the table reasonably represent what an individual making level monthly premiums would have historically earned over the time periods. Returns for different time periods are calculated in two steps: monthly performance returns are calculated from an accumulation created by a series of level monthly premiums over the prior 10 years (or the inception date of the product if later), and those monthly returns are linked together to determine historical performance for each of the return periods shown.

Retirement Choice (RC) TIAA Contract form Series - IGRS-01-84-ACC and IGRS-02-ACC / TIAA Certificate Series - IGRS-CERT2-84-ACC and IGRS-CERT3-ACC.

Account Overview

TIAA Traditional is designed to be a core component of a diversified retirement savings portfolio. It has helped prepare millions of people like you with a solid foundation for retirement. Contributing to it gives you the peace of mind and certainty that you will have a "salary" in retirement that can help cover your basic, everyday living expenses without worrying about outliving your income. In up and down markets, TIAA Traditional preserves the value of your savings. In fact, your balance will grow every day – guaranteed. Our unique approach, consistent with TIAA's overall mission, may reward you with additional amounts of lifetime income the longer you have contributed to TIAA Traditional.

When you are ready, you can choose when and how much to convert to lifetime income so you can be certain you (and a spouse or partner you may choose to include) will have income you cannot outlive – a choice that only an annuity can provide. If you can cover your basic living expenses with TIAA Traditional, you will be able to use the other money you have saved for discretionary purposes.

For Retirement Choice (RC) Contracts, a guaranteed rate is set each calendar year for amounts remitted in that calendar year. The floating guaranteed rate will be between 1%–3%, inclusive (based on the 5-year Constant Maturity Treasury Rate less 125 bps). The guaranteed rate for each calendar year remittance will be maintained for at least 10 years. The current guaranteed rate is 1.00% for amounts remitted effective January 1, 2020. The account also offers the opportunity for additional amounts in excess of the guaranteed rate. When declared, additional amounts remain in effect for the twelve-month period that begins each March 1.

Participant Transfers, Withdrawals and Income Options

TIAA Traditional is designed primarily to help meet your long-term retirement income needs; it is not a short-term savings vehicle. Therefore, some contracts require that benefits are paid in instillements over time and/or may impose surrender charges on certain withdrawals. TIAA has rewarded participants who save in contracts where benefits are paid in installments over time instead of in an immediate lump-sum by crediting higher interest rates, typically 0.50% to 0.75% higher. Higher rates will lead to higher account balances and more retirement income for you.

For Retirement Choice (RC) contracts, and subject to the terms of your employer's plan, lump-sum withdrawals are available from the TIAA Traditional account only within 120 days after termination of employment and are subject to a 2.5% surrender charge. All other withdrawals and transfers from the account must be paid in 84 monthly installments (7 years).

After termination of employment additional income options may be available including income for life, interest-only payments, and IRS required minimum distribution payments. We provide a wide selection of income choices because we know that individual goals and needs differ. To find out more, call us at 800-842-2252.



TIAA Retirement Annuity Accounts **TIAA Traditional**

Guaranteed As of 12/31/2021



Rates for premiums applied during the dates above.²

The dates above specify "vintages"—periods in which TIAA received a premium or transfer. The rates shown are currently in effect for each vintage and will remain so through February 28, 2022. For current information on rates credited to TIAA Traditional annuities, visit our website at **TIAA.org**. Additional amounts are not guaranteed for the future years.

Contractholder Withdrawals

The Contractholder (typically your employer as the sponsor of your plan) has the right to request a transfer of the contract's entire TIAA Traditional accumulation. This might occur, for example, if your employer has elected to use a new recordkeeper and has also elected to terminate the contract with TIAA. If elected, your TIAA Traditional accumulations would be reinvested at the direction of your plan sponsor. Contractholder-initiated payments from TIAA Traditional accumulations will be paid in a series of 60 monthly installments, without any surrender charge. Please refer to your contract certificate for additional details.

Important Information

- ¹ Interest credited to TIAA Traditional accumulations includes a guaranteed rate, plus additional amounts as may be established on a year-by-year basis by the TIAA Board of Trustees. The additional amounts, when declared, remain in effect through the "declaration year", which begins each March 1 for accumulating annuities and January 1 for payout annuities. Additional amounts are not guaranteed for periods other than the period for which they are declared. Withdrawals and transfers out will reduce account balances.
- ² Interest on accumulations credited to TIAA Traditional in the accumulating stage includes a guaranteed amount (1.00% for current premiums in RC contracts through February 28, 2022), plus additional amounts that may be declared on a year-by-year basis and are not guaranteed for future years. For information about current rates on additional amounts, visit our website at **TIAA.org**. Guarantees under TIAA Traditional are backed by TIAA's claims-paying ability.

This material is for informational or educational purposes only and does not constitute investment advice under ERISA, a securities recommendation under federal securities laws, or an insurance product recommendation under state insurance laws or regulations. This material is intended to provide you with information to help you make informed decisions. You should not view or construe the availability of this information as a suggestion that you take or refrain from taking a particular course of action, as the advice of an impartial fiduciary, as an offer to sell or a solicitation to buy or hold any securities, as a recommendation of any securities transactions or investment strategy involving securities (including account recommendations), a recommendation to rollover or transfer assets to TIAA or a recommendation to purchase an insurance product. In making this information available to you, TIAA assumes that you are capable of evaluating the information and exercising independent judgment. As such, you should consider your other assets, income and investments and you should not rely on the information as the primary basis for making investment or insurance product purchase or contribution decisions. The information that you may derive from this material is for illustrative purposes only and is not individualized or based on your particular needs. This material does not take into account your specific objectives or circumstances, or suggest any specific course of action. Investment, insurance product purchase or contribution decisions should be made based on your own objectives and circumstances. The purpose of this material is not to predict future returns, but to be used as education only. Contact your tax advisor regarding the tax implications. You should read all associated disclosures.

TIAA Traditional is a guaranteed insurance contract and not an investment for Federal Securities Law purposes. Annuity contracts contain terms for keeping them in force

Investment, insurance and annuity products are not FDIC insured, are not bank guaranteed, are not deposits, are not insured by any federal government agency, are not a condition to any banking service or activity, and may lose value.

Teachers Insurance and Annuity Association of America (TIAA), New York, NY, issues annuity contracts and certificates.

Vanguard Total Bond Market Index I **Category: Core Fixed Income**

VBTIX 12/31/2021

Fund Strategy

The investment seeks to track the performance of the Bloomberg Barclays U.S. Aggregate Float Adjusted Index. This index measures the performance of 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. All of the fund's investments will be selected through the sampling process, and at least 80% of its assets will be invested in bonds held in the index.

Fund Information

Strategy Asset (\$ mm): 317.762.00

Share Class Assets (\$ mm): 49.701.00

Joshua C. Barrickman Manager

9 Years Manager Tenure:

Portfolio Statistics

Alpha*: -0.18 P/F Beta* 1.06 P/B: as of date 11/30/2021 SEC Yield (%): 1.58 Turnover: 79.00

as of date 12/31/2021

*Best fit index: Bloomberg US Agg Bond TR USD *3-year statistic: Bloomberg US Agg Bond TR USD

Scorecard

		Style					Pee	Qual. (2pt	Score		
Passive Strategies	Ticker	Style	Sty l e Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Ratio Rank	max)	Q4 2021
Core Fixed Income											
Vanguard Total Bond		1	0	1	1	1	1	1	1	2	9
Market Index I	VBTIX	10.09/ 60.86	14.55	99.3 4	0.34	63.00	12.00	12.00	18.00	-	CFI-P

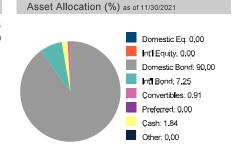
Passive Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Vanguard Total Bond	9	9	9	10	10	10	10	10
Market Index I	CFI-P	CFI-P	CFI-P	CFI-P	CFI-P	CFI-P	CFI-P	CFI-P

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
United States Treasury Notes	0.66	Prospectus Net Exp. Ratio:	0.04
United States Treasury Notes	0.52	Prospectus Gross Exp. Ratio:	0.04
United States Treasury Notes	0.51	Avg Exp Ratio Morningstar (%):	0.59
United States Treasury Notes	0.50		
United States Treasury Notes	0.46	12b-1 fees (%):	-
United States Treasury Notes	0.44	Closed - New Inv:	-
United States Treasury Notes	0.44	Closed - All Inv:	-
United States Treasury Notes	0.43	Min Investment:	\$5,000,000
United States Treasury Notes	0.42	Waiver Amt:	-
United States Treasury Bonds	0.41	Waiver Exp Date:	-
% in Top 10 Holdings	4.80	Strategy Inception:	12/11/1986
# of Holdings	18.684	Share Class Inception:	9/18/1995

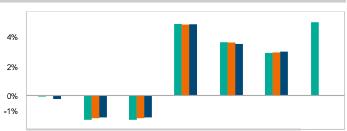
Fixed Income Detail as of 11/30/2021

Average Effective Duration*: 6.84 Effective Maturity: 8.80



% Emerging Mkt: 0.00

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ Vanguard Total Bond Market Index I	-0.08%	-1.65%	-1.65%	4.83%	3.59%	2.87%	4.95%
■ BB Aggregate Bond	0.01%	-1.54%	-1.54%	4.79%	3.57%	2.90%	
■ Peer Group*	-0.24%	-1.48%	-1.48%	4.81%	3.47%	2.95%	
Peer Group Rank*	27	50	50	45	40	53	-
Peer Group Size (funds)*	-	-	423	386	348	253	-

*Morningstar Peer Group: Intermediate Core Bond

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CREF Bond Market R3 Category: Core Fixed Income

F00000VAW1 12/31/2021

Fund Strategy

The investment seeks long-term rate of return, primarily through high current income consistent with preserving capital. The fund invests at least 80% of its assets in a broad range of fixed-income securities. The majority of the account's assets are invested in U.S. Treasury and other governmental agency securities, corporate bonds and mortgage-backed or other asset-backed securities. The fund can also invest in below-investment-grade securities.

13.625.24

18 Years

John Michael Cerra

Fund Information

Alpha*:

Strategy Asset (\$ mm):

-0.54 P/F Beta*: 1.13 P/B: as of date 11/30/2021 SEC Yield (%): 1.82

Share Class Assets (\$ mm):

135.00 Turnover

Manager

as of data 12/31/2021

Manager Tenure:

*Best fit index: Bloomberg US Universal TR USD *3-year statistic: Bloomberg US Universal TR USD

Portfolio Statistics

Scorecard

Active Strategies	Ticker	Style			Risk / Return			Peer Group		Qual. (2pt	Score
		Style	Style Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Core Fixed Income											
CREF Bond Market R3	F00000VAW1	1	1	1	1	1	1	1	1	2	10
		-30.45/ 49.36	11.49	83. 28	3.38/ 3.85	105.91/ 102.97	0.20	38.00	33.00	-	CFI

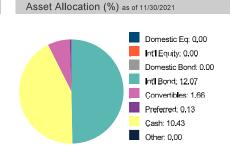
Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
CREF Bond Market R3	10	10	10	10	10	9	9	7
	CFI	CFI	CFI	CFI	CFI	CFI	CFI	CFI

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021 Additional Information Federal National Mortgage Association 2.5% 2.26 Prospectus Net Exp. Ratio: 0.21 2.23 Prospectus Gross Exp. Ratio: 0.21 Federal National Mortgage Association 2% Federal National Mortgage Association 3% Avg Exp Ratio Morningstar (%): 0.57 United States Treasury Bonds 2% 1.06 Federal Home Loan Banks 0% 1.04 12b-1 fees (%): Government National Mortgage Association 2.5% 1.03 Closed - New Inv: Closed - All Inv Federal National Mortgage Association 2.5% Min Investment: Government National Mortgage Association 2.5% \$0 Federal National Mortgage Association 2% 0.65 Waiver Amt: United States Treasury Notes 1.375% Waiver Exp Date: % in Top 10 Holdings Strategy Inception: 3/1/1990 # of Holdings Share Class Inception: 3/1/1990

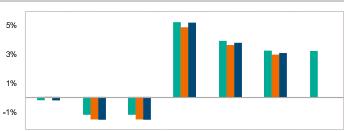
Fixed Income Detail as of 11/30/2021

Average Effective Duration*: 6.22 Effective Maturity: 8.19



% Emerging Mkt: 0.00

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
CREF Bond Market R3	-0.22%	-1.23%	-1.23%	5.14%	3.85%	3.18%	3.16%
■ BB Aggregate Bond	0.01%	-1.54%	-1.54%	4.79%	3.57%	2.90%	
■ Peer Group*	-0.23%	-1.57%	-1.57%	5.10%	3.72%	3.02%	
Peer Group Rank*	54	28	28	33	24	33	-
Peer Group Size (funds)*	-	-	423	386	348	253	-

*Morningstar Peer Group: Intermediate Core Bond

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Vanguard Inflation-Protected Secs I Category: U.S. Government TIPS

VIPIX

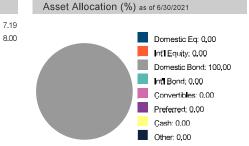
Fund Strategy

The investment seeks to provide inflation protection and income consistent with investment in inflation-indexed securities. The fund invests at least 80% of its assets in inflation-indexed bonds issued by the U.S. government, its agencies and instrumentalities, and corporations. It may invest in bonds of any maturity; however, its dollar-weighted average maturity is expected to be in the range of 7 to 20 years. At a minimum, all bonds purchased by the fund will be rated investment-grade or, if unrated, will be considered by the advisor to be investmentgrade.

9							
Fund Information	n	Portfolio Statistics					
		Alpha*:	0.35	P/E:	-		
Strategy Asset (\$ mm):	41,091.00	Beta*:	0.93	P/B:	-		
Share Class Assets (\$ m	m): 14.706.00		as of date 6/30/2021	SEC Yield (%):	-1.66		
Office Oldoo7 toooto (\$11	11,700.00			Turnover:	48.00		
Manager:	Gemma Wright-Casparius			as	of date 12/31/2021		

*Best fit index: Bloomberg US Treasury US TIPS TR USD 10 Years Manager Tenure: *3-year statistic: Bloomberg US Treasury US TIPS TR USD

12/31/2021



% Emerging Mkt: 0.00

Scorecard

		Style		Risk / Return			Peei	Group	Qual. (2pt	Score	
Active Strategies	Ticker	Style	Sty l e Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
U.S. Government TIPS											
Vanguard Inflation-		1	1	1	1	1	0	1	1	2	9
Vanguard Inflation- Protected Secs I	VIPIX	-90.54/ 93.11	3.20	98.3 7	3.39/ 5.22	96.48/ 94.40	-0.26	13.00	17.00	-	UGT

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Vanguard Inflation- Protected Secs I	9	8	8	8	9	8	8	8
	UGT	UGT	UGT	UGT	UGT	UGT	UGT	UGT

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

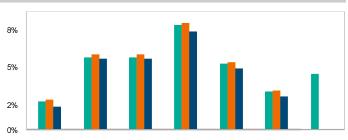
Top 10 Holdings(%) as of 6/30/2021		Additional Information	
United States Treasury Notes	3.82	Prospectus Net Exp. Ratio:	0.07
United States Treasury Notes	3.71	Prospectus Gross Exp. Ratio:	0.07
United States Treasury Notes	3.68	Avg Exp Ratio Morningstar (%):	0.61
United States Treasury Notes	3.62		
United States Treasury Notes	3.49	12b-1 fees (%):	-
United States Treasury Notes	3.41	Closed - New Inv:	-
United States Treasury Notes	3.34	Closed - All Inv:	-
United States Treasury Notes	3.20	Min Investment:	\$5,000,000
United States Treasury Notes	3.17	Waiver Amt:	-
United States Treasury Notes	3.04	Waiver Exp Date:	-
% in Top 10 Holdings	34.46	Strategy Inception:	6/29/2000
# of Holdings	45	Share Class Inception:	12/12/2003

Performance Analysis as of 12/31/2021

Fixed Income Detail as of 6/30/2021

Average Effective Duration*:

Effective Maturity:



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ Vanguard Inflation-Protected Secs I	2.22%	5.72%	5.72%	8.29%	5.22%	3.01%	4.41%
■ BB TIPS	2.36%	5.96%	5.96%	8.44%	5.34%	3.09%	
■ Peer Group*	1.80%	5.61%	5.61%	7.77%	4.84%	2.61%	
Peer Group Rank*	28	30	30	32	30	20	-
Peer Group Size (funds)*	_	_	209	202	179	124	_

*Morningstar Peer Group: Inflation-Protected Bond

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CREF Social Choice R3 Category: Moderate

F00000VAW7 12/31/2021

Fund Strategy

The investment seeks a favorable long-term rate of return that reflects the investment performance of the financial markets while giving special consideration to certain social criteria. The fund invests in a diversified set of domestic and foreign stocks and other equity securities, bonds and other fixed-income securities, as well as money market instruments and other short-term debt instruments. It invests in issuers that are suitable from a financial perspective and whose activities are consistent with certain environmental, social and governance ("ESG") or Impact criteria.

Fund Information

Strategy Asset (\$ mm): 19.752.64

Share Class Assets (\$ mm):

Stephen M. Liberatore Manager

Manager Tenure: 17 Years

Portfolio Statistics

Alpha*:	1.12	P/E:	-
Beta*:	0.92	P/B:	-
	as of date 11/30/2021	SEC Yield (%):	-

*Best fit index: Morningstar Lifetime Mod 2030 TR USD

*3-year statistic: Morningstar Lifetime Mod 2030 TR USD

1 0111	ono otatistics		
.lpha*:	1.12	P/E:	-
eta*:	0.92	P/B:	-
	as of date 11/30/2021	SEC Yield (%):	-
		T	400.00

as of date 12/31/2021

Scorecard

Asset Allocation	Ticker	Style		Risk / Return			Peer Group		Qual. (2pt	Score	
Strategies		Risk Level	Sty l e Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	max)	Q4 2021
Moderate	Moderate										
CREF Social Choice		1	1	1	0	0	0	1	1	2	7
R3	F00000VAW7	9.62	60.64/ 39.36	98. 80	9.62/ 11.06	99.82/ 100.35	-0.06	11.00	14.00	-	MOD

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
CREF Social Choice	7	7	7	7	7	7	7	7
R3	MOD	MOD	MOD	MOD	MOD	MOD	MOD	MOD

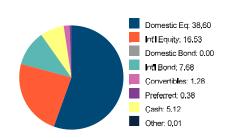
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Top 10 Holdings(%) as of 11/30/2021		Additional Information				
Microsoft Corp / MSFT	2.30	Prospectus Net Exp. Ratio:	0.20			
Tesla Inc / TSLA	0.97	Prospectus Gross Exp. Ratio:	0.20			
NVIDIA Corp / NVDA		Avg Exp Ratio Morningstar (%):				
United States Treasury Bonds 2%	0.84					
Federal National Mortgage Association 2.5%	0.78	12b-1 fees (%):	0.04			
United States Treasury Notes 1.25%		Closed - New Inv:	-			
Federal National Mortgage Association 2%	0.70	Closed - All Inv:	-			
The Home Depot Inc / HD	0.56	Min Investment:	\$0			
Federal National Mortgage Association 3%	0.55	Waiver Amt:	-			
Procter & Gamble Co / PG	0.49	Waiver Exp Date:	-			
% in Top 10 Holdings	8.83	Strategy Inception:	3/1/1990			
# of Holdings	1,980	Share Class Inception:	3/1/1990			

Risk Bucket as of 12/31/2021

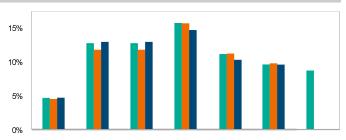
Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	9.62
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X≤5.75	-

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 0.58

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
CREF Social Choice R3	4.63%	12.64%	12.64%	15.60%	11.06%	9.54%	8.63%
StyleBenchmark*	4.45%	11.68%	11.68%	15.57%	11.12%	9.69%	
Peer Group**	4.65%	12.83%	12.83%	14.57%	10.22%	9.51%	
Peer Group Rank*	49	60	60	41	37	44	-
Peer Group Size (funds)*	-	-	710	665	601	433	-

*1.48% Merrill Lynch 3-Month T-Bill, 37.87% BB Aggregate Bond, 44.95% Russell 3000, 15.69% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Allocation-50% to 70% Equity

American Funds Washington Mutual R6 Category: Large Cap Blend¹

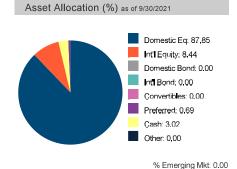
RWMGX 12/31/2021

Fund Strategy

The investment seeks to produce income and to provide an opportunity for growth of principal consistent with sound common stock investing. The fund invests primarily in common stocks of established companies that are listed on, or meet the financial listing requirements of, the New York Stock Exchange and have a strong record of earnings and dividends. Its advisor strives to maintain a fully invested, diversified portfolio, consisting primarily of high-quality common stocks.

Fund Information		Portfolio Statistics						
		Alpha*:	2.63	P/E:	19.95			
Strategy Asset (\$ mm):	170,442.00	Beta*:	0.89	P/B:	3.17			
Share Class Assets (\$ mm):	36.267.00	а	s of date 9/30/2021	SEC Yield (%):	1.66			
Onare Olass Assets (\$ mm).	50,207.00			Turnover:	24.00			
Manager:	Alan N. Berro			as	of date 12/31/2021			
	, , , , , , , , , , , , , , , , , , , ,			*Best fit index: Morningstar US Large Mid Brd Val TR USD				
Manager Tenure:	25 Years	*3-year statistic: Morningstar US Large Mid Brd Val TR USD						

Sector Allocation as of 9/30/2021 Real Estate: 2.25 Utilities: 3.43 Basic Materials: 3.75 Energy: 5.35 5.77 Cons Cyclical: Cons Defensive: 5.77 Comm: 8.41 Industrials: 10.37 Healthcare: 16.84 Technology: 17.73 Financial Services: 20.33



Scorecard

		Style			Risk / Return			Peer Group		Qual. (2pt	Score
Active Strategies	Ticker	Style	Sty l e Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Large Cap Blend											
A Foreda		0	1	1	1	0	0	0	0	2	5
American Funds Washington Mutu	RWMGX	-51.93/ 88.30	5.09	93.7 6	14.40/ 15.53	85.52/ 90.27	-0.72	68.00	56.00	-	LCB

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
American Funds	5	5	7	7	7	7	7	7
Washington Mutu	LCB	LCB	LCB	LCB	LCB	LCB	LCB	LCB

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 9/30/2021		Additional Information	
Microsoft Corp / MSFT	5.85	Prospectus Net Exp. Ratio:	0.27
Broadcom Inc / AVGO	5.02	Prospectus Gross Exp. Ratio:	0.27
Comcast Corp Class A / CMCSA	4.26	Avg Exp Ratio Morningstar (%):	0.81
UnitedHealth Group Inc / UNH	3.35		
BlackRock Inc / BLK	2.25	12b-1 fees (%):	-
JPMorgan Chase & Co / JPM	2.21	Closed - New Inv:	-
Marsh & McLennan Companies Inc / MMC	2.09	Closed - All Inv:	-
The Home Depot Inc / HD	1.97	Min Investment:	\$250
CVS Health Corp / CVS	1.87	Waiver Amt:	-
Pfizer Inc / PFE	1.76	Waiver Exp Date:	-
% in Top 10 Holdings	30.62	Strategy Inception:	7/31/1952
# of Holdings	190	Share Class Inception:	5/1/2009

Performance Analysis as of 12/31/2021



*Morningstar Peer Group: Large Blend

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Contact (215) 557-7622 for most recent month end performance.

1. Report system default for factsheets use Morningstar categories, which may differ from category and benchmark identified in prospectus.

Hartford Core Equity R6 Category: Large Cap Blend

HAITX 12/31/2021

Fund Strategy

The investment seeks growth of capital. Under normal circumstances, the fund invests at least 80% of its assets in common stocks. Its portfolio seeks to be broadly diversified by industry and company. The fund may invest in a broad range of market capitalizations, but the advisor tends to focus on large capitalization companies with market capitalizations similar to those of companies in the S&P 500 Index.

Fund Information		Portfolio Statistics					
		Alpha*:	0.69	P/E:	24.96		
Strategy Asset (\$ mm):	13,067.00	Beta*:	0.94	P/B:	4.82		
Share Class Assets (\$ mm):	1.094.00		as of date 11/30/2021	SEC Yield (%)	: -		
Share Class Assets (\$ mm).	1,094.00			Tumover:	22.00		
Manager:	Mammen Chally			as	of date 12/31/2021		
		*Best fit in	ndex: Morningstar US I	_arge -M id TR U	SD		
Manager Tenure:	24 Years	*3-year statistic: Morningstar US Large-Mid TR USD					

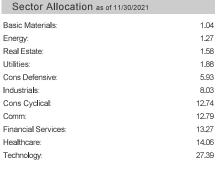
Scorecard

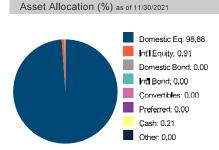
		Styl		Style		Risk / Return			Group	Qual. (2pt	Score
Active Strategies	Ticker	Style	Sty l e Drift	R ²	Risk / Return Up / Down		Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Large Cap Blend											
Hartford Core Equity		1	1	1	1	1	1	1	1	2	10
R6	HAITX	-3.11/ 93.18	5.21	98.5 3	14.82/ 18.92	96.80/ 91.22	0.24	4.00	2.00	-	LCB

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Hartford Core Equity	10	9	9	9	9	9	10	10
R6	LCB	LCB	LCB	LCB	LCB	LCB	LCB	LCB

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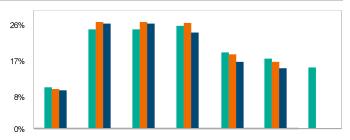
Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Microsoft Corp / MSFT	5.80	Prospectus Net Exp. Ratio:	0.38
Alphabet Inc Class A / GOOGL	5.78	Prospectus Gross Exp. Ratio:	0.38
Apple Inc / AAPL	4.71	Avg Exp Ratio Morningstar (%):	0.81
Amazon.com Inc / AMZN	4.07		
UnitedHealth Group Inc / UNH	2.41	12b-1 fees (%):	-
JPMorgan Chase & Co / JPM	2.37	Closed - New Inv:	-
Meta Platforms Inc Class A / FB	2.36	Closed - All Inv:	-
Bank of America Corp / BAC	2.32	Min Investment:	\$0
Procter & Gamble Co / PG	1.97	Waiver Amt:	0.06
Thermo Fisher Scientific Inc / TMO	1.68	Waiver Exp Date:	2/28/2017
% in Top 10 Holdings	33.45	Strategy Inception:	4/30/1998
# of Holdings	77	Share Class Inception:	3/31/2015





% Emerging Mkt: 0.00

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ Hartford Core Equity R6	10.24%	24.62%	24.62%	25.51%	18.92%	17.36%	15.18%
Russell 1000 Index	9.78%	26.45%	26.45%	26.21%	18.43%	16.54%	
■ Peer Group*	9.47%	26.07%	26.07%	23.83%	16.57%	14.96%	
Peer Group Rank*	45	74	74	37	11	2	-
Peer Group Size (funds)*	-	-	1,382	1,244	1,109	822	-

*Morningstar Peer Group: Large Blend

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Vanguard Institutional Index InstI PI Category: Large Cap Blend

VIIIX 12/31/2021

Fund Strategy

The investment seeks to track the performance of the S&P 500 Index that measures the investment return of large-capitalization stocks. The fund employs an indexing investment approach designed to track the performance of the S&P 500 Index, a widely recognized benchmark of U.S. stock market performance that is dominated by the stocks of large U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

169.535.00

Fund	Information

Strategy Asset (\$ mm): 294.871.00

Share Class Assets (\$ mm):

Donald M. Butler Manager

Manager Tenure: 21 Years

Portfolio Statistics

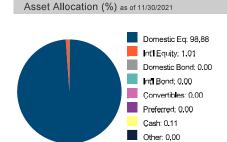
Alpha* - P/F 24 04 Beta* 1.00 P/B: 4.40 as of date 11/30/2021 SEC Yield (%) Turnover: 4.00

as of date 12/31/2021

*Best fit index: S&P 500 TR USD

*3-year statistic: S&P 500 TR USD

Sector Allocation as of 11/30/2021 Basic Materials: 2.20 Utilities: 2.37 Real Estate: 2.62 Energy: 2.70 6.03 Cons Defensive: Industrials: 8.13 Comm: 10.36 Healthcare: 12.80 Cons Cyclical: 12.89 Financial Services: 12.95 Technology: 26.95



% Emerging Mkt: 0.15

Scorecard

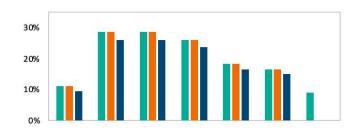
			Style			Peer Group				Qual. (2pt	Score
Passive Strategies	Ticker	Style	Sty l e Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Ratio Rank	max)	Q4 2021
Large Cap Blend											
Vanguard Institutional		1	1	1	1	1	1	1	1	2	10
Index InstI PI	VIIIX	5.12/ 96.76	2.22	99.6 8	1.14	42.00	6.00	16.00	14.00	-	LCB-P

Passive Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Vanguard Institutional	10	10	10	10	10	10	10	10
Index InstI PI	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P

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Top 10 Holdings(%) as of 11/30/2021		Additional Information			
Apple Inc / AAPL	6.71	Prospectus Net Exp. Ratio:	0.02		
Microsoft Corp / MSFT	6.42	Prospectus Gross Exp. Ratio:	0.02		
Amazon.com Inc / AMZN	3.95	Avg Exp Ratio Morningstar (%):	0.81		
Tesla Inc / TSLA	2.40				
Alphabet Inc Class A / GOOGL	2.21	12b-1 fees (%):	-		
NVIDIA Corp / NVDA	2.10	Closed - New Inv:	-		
Alphabet Inc Class C / GOOG	2.07	Closed - All Inv:	-		
Meta Platforms Inc Class A / FB	2.00	Min Investment:	\$100,000,000		
Berkshire Hathaway Inc Class B / BRK.B	1.32	Waiver Amt:	-		
JPMorgan Chase & Co / JPM	1.23	Waiver Exp Date:	-		
% in Top 10 Holdings	30.40	Strategy Inception:	7/31/1990		
# of Holdings	508	Share Class Inception:	7/7/1997		

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ Vanguard Institutional Index InstI PI	11.02%	28.69%	28.69%	26.06%	18.46%	16.54%	9.04%
■ S&P 500 Index	11.03%	28.71%	28.71%	26.07%	18.47%	16.55%	
■ Peer Group*	9.47%	26.07%	26.07%	23.83%	16.57%	14.96%	
Peer Group Rank*	24	23	23	23	17	10	-
Poor Group Size (funds)*			1 382	1 2//	1 100	822	

*Morningstar Peer Group: Large Blend

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CREF Equity Index R3 Category: Large Cap Blend

F00000VAVY 12/31/2021

Fund Strategy

The investment seeks to track the overall market for common stocks publicly traded in the United States, as represented by the Russell 3000® Index. The fund is designed to track the U.S. stock market as a whole and invests in stocks in its benchmark index. the Russell 3000® Index. It buys most, but not necessarily all, of the securities in the Russell 3000® Index, and the advisor attempts to closely match the overall investment characteristics of the index. The fund may also invest in securities and other instruments, such as futures, whose return depends on stock market prices.

Informatio	

Strategy Asset (\$ mm): 25.685.85

Share Class Assets (\$ mm):

Philip James(Jim) Campagna Manager:

16 Years

Manager Tenure:

Portfolio Statistics

Alpha*:	-0.13	P/E:	-
Beta*:	1.00	P/B:	-
	as of date 10/31/2021	SEC Yield (%):	-
		Turnover:	3.00

as of date 12/31/2021

Healthcare:

Technology:

Financial Services:

*Best fit index: Russell 3000 TR USD

*3-year statistic: Russell 3000 TR USD

Scorecard

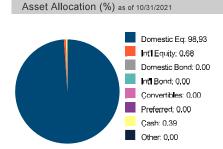
			Sty	/le			Pee	r Group		Qual. (2pt	Score
Passive Strategies	Ticker	Style	Sty l e Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Ratio Rank	max)	Q4 2021
Large Cap Blend	Large Cap Blend										
CREF Equity Index		1	1	1	1	1	1	1	1	2	10
R3	F00000VAVY	3.79/ 86.52	1.34	99. 88	0.66	6.00	26.00	45.00	71.00	-	LCB-P

Passive Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
CREF Equity Index	10	10	10	10	10	10	10	10
R3	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P	LCB-P

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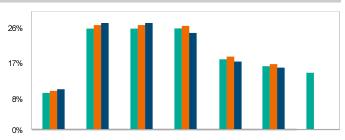
Top 10 Holdings(%) as of 10/31/2021		Additional Information			
Microsoft Corp / MSFT	5.29	Prospectus Net Exp. Ratio:	0.17		
Apple Inc / AAPL	4.98	Prospectus Gross Exp. Ratio:	0.17		
Amazon.com Inc / AMZN	3.10	Avg Exp Ratio Morningstar (%):	0.64		
Alphabet Inc Class A / GOOGL	1.88				
Tesla Inc / TSLA	1.88	12b-1 fees (%):	0.04		
Alphabet Inc Class C / GOOG	1.76	Closed - New Inv:	-		
Meta Platforms Inc Class A / FB	1.64	Closed - All Inv:	-		
NVIDIA Corp / NVDA	1.29	Min Investment:	\$0		
Berkshire Hathaway Inc Class B / BRK.B	1.13	Waiver Amt:	-		
JPMorgan Chase & Co / JPM	1.07	Waiver Exp Date:	-		
% in Top 10 Holdings	24.01	Strategy Inception:	4/29/1994		
# of Holdings	2,817	Share Class Inception:	4/29/1994		

Sector Allocation as of 10/31/2021 Basic Materials: 2.03 Utilities: 2.31 2.85 Energy: Real Estate: 3.60 Cons Defensive: 5.58 Industrials: 8.96 Comm: 9.94 Cons Cyclical: 12.27



% Emerging Mkt: 0.22

Performance Analysis as of 12/31/2021



	OTR	YTD	1 Year	3 Years	5 Years	10 Years	Since	
	QIR	TID	i ital	3 16415	o reals	10 16415	Inception	
CREF Equity Index R3	9.24%	25.52%	25.52%	25.56%	17.75%	16.01%	14.37%	
Russell 1000 Index	9.78%	26.45%	26.45%	26.21%	18.43%	16.54%		
Peer Group*	10.17%	26.94%	26.94%	24.46%	17.18%	15.64%		
Peer Group Rank*	65	66	66	36	38	33	-	
Peer Group Size (funds)*	-	-	1,382	1,244	1,109	822	_	

13.30

13.78

25.39

*Morningstar Peer Group: Large Blend

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CREF Stock R3 Category: Aggressive

F00000VAVP 12/31/2021

Fund Strategy

The investment seeks a favorable long-term rate of return through capital appreciation and investment income. The fund invests at least 80% of its assets in a broadly diversified portfolio of common stocks. The investment adviser typically uses a combination of three different investment strategies to manage the Account-active management, quantitative and indexing-and invests in both domestic and foreign securities to achieve the account's investment objective. The investment adviser manages the Account in segments, each of which may use one of these different investment strategies.

Fund Information		Portf			
		Alpha*:	-1.60	P/E:	-
Strategy Asset (\$ mm):	139,310.71	Beta*:	1.10	P/B:	-
Share Class Assets (\$ mm):			as of date 10/31/2021	SEC Yield (%):	-
Share Class Assets (\$11111).				Turnover:	69.00
Managor:	Hans I Erickson			aso	of date 12/31/2021

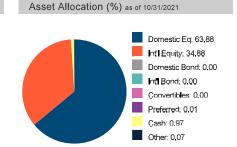
Hans L. Erickson as of date

*Best fit index: Morningstar US Agg Tgt Alloc NR USD

Manager Tenure: 26 Years *3-year statistic: Morningstar US Agg Tgt Alloc NR USD

RISK BUCKET	RISK Range	RISK ()
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75X≤7.75	-
Conservative	3.00X≤5.75	-

Risk Bucket as of 12/31/2021



% Emerging Mkt: 7.00

Scorecard

Manager

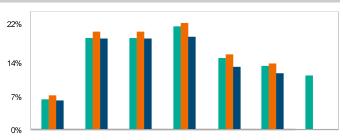
Asset Allocation Strategies	Ticker	Style			Risk / Return			Peer Group		Qual. (2pt	Score
		Risk Level	Sty l e Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	max)	Q4 2021
Aggressive				_							
		0	0	1	0	0	0	1	1	2	5
CREF Stock R3	F00000VAVP	15.65	100.00/ 0.00	99. 74	15.65/ 14.79	99.57/ 103.70	-0.85	16.00	42.00	-	AGG

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
CREF Stock R3	5	5	5	5	5	5	5	5
ONE! SIDEK NO	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG

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Top 10 Holdings(%) as of 10/31/2021		Additional Information	
Microsoft Corp / MSFT	3.65	Prospectus Net Exp. Ratio:	0.24
Apple Inc / AAPL	2.71	Prospectus Gross Exp. Ratio:	0.24
Amazon.com Inc / AMZN	2.12	Avg Exp Ratio Morningstar (%):	0.40
Alphabet Inc Class C / GOOG	1.28		
Alphabet Inc Class A / GOOGL	1.22	12b-1 fees (%):	0.04
Tesla Inc / TSLA	1.06	Closed - New Inv:	-
Meta Platforms Inc Class A / FB	0.99	Closed - All Inv:	-
NVIDIA Corp / NVDA	0.87	Min Investment:	\$0
Bank of America Corp / BAC	0.70	Waiver Amt:	-
Salesforce.com Inc / CRM	0.70	Waiver Exp Date:	-
% in Top 10 Holdings	15.32	Strategy Inception:	7/31/1952
# of Holdings	10,070	Share Class Inception:	7/31/1952

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
CREF Stock R3	6.23%	18.92%	18.92%	21.35%	14.79%	13.15%	11.17%
StyleBenchmark*	7.07%	20.25%	20.25%	22.03%	15.53%	13.66%	
Peer Group**	6.01%	18.82%	18.82%	19.18%	12.97%	11.63%	
Peer Group Rank*	41	45	45	16	14	6	-
Peer Group Size (funds)*	-	-	189	174	159	103	-

*70,79% Russell 3000, 29,21% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Allocation-85%+ Equity

T. Rowe Price Lrg Cp Gr I Category: Large Cap Growth

TRLGX 12/31/2021

Fund Strategy

The investment seeks to provide long-term capital appreciation through investments in common stocks of growth companies. The fund will normally invest at least 80% of its net assets (including any borrowings for investment purposes) in the common stocks of large-cap companies. The advisor defines a large-cap company as one whose market capitalization is larger than the median market capitalization of companies in the Russell 1000® Growth Index, a widely used benchmark of the largest U.S. growth stocks. The fund is non-diversified.

	,					
Fund Information		Portfolio Statistics				
		Alpha*:	-1.23	P/E:	34.34	
Strategy Asset (\$ mm):	24,851.00	Beta*:	0.97	P/B:	7.39	
Share Class Assets (\$ mm):	24.450.00		as of date 9/30/2021	SEC Yield (%):	-	
Office Oldss Assets (\$11111).	24,400.00			Turnover:	18.60	
Manager:	Taymour R. Tamaddon			as	of date 12/31/2021	
		*Best fit index: Morningstar US Large Mid Brd Grt TR USD				
Manager Tenure:	5 Years	*3_vear s	tatistic: Morningstar II	S Large Mid Brd	Grt TR LISD	

Scorecard

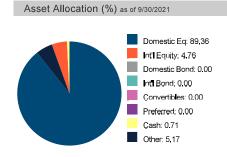
		Style			R	Risk / Return			Peer Group		Score
Active Strategies	Ticker St	Style	Sty l e Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	Qual. (2pt max)	Q4 2021
Large Cap Growth											
T. Rowe Price Lrg Cp		1	1	1	1	1	1	1	1	2	10
Gr I	TRLGX	92.52/ 69.53	8.84	94.0 3	16.38/ 26.00	96.04/ 87.38	0.17	21.00	21.00	-	LCG

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
T. Rowe Price Lrg Cp	10	10	10	10	10	10	10	9
Gr I	LCG	LCG	LCG	LCG	LCG	LCG	LCG	LCG

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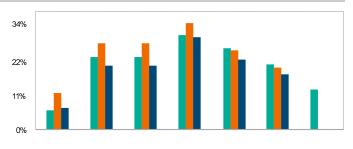
Top 10 Holdings(%) as of 9/30/2021		Additional Information	
Microsoft Corp / MSFT 8.62		Prospectus Net Exp. Ratio:	0.56
Amazon.com Inc / AMZN	8.13	Prospectus Gross Exp. Ratio:	0.56
Alphabet Inc Class A / GOOGL	7.39	Avg Exp Ratio Morningstar (%):	0.98
Facebook Inc Class A / FB	5.86		
Aggregate Miscellaneous Equity	5.17	12b-1 fees (%):	-
Apple Inc / AAPL	4.07	Closed - New Inv:	_
Visa Inc Class A / V	3.37	Closed - All Inv:	_
Intuit Inc / INTU	3.10	Min Investment:	\$500,000
Alphabet Inc Class C / GOOG	2.84	Waiver Amt:	_
Snap Inc Class A / SNAP	2.84	Waiver Exp Date:	-
% in Top 10 Holdings	51.39	Strategy Inception:	10/31/2001
# of Holdings	73	Share Class Inception:	10/31/2001

Sector Allocation as of 9/30/2	2021
Energy:	0.00
Utilities:	0.00
Real Estate:	0.63
Basic Materials:	1.03
Cons Defensive:	1.13
Industrials:	3.68
Financial Services:	6.67
Healthcare:	11.93
Cons Cyclical:	16.71
Comm:	27.80
Technology:	30.42



% Emerging Mkt: 1.99

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ T. Rowe Price Lrg Cp Gr I	6.14%	23.18%	23.18%	30.24%	26.00%	20.84%	12.78%
Russell 1000 Growth Index	11.64%	27.60%	27.60%	34.08%	25.32%	19.79%	
■ Peer Group*	6.91%	20.45%	20.45%	29.54%	22.39%	17.65%	
Peer Group Rank*	67	44	44	45	14	7	-
Peer Group Size (funds)*	-	-	1,237	1,116	1,012	768	-

*Morningstar Peer Group: Large Growth

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CREF Growth R3 Category: Large Cap Growth

F00000VAVV 12/31/2021

Fund Strategy

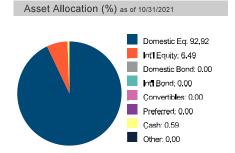
The investment seeks a favorable long-term rate of return, mainly through capital appreciation. The fund invests at least 80% of its assets in common stocks and other equity securities. It invests primarily in large, well-known, established companies. The fund may also invest in smaller, less seasoned companies with growth potential as well as companies in new and emerging areas of the economy. It may also invest in companies in order to benefit from prospective acquisitions, reorganizations, corporate restructurings or other special situations.

Situations.					
Fund Information	Portfolio Statistics				
		Alpha*:	-1.75	P/E:	-
Strategy Asset (\$ mm):	39,852.31	Beta*:	1.00	P/B:	-
Share Class Assets (\$ mm):			as of date 10/31/2021	SEC Yield (%):	-
Ghare Glass Assets (\$11111).				Turnover:	82.00
Manager:	Terrence Kontos			as o	of date 12/31/2021

*Best fit index: Morningstar US Large Mid Brd Grt TR USD

Manager Tenure: 8 Years *3-year statistic: Morningstar US Large Mid Brd Grt TR USD

Sector Allocation as of 10/31/2021 Utilities: 0.00 Eneray: 0.01 Real Estate: 0.05 Basic Materials: 2.25 Cons Defensive: 4.11 Industrials: 4.97 Financial Services: 8.90 Healthcare: 10.10 Comm 15.01 Cons Cyclical: 1938 Technology: 35.21



% Emerging Mkt: 0.83

Scorecard

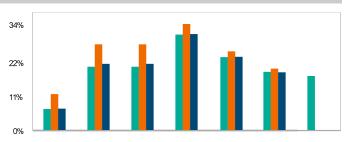
		٤	Style		Risk / Return			Peer Group		Qual. (2pt	Score
Active Strategies	Ticker	Style	Sty l e Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Large Cap Growth	Large Cap Growth										
		1	1	1	0	0	0	1	0	2	6
CREF Growth R3	F00000VAVV	98.57/ 86.84	5.30	98. 55	16.75/ 23.47	95.06/ 99.95	-0.91	40.00	56.00	-	LCG

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
CREF Growth R3	6	6	6	7	7	7	7	7
CITEL GIOWIITIO	LCG	LCG	LCG	LCG	LCG	LCG	LCG	LCG

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 10/31/2021		Additional Information	
Microsoft Corp / MSFT	9.51	Prospectus Net Exp. Ratio:	0.19
Amazon.com Inc / AMZN	6.53	Prospectus Gross Exp. Ratio:	0.19
Apple Inc / AAPL	4.13	Avg Exp Ratio Morningstar (%):	0.80
Meta Platforms Inc Class A / FB	4.00		
Alphabet Inc Class A / GOOGL	3.47	12b-1 fees (%):	0.04
Tesla Inc / TSLA	3.19	Closed - New Inv:	-
NVIDIA Corp / NVDA	3.05	Closed - All Inv:	-
Salesforce.com Inc / CRM	3.04	Min Investment:	\$0
iShares Russell 1000 Growth ETF / IWF	2.93	Waiver Amt:	-
Alphabet Inc Class C / GOOG	2.74	Waiver Exp Date:	-
% in Top 10 Holdings	42.59	Strategy Inception:	4/29/1994
# of Holdings	125	Share Class Inception:	4/29/1994

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
CREF Growth R3	6.86%	20.43%	20.43%	30.69%	23.47%	18.78%	17.43%
Russell 1000 Growth Index	11.64%	27.60%	27.60%	34.08%	25.32%	19.79%	
Peer Group*	6.96%	21.36%	21.36%	30.89%	23.58%	18.61%	
Peer Group Rank*	62	61	61	39	39	30	-
Peer Group Size (funds)*	_	_	1.237	1.116	1.012	768	_

*Morningstar Peer Group: Large Growth

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Vanguard Mid Cap Index InstitutionalPlus Category: Mid Cap Blend

VMCPX 12/31/2021

Fund Strategy

The investment seeks to track the performance of the CRSP US Mid Cap Index that measures the investment return of mid-capitalization stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Mid Cap Index, a broadly diversified index of stocks of mid-size U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Fund Information		Portfolio Statistics					
		Alpha*:	0.44	P/E:	22.48		
Strategy Asset (\$ mm):	165,030.00	Beta*:	0.99	P/B:	3.45		
Share Class Assets (\$ mm):	17.139.00		as of date 11/30/2021	SEC Yield (%):	1.11		
Strate Class Assets (\$11111).	17,139.00			Turnover:	26.00		
Manager:	Donald M. Butler			as	of date 12/31/2021		
		*Best fit i	ndex: Morningstar US I	Vlid Cap TR USD			
Manager Tenure:	24 Years	*3-year s	tatistic: Morningstar US	Mid Cap TR US	SD		

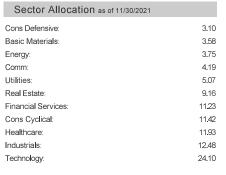
Scorecard

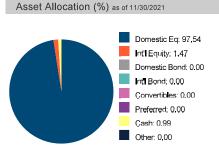
			Style		e		Pee		Qual. (2pt	Score	
Passive Strategies	Ticker	Style	Sty l e Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Ratio Rank	max)	Q4 2021
Mid Cap Blend											
Manager of Mid One		1	0	1	1	1	1	1	1	2	9
Vanguard Mid Cap Index	VMCPX	-13.10/ 8.04	7.16	99.6 0	1.41	18.00	3.00	1.00	1.00	-	MCB-P

Passive Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Vanguard Mid Cap	9	10	9	9	9	9	10	10
Index	MCB-P	MCB-P	MCB-P	MCB-P	MCB-P	MCB-P	MCB-P	MCB-P

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

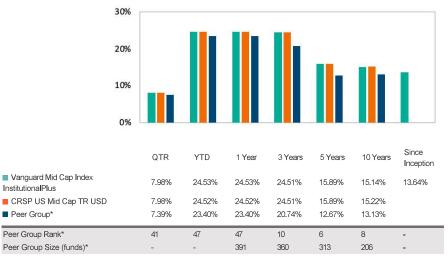
Top 10 Holdings(%) as of 11/30/2021		Additional Information	
Marvell Technology Inc / MRVL	0.81	Prospectus Net Exp. Ratio:	0.03
Xilinx Inc / XLNX	0.79	Prospectus Gross Exp. Ratio:	0.03
DexCom Inc / DXCM	0.76	Avg Exp Ratio Morningstar (%):	0.94
Synopsys Inc / SNPS	0.73		
Palo Alto Networks Inc / PANW	0.70	12b-1 fees (%):	-
IQVIA Holdings Inc / IQV	0.69	Closed - New Inv:	-
MSCI Inc / MSCI	0.69	Closed - All Inv:	-
Cadence Design Systems Inc / CDNS	0.69	Min Investment:	\$100,000,000
Amphenol Corp Class A / APH	0.67	Waiver Amt:	-
Digital Realty Trust Inc / DLR	0.66	Waiver Exp Date:	-
% in Top 10 Holdings	7.19	Strategy Inception:	5/21/1998
# of Holdings	387	Share Class Inception:	12/15/2010





% Emerging Mkt: 0.00

Performance Analysis as of 12/31/2021



*Morningstar Peer Group: Mid-Cap Blend

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TIAA-CREF Small-Cap Blend Idx Inst Category: Small Cap Blend

TISBX 12/31/2021

Fund Strategy

The investment seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of equity securities in smaller domestic companies based on a market index. Under normal circumstances, the fund invests at least 80% of its assets in equity securities included in its benchmark index, the Russell 2000® Index. A "small-cap" equity security is a security within the capitalization range of the companies included in the Russell 2000 Index at the time of purchase. The Russell 2000 Index measures the performance of the small-cap segment of the U.S. equity universe.

Alpha*

Beta*

Portfolio Statistics

*Best fit index: Russell 2000 TR USD

*3-year statistic: Russell 2000 TR USD

0.10 P/F

1.00 P/B:

Turnover:

as of date 10/31/2021 SEC Yield (%)

16.34

2.47

33.00

as of date 12/31/2021

Fund	Inform	ation

Strategy Asset (\$ mm): 4,510.00

Share Class Assets (\$ mm): 3,440.00

Manager: Philip James(Jim) Campagna

Manager Tenure: 16 Years

Scorecard

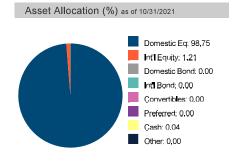
			Sty	/le			Pee		Qual. (2pt	Score	
Passive Strategies	Ticker	Style	Sty l e Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Ratio Rank	max)	Q4 2021
Small Cap Blend											
TIAA-CREF Small-		1	1	1	1	1	1	1	1	2	10
Cap Blend Idx Inst	TISBX	3.03/ -99.15	1.46	100. 00	0.09	19.00	12.00	15.00	15.00	-	SCB-P

Passive Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Small-	10	10	10	10	10	10	10	10
Cap Blend Idx Inst	SCB-P	SCB-P	SCB-P	SCB-P	SCB-P	SCB-P	SCB-P	SCB-P

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

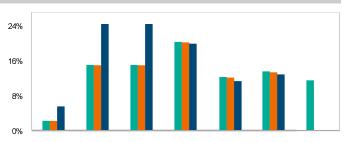
Top 10 Holdings(%) as of 10/31/2021		Additional Information	
AMC Entertainment Holdings Inc Class A / AMC	0.60	Prospectus Net Exp. Ratio:	0.06
iShares Russell 2000 ETF / IWM	0.54	Prospectus Gross Exp. Ratio:	0.06
Asana Inc Ordinary Shares - Class A / ASAN	0.33	Avg Exp Ratio Morningstar (%):	1.01
Crocs Inc / CROX	0.33		
Ovintiv Inc / OVV	0.32	12b-1 fees (%):	-
Tetra Tech Inc / TTEK	0.31	Closed - New Inv:	-
Lattice Semiconductor Corp / LSCC	0.31	Closed - All Inv:	_
Intellia Therapeutics Inc / NTLA	0.30	Min Investment:	\$10,000,000
Avis Budget Group Inc / CAR	0.28	Waiver Amt:	_
Saia Inc / SAIA	0.27	Waiver Exp Date:	_
% in Top 10 Holdings	3.58	Strategy Inception:	10/1/2002
# of Holdings	2,030	Share Class Inception:	10/1/2002

Sector Allocation as of 10/31/2021 Utilities: 2.49 Basic Materials: 3.62 Cons Defensive: 3.64 Comm: 3.83 4.58 Energy: Real Estate: 8.34 Cons Cyclical: 10.66 Technology: 14.44 Financial Services: 14.48 Industrials 14 58 Healthcare: 19.34



% Emerging Mkt: 0.33

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	
■ TIAA-CREF Small-Cap Blend ldx Inst	2.17%	14.89%	14.89%	20.11%	12.15%	13.42%	11.38%	
Russell 2000 Index	2.14%	14.82%	14.82%	20.02%	12.02%	13.23%		
Peer Group*	5.47%	24.19%	24.19%	19.73%	11.22%	12.74%		
Peer Group Rank*	89	91	91	46	34	33	-	
Peer Group Size (funds)*	-	-	630	596	528	352	-	

*Morningstar Peer Group: Small Blend

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TIAA-CREF Quant Small-Cap Equity Instl Category: Small Cap Blend

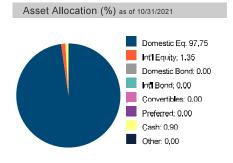
TISEX 12/31/2021

Fund Strategy

The investment seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of smaller domestic companies. Under normal circumstances, the fund invests at least 80% of its assets in small-cap equity security is a security within the capitalization range of the companies included in the fund's benchmark index, the Russell 2000® Index, at the time of purchase. It invests primarily in equity securities of smaller domestic companies across a wide range of sectors, growth rates and valuations.

Fund Information		Portfo	olio Statistics		
		Alpha*:	0.65	P/E:	15.07
Strategy Asset (\$ mm):	3,039.00	Beta*:	1.01	P/B:	2.57
Share Class Assets (\$ mm):	1.558.00		as of date 10/31/2021	SEC Yield (%): -
Share Class Assets (\$ mm):	1,000.00			Turnover:	64.00
Manager:	Pei Chen			as	of date 12/31/2021
		*Best fit in	dex: Momingstar US S	mall Cap Ext T	R USD
Manager Tenure:	6 Years	*3-year sta	atistic: Morningstar US	Small Cap Ext	TR USD

Sector Allocation as of 10/31/2021 Utilities: 2.85 Basic Materials: 4.09 4.38 Cons Defensive: 4.72 5.49 Energy: Real Estate: 7.73 Cons Cyclical: 9.77 Industrials: 13.86 Technology: 14.00 Financial Services: 14.29 Healthcare: 18.83



% Emerging Mkt: 0.48

Scorecard

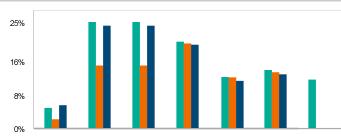
		Style			Risk / Return			Pee	r Group	Qual. (2pt	Score
Active Strategies Ticke	Ticker	Style	Sty l e Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Small Cap Blend											
TIAA OBEE Ougast		1	1	1	1	1	1	1	0	2	9
TIAA-CREF Quant Small-Cap Equity	-19.44/ -90.62	8.16	98.1 4	21.20/ 12.09	99.86/ 99.55	0.02	39.00	51.00	-	SCB	

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Quant	9	7	7	7	7	7	7	7
Small-Cap Equity	SCB	SCB	SCB	SCB	SCB	SCB	SCB	SCB

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Top 10 Holdings(%) as of 10/31/2021		Additional Information			
BJ's Wholesale Club Holdings Inc / BJ	0.87	Prospectus Net Exp. Ratio:	0.43		
Crocs Inc / CROX	0.76	Prospectus Gross Exp. Ratio:	0.43		
Digital Turbine Inc / APPS	0.71	Avg Exp Ratio Morningstar (%):	1.01		
National Storage Affiliates Trust / NSA	0.70				
Lattice Semiconductor Corp / LSCC	0.67	12b-1 fees (%):	-		
PS Business Parks Inc / PSB	0.67	Closed - New Inv:	-		
Ovintiv Inc / OVV	0.66	Closed - All Inv:	-		
Comfort Systems USA Inc / FIX	0.66	Min Investment:	\$2,000,000		
Trinet Group Inc / TNET	0.61	Waiver Amt:	-		
United Community Banks Inc / UCBI	0.61	Waiver Exp Date:	-		
% in Top 10 Holdings	6.93	Strategy Inception:	10/1/2002		
# of Holdings	445	Share Class Inception:	10/1/2002		

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ TIAA-CREF Quant Small-Cap Equity Instl	4.83%	25.06%	25.06%	20.45%	12.09%	13.76%	11.49%
Russell 2000 Index	2.14%	14.82%	14.82%	20.02%	12.02%	13.23%	
■ Peer Group*	5.47%	24.19%	24.19%	19.73%	11.22%	12.74%	
Peer Group Rank*	67	46	46	42	36	21	-
Peer Group Size (funds)*	-	-	630	596	528	352	-

*Morningstar Peer Group: Small Blend

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Vanguard Total Intl Stock Index I Category: International Equity

VTSNX 12/31/2021

Fund Strategy

The investment seeks to track the performance of a benchmark index that measures the investment return of stocks issued by companies located in developed and emerging markets, excluding the United States. The fund employs an indexing investment approach designed to track the performance of the FTSE Global All Cap ex US Index, a float-adjusted market-capitalization-weighted index designed to measure equity market performance of companies located in developed and emerging markets, excluding the United States. It invests all, or substantially all, of its assets in the common stocks included in its target index.

Fund Information		Portfolio Statistics				
		Alpha*:	-0.39	P/E:	14.16	
Strategy Asset (\$ mm):	404,742.00	Beta*:	1.01	P/B:	1.70	
Shara Class Assats (\$ mm):	41.331.00		as of date 11/30/2021	SEC Yield (%):	-	
Share Class Assets (\$ mm):	41,351.00			Turnover:	8.00	
Manager:	Michael Perre			as	of date 12/31/2021	
	*Best fit index: Morningstar Gbl Mkts xUS GR t					
Manager Tenure:	13 Years	*3-year statistic: Morningstar Gbl Mkts xUS GR USD				

Scorecard

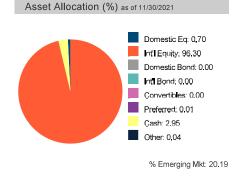
			Style				Peer Group				Score
Passive Strategies	Ticker	Style	Sty l e Drift	R ²	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Ratio Rank	Qual. (2pt max)	Q4 2021
International Equity											
Vanguard Total Intl		1	1	1	1	0	1	1	1	2	9
Stock Index I	VTSNX	-5.85/ 37.53	6.35	98.9 0	1.85	93.00	23.00	6.00	17.00	-	IE-P

Passive Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Vanguard Total Intl	9	9	9	9	9	9	9	10
Stock Index I	IE-P	IE-P	IE-P	IE-P	IE-P	IE-P	IE-P	IE-P

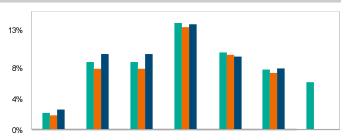
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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
	164	December in Net Fire Detice	0.08
Taiwan Semiconductor Manufacturing Co Ltd / 2330	1.64	Prospectus Net Exp. Ratio:	
Nestle SA / NESN	1.16	Prospectus Gross Exp. Ratio:	0.08
Tencent Holdings Ltd / 00700	1.12	Avg Exp Ratio Morningstar (%):	0.92
ASML Holding NV / ASML	1.00		
Samsung Electronics Co Ltd / 005930	0.90	12b-1 fees (%):	-
Roche Holding AG / ROG	0.86	Closed - New Inv:	-
Alibaba Group Holding Ltd Ordinary Shares / 09988	0.73	Closed - All Inv:	-
Toyota Motor Corp / 7203	0.70	Min Investment:	\$5,000,000
LVMH Moet Hennessy Louis Vuitton SE / MC	0.62	Waiver Amt:	-
Shopify Inc Registered Shs -A- Subord Vtg / SHOP	0.55	Waiver Exp Date:	-
% in Top 10 Holdings	9.27	Strategy Inception:	4/29/1996
# of Holdings	7,883	Share Class Inception:	11/29/2010





Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
Vanguard Total Intl Stock Index I	2.12%	8.68%	8.68%	13.71%	9.93%	7.71%	6.08%
MSCI ACWI ex USA NR	1.82%	7.82%	7.82%	13.18%	9.61%	7.28%	
Peer Group*	2.55%	9.72%	9.72%	13.56%	9.38%	7.85%	
Peer Group Rank*	70	68	68	46	36	56	-
Peer Group Size (funds)*	_	_	767	698	601	409	_

*Morningstar Peer Group: Foreign Large Blend

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American Funds Europacific Growth R6 Category: International Large Cap Growth 1

RERGX 12/31/2021

Fund Strategy

The investment seeks long-term growth of capital. The fund invests primarily in common stocks of issuers in Europe and the Pacific Basin that the investment adviser believes have the potential for growth. Growth stocks are stocks that the investment adviser believes have the potential for above-average capital appreciation. It normally will invest at least 80% of its net assets in securities of issuers in Europe and the Pacific Basin. The fund may invest a portion of its assets in common stocks and other securities of companies in emerging markets.

Fund Information		Portfolio Statistics				
		Alpha*:	3.25	P/E:	20.96	
Strategy Asset (\$ mm):	186,461.00	Beta*:	1.02	P/B:	2.82	
Share Class Assets (\$ mm):	88.968.00		as of date 9/30/2021	SEC Yield (%):	0.44	
Oriale Class Assets (\$ IIIII).	00,300.00			Turnover:	32.00	
Manager:	Carl M. Kawaja			as	of date 12/31/2021	
		*Best fit index: Morningstar Gbl Mkts xUS GR USD				
Manager Tenure:	21 Years	*3-year statistic: Morningstar Gbl Mkts xUS GR USD				

Scorecard

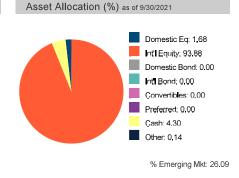
		Style			F	Risk / Return			Peer Group		Score
Active Strategies	Ticker	Style	Style Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	Qual. (2pt - max)	Q4 2021
International Large Car	International Large Cap Growth										
American Funds		0	1	1	0	0	0	1	1	2	6
Europacific Growt	RERGX	45.52/ -3.52	10.47	86.8 6	15.70/ 12.87	108.21/ 124.46	-0.24	32.00	31.00	-	ILCG

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
American Funds	6	9	10	10	10	7	7	7
Europacific Growt	ILCG	ILCG	ILCG	ILCG	ILCG	ILCG	ILCG	ILCG

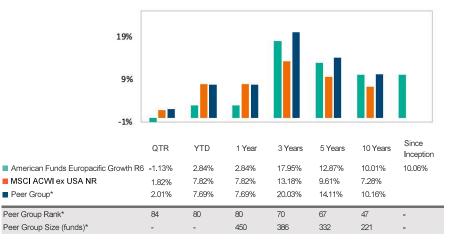
The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 9/30/2021		Additional Information			
ASML Holding NV / ASML	3.68	Prospectus Net Exp. Ratio:	0.46		
Reliance Industries Ltd / RELIANCE	2.66	Prospectus Gross Exp. Ratio:	0.46		
Sea Ltd ADR / SE	2.47	Avg Exp Ratio Morningstar (%):	1.04		
MercadoLibre Inc / MELI	2.32				
Taiwan Semiconductor Manufacturing Co Ltd / 2330	2.25	12b-1 fees (%):	-		
AIA Group Ltd / 01299	2.01	Closed - New Inv:	-		
LVMH Moet Hennessy Louis Vuitton SE / MC	1.92	Closed - All Inv:	-		
Airbus SE / AIR	1.78	Min Investment:	\$250		
WuXi Biologics (Cayman) Inc / 02269	1.52	Waiver Amt:	-		
HDFC Bank Ltd / HDFCBANK	1.51	Waiver Exp Date:	-		
% in Top 10 Holdings	22.13	Strategy Inception:	4/16/1984		
# of Holdings	388	Share Class Inception:	5/1/2009		





Performance Analysis as of 12/31/2021



*Morningstar Peer Group: Foreign Large Growth

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Contact (215) 557-7622 for most recent month end performance.

1. Report system default for factsheets use Morningstar categories, which may differ from category and benchmark identified in prospectus.

Victory RS Global R6 Category: Global Equity

RGGRX 12/31/2021

Fund Strategy

The investment seeks to provide long-term capital appreciation. The fund normally invests at least 80% of the value of its net assets in common stocks, preferred stocks, and other securities convertible into common or preferred stock of publicly traded companies wherever they may be in the world. Under normal circumstances, the fund will invest in companies located in at least three different countries including the United States. It will normally invest 40% or more of its total assets in securities of non-U.S. companies.

Fund Information	Portfolio Statistics				
		Alpha*:	-	P/E:	18.94
Strategy Asset (\$ mm):	350.00	Beta*:	-	P/B:	3.52
Share Class Assets (\$ mm):	100.00	a	s of date 9/30/2021	SEC Yield (%):	0.90
Share Class Assets (\$11111).	100.00			Turnover:	-
Manager:	U-Wen Kok			as of	date 12/31/2021
		*Best fit index	C		
Manager Tenure:	9 Years	*3-year statis	stic:		

Scorecard

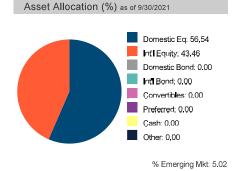
		Style			Risk / Return			Peer Group		Qual. (2pt	Score
Active Strategies	Ticker	Style	Sty l e Drift	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	max)	Q4 2021
Global Equity	Global Equity										
		1	1	1	1	1	1	1	1	2	10
Victory RS Global R6	RGGRX	5.10/ 78.53	11.04	98.0 1	13.95/ 17.39	104.87/ 89.95	1.35	24.00	10.00	-	GE

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
Victory RS Global R6	10	10	10	10	10	10	10	10
	GE	GE	GE	GE	GE	GE	GE	GE

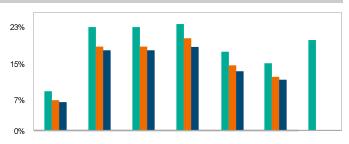
The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 9/30/2021		Additional Information	
Apple Inc / AAPL	4.88	Prospectus Net Exp. Ratio:	0.57
Microsoft Corp / MSFT	4.53	Prospectus Gross Exp. Ratio:	0.98
Alphabet Inc Class C / GOOG	2.75	Avg Exp Ratio Morningstar (%):	0.92
Amazon.com Inc / AMZN	2.60		
Facebook Inc Class A / FB	2.30	12b-1 fees (%):	-
NVIDIA Corp / NVDA	2.04	Closed - New Inv:	-
McDonald's Corp / MCD	1.90	Closed - All Inv:	-
Johnson & Johnson / JNJ	1.78	Min Investment:	\$0
Texas Instruments Inc / TXN	1.71	Waiver Amt:	0.41
Cisco Systems Inc / CSCO	1.71	Waiver Exp Date:	4/30/2022
% in Top 10 Holdings	26.19	Strategy Inception:	5/16/2011
# of Holdings	95	Share Class Inception:	5/2/2019





Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ Victory RS Global R6	8.66%	22.84%	22.84%	23.52%	17.39%	14.85%	19.97%
MSCI ACWI NR	6.68%	18.54%	18.54%	20.38%	14.40%	11.85%	
Peer Group*	6.27%	17.72%	17.72%	18.45%	13.10%	11.21%	
Peer Group Rank*	19	13	13	4	3	1	-
Peer Group Size (funds)*	-	-	327	283	236	145	-

*Morningstar Peer Group: World Large-Stock Blend

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CREF Global Equities R3 Category: Global Equity

F00000VAVS 12/31/2021

Fund Strategy

The investment seeks a favorable long-term rate of return through capital appreciation and income. Under normal circumstances, the fund invests at least 80% of its assets in equity securities of foreign and domestic companies. Typically, approximately 50% of the Account is invested in foreign securities (including foreign emerging market issuers), and approximately 50% in domestic securities, as TCIM deems appropriate. Normally, the fund will be invested in at least three different countries, one of which will be the United States, although it will usually be more diversified.

it will usually be more diversified.						
Fund Information		Portfolio Statistics				
		A l pha*:	0.72	P/E:	-	
Strategy Asset (\$ mm):	28,746.61	Beta*:	1.04	P/B:	-	
Share Class Assets (\$ mm):			as of date 10/31/2021	SEC Yield (%	b): -	
Chare Glace / Goots (\$ 11111).				Turnover:	63.00	
Manager:	John N. Tribolet			а	s of date 12/31/2021	
		*Best fit index: MSCI ACWI NR USD *3-year statistic: MSCI ACWI NR USD				
Manager Tenure:	16 Years					

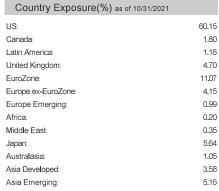
Scorecard

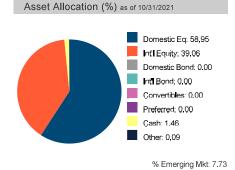
			Style			Risk / Return			Peer Group		Score
Active Strategies	Ticker	Style	Style R2 Risk / Return Up / Down		Info Ratio	Return Rank	Info Ratio Rank	Qual. (2pt max)	Q4 2021		
Global Equity											
CREF Global		1	1	1	1	0	1	1	1	2	9
Equities R3	F00000VAVS	25.29/ 39.85	16.28	98. 95	15.75/ 14.78	104.92/ 105.68	0.21	45.00	36.00	-	GE

Active Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
CREF Global	9	10	10	8	7	8	6	5
Equities R3	GE	GE	GE	GE	GE	GE	GE	GE

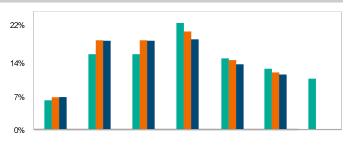
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Top 10 Holdings(%) as of 10/31/2021		Additional Information	
Microsoft Corp / MSFT	3.64	Prospectus Net Exp. Ratio:	0.22
Apple Inc / AAPL	2.64	Prospectus Gross Exp. Ratio:	0.22
Amazon.com Inc / AMZN	2.11	Avg Exp Ratio Morningstar (%):	0.81
Alphabet Inc Class C / GOOG	1.45		
Salesforce.com Inc / CRM	1.41	12b-1 fees (%):	0.04
Tencent Holdings Ltd / 00700	1.14	Closed - New Inv:	-
Alphabet Inc Class A / GOOGL	1.12	Closed - All Inv:	-
Taiwan Semiconductor Manufacturing Co Ltd / 2330	1.07	Min Investment:	\$0
S+p500 Emini Fut Dec21 Xcme 20211217	1.07	Waiver Amt:	-
Tesla Inc / TSLA	0.99	Waiver Exp Date:	-
% in Top 10 Holdings	16.66	Strategy Inception:	5/1/1992
# of Holdings	2,541	Share Class Inception:	5/1/1992





Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ CREF Global Equities R3	6.06%	15.65%	15.65%	22.12%	14.78%	12.60%	10.56%
■ MSCI ACWI NR	6.68%	18.54%	18.54%	20.38%	14.40%	11.85%	
■ Peer Group*	6.73%	18.42%	18.42%	18.73%	13.56%	11.40%	
Peer Group Rank*	72	77	77	10	23	24	-
Peer Group Size (funds)*	_	_	327	283	236	145	_

*Morningstar Peer Group: World Large-Stock Blend

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TIAA-CREF Lifecycle Index Ret Inc Instl Category: Moderate Conservative

TRILX 12/31/2021

Fund Strategy

The investment seeks high total return over time primarily through income, with a secondary emphasis on capital appreciation. The fund is a "fund of funds" that invests in Class W shares of other funds of the Trust and potentially in other investment pools or investment products. It has a policy of investing at least 80% of its assets in underlying funds that are managed to seek investment returns that track particular market indices. Advisors currently expects to allocate approximately 40% of the fund's assets to equity underlying funds and 60% of its assets to fixed-income underlying funds.

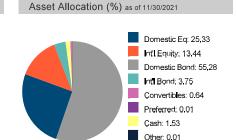
assets to fixed-fixed-fixed underlying furios.								
Fund Information			Portfolio Statistics					
		Alpha*:	0.02	P/E:	18.88			
Strategy Asset (\$ mm):	652.00	Beta*:	1.00	P/B:	2.73			
Share Class Assets (\$ mm):	576.00		as of date 11/30/2021	SEC Yield (%):	1.97			
Share Class Assets (\$11111).	370.00			Turnover:	23.00			
Manager:	John Cunniff			as c	f date 12/31/2021			

*Best fit index: Morningstar US Mod Con Tgt Alloc NR USD

Manager Tenure: 12 Years *3-year statistic: Morningstar US Mod Con Tgt Alloc NR USD

Risk Bucket as of 12/31/2021

Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75X≤7.75	6.35
Conservative	3.00X≤5.75	_



% Emerging Mkt: 7.81

Scorecard

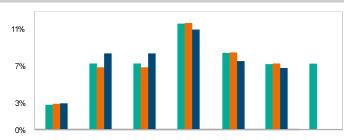
			Style		Risk / Return		Peer Group			Score Components		Score	
Asset Allocation Strategies	Ticker	Risk Level	Sty l e Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Moderate Conservative													
TIAA-CREF Lifecycle		1	1	1	1	1	0	1	1	2			9
Index Ret Inc InstI	TRILX	6.35	39.89/ 60.11	99. 70	6.35/ 8.30	99.17/ 98.60	-0.09	7.00	4.00	-	9	9.5	MC

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Lifecycle	9	9	9	9	9	9	9	9
Index Ret Inc InstI	MC	MC	MC	MC	MC	MC	MC	MC

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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
TIAA-CREF Bond Index W / TBIWX	40.34	Prospectus Net Exp. Ratio:	0.10
TIAA-CREF Equity Index W / TEQWX	25.69	Prospectus Gross Exp. Ratio:	0.22
TIAA-CREF Inflation Link Bd W / TIIWX	10.07	Avg Exp Ratio Morningstar (%):	0.72
TIAA-CREF Short-Term Bond Index W / TTBWX	10.05		
TIAA-CREF International Eq Idx W / TCIWX	9.37	12b-1 fees (%):	-
TIAA-CREF Emerging Markets Eq Idx W / TENWX	4.37	Closed - New Inv:	-
-	-	Closed - All Inv:	-
-	-	Min Investment:	\$10,000,000
-	-	Waiver Amt:	0.12
-	-	Waiver Exp Date:	9/30/2022
% in Top 10 Holdings	99.89	Strategy Inception:	9/30/2009
# of Holdings	7	Share Class Inception:	9/30/2009

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ TIAA-CREF Lifecycle Index Ret Inc InstI	2.67%	7.14%	7.14%	11.47%	8.30%	7.08%	7.13%
■ StyleBenchmark*	2.78%	6.74%	6.74%	11.53%	8.34%	7.14%	
Peer Group**	2.82%	8.24%	8.24%	10.82%	7.41%	6.66%	
Peer Group Rank*	54	67	67	34	23	33	-
Peer Group Size (funds)*	-	-	503	465	424	283	-

*4.39% Merrill Lynch 3-Month T-Bill, 55.72% BB Aggregate Bond, 27.51% Russell 3000, 12.38% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Allocation-30% to 50% Equity

TIAA-CREF Lifecycle Index 2010 Instl Category: Moderate Conservative

TLTIX 12/31/2021

Fund Strategy

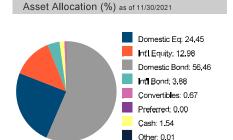
The investment seeks high total return over time through a combination of capital appreciation and income. The fund is a "fund of funds" that invests in Class W shares of other funds of the Trust and potentially in other investment pools or investment products. It has a policy of investing at least 80% of its assets (net assets, plus the amount of any borrowings for investment purposes) in underlying funds that are managed to seek investment returns that track particular market indices. Advisors currently expects to allocate approximately 39.00% of the fund's assets to equity underlying funds and 61.00% of its assets to fixed-income underlying funds.

Fund Information			Portfolio Statistics				
		Alpha*:	-0.05	P/E:	18.88		
Strategy Asset (\$ mm):	706.00	Beta*:	1.00	P/B:	2.73		
Share Class Assets (\$ mm):	585.00		as of date 11/30/2021	SEC Yield (%	o): -		
Onare Olass Assets (\$1111).	000.00			Turnover:	28.00		
Manager:	John Cunniff			á	as of date 12/31/2021		
	*Best fit index: Morningstar US Mod Con Tgt Alloc NR USD						

Manager Tenure: 12 Years *3-year statistic: Morningstar US Mod Con Tgt Alloc NR USD

Risk Bucket as of 12/31/2021

Risk Bucket	Risk Range	Risk (X
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	6.45
Conservative	3.00X≤5.75	-



% Emerging Mkt: 7.80

Scorecard

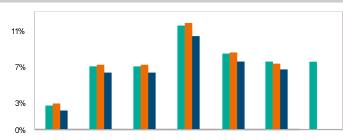
			Style		Risk / Return		Peer Group			Score Components		Score	
Asset Allocation Strategies	Ticker	Risk Level	Sty l e Diversity	R²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Moderate Conservative													
TIAA-CREF Lifecycle		1	1	1	1	1	0	1	1	2			9
Index 2010 InstI	TLTIX	6.45	42.38/ 57.62	99. 76	6.45/ 8.36	97.48/ 95.94	-0.28	8.00	4.00	-	9	9.5	MC

		37.02 70	0.50	7.04				
Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Lifecycle	9	9	9	9	9	9	9	9
Index 2010 InstI	MC	MC	MC	MC	MC	MC	MC	MC

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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
TIAA-CREF Bond Index W / TBIWX	40.33	Prospectus Net Exp. Ratio:	0.10
TIAA-CREF Equity Index W / TEQWX	24.80	Prospectus Gross Exp. Ratio:	0.22
TIAA-CREF Short-Term Bond Index W / TTBWX	11.44	Avg Exp Ratio Morningstar (%):	0.47
TIAA-CREF Inflation Link Bd W / TIIWX	10.06		
TIAA-CREF International Eq Idx W / TCIWX	9.05	12b-1 fees (%):	-
TIAA-CREF Emerging Markets Eq Idx W / TENWX	4.22	Closed - New Inv:	-
-	-	Closed - All Inv:	-
-	-	Min Investment:	\$10,000,000
-	-	Waiver Amt:	0.12
-	-	Waiver Exp Date:	9/30/2022
% in Top 10 Holdings	99.89	Strategy Inception:	9/30/2009
# of Holdings	7	Share Class Inception:	9/30/2009

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ TIAA-CREF Lifecycle Index 2010 InstI	2.62%	6.95%	6.95%	11.44%	8.36%	7.47%	7.46%
StyleBenchmark*	2.86%	7.11%	7.11%	11.71%	8.47%	7.25%	
Peer Group**	2.07%	6.26%	6.26%	10.26%	7.46%	6.61%	
Peer Group Rank*	18	46	46	13	4	10	-
Peer Group Size (funds)*	-	-	120	115	77	52	-

*6.79% Merrill Lynch 3-Month T-Bill, 50.83% BB Aggregate Bond, 27.97% Russell 3000, 14.41% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2000-2010

TIAA-CREF Lifecycle Index 2015 Instl Category: Moderate Conservative

TLFIX 12/31/2021

Fund Strategy

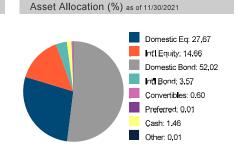
The investment seeks high total return over time through a combination of capital appreciation and income. The fund is a "fund of funds" that invests in Class W shares of other funds of the Trust and potentially in other investment pools or investment products. It has a policy of investing at least 80% of its assets (net assets, plus the amount of any borrowings for investment purposes) in underlying funds that are managed to seek investment returns that track particular market indices. Advisors currently expects to allocate approximately 44.00% of the fund's assets to equity underlying funds and 56.00% of its assets to fixed-income underlying funds.

rund's assets to equity underlying runds	and 56.00% or its assets to	lixea-incom	ie undenying lunds.				
Fund Information			Portfolio Statistics				
		Alpha*:	-0.33	P/E:	18.88		
Strategy Asset (\$ mm):	1,250.00	Beta*:	1.11	P/B:	2.73		
Share Class Assets (\$ mm):	1.035.00		as of date 11/30/2021	SEC Yield (%): -		
Oriale Olass Assets (\$ IIIII).	1,000.00			Tumover:	26.00		
Manager:	John Cunniff			a	as of date 12/31/2021		
			*Best fit index: Momingstar US Mod Con Tgt Alloc NR USD				

12 Years *3-year statistic: Morningstar US Mod Con Tgt Alloc NR USD

Risk Bucket as of 12/31/2021

Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	7.14
Conservative	3.00X≤5.75	-



% Emerging Mkt: 7.79

Manager Tenure: Scorecard

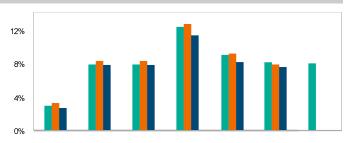
	Style			Risk / Return			Peer Group			Score Components		Score	
Asset Allocation Strategies	Ticker	KISK	Sty l e Diversity	R²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Moderate Conservative													
TIAA-CREF Lifecycle		1	1	1	1	1	0	1	1	2			9
Index 2015 InstI	TLFIX	7.14	47.49/ 52.51	99. 85	7.14/ 8.99	97.22/ 95.81	-0.35	4.00	7.00	-	9	9.5	MC

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Lifecycle	9	9	9	9	9	9	9	9
Index 2015 InstI	MC	MC	MC	MC	MC	MC	MC	MC

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information			
TIAA-CREF Bond Index W / TBIWX	39.67	Prospectus Net Exp. Ratio:	0.10		
TIAA-CREF Equity Index W / TEQWX	28.06	Prospectus Gross Exp. Ratio:	0.20		
TIAA-CREF International Eq Idx W / TCIWX	10.22	Avg Exp Ratio Morningstar (%):			
TIAA-CREF Inflation Link Bd W / TIIWX	8.62				
TIAA-CREF Short-Term Bond Index W / TTBWX	8.61	12b-1 fees (%):	_		
TIAA-CREF Emerging Markets Eq Idx W / TENWX	4.76	Closed - New Inv:	_		
-	-	Closed - All Inv:	_		
-	-	Min Investment:	\$10,000,000		
-	-	Waiver Amt:	0.10		
-	-	Waiver Exp Date:	9/30/2022		
% in Top 10 Holdings	99.94	Strategy Inception:	9/30/2009		
# of Holdings	7	Share Class Inception:	9/30/2009		

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ TIAA-CREF Lifecycle Index 2015 InstI	2.93%	7.85%	7.85%	12.32%	8.99%	8.10%	7.98%
StyleBenchmark*	3.25%	8.26%	8.26%	12.65%	9.13%	7.84%	
Peer Group**	2.67%	7.79%	7.79%	11.31%	8.12%	7.53%	
Peer Group Rank*	31	48	48	17	6	17	-
Peer Group Size (funds)*	-	-	122	117	88	44	-

*6.30% Merrill Lynch 3-Month T-Bill, 46.21% BB Aggregate Bond, 31.95% Russell 3000, 15.54% MSCI ACWI Index ex USA ND USD
*** Morningstar Peer Group: Target-Date 2015

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TIAA-CREF Lifecycle Index 2020 Instl Category: Moderate

TLWIX 12/31/2021

Fund Strategy

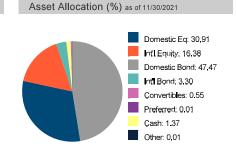
The investment seeks high total return over time through a combination of capital appreciation and income. The fund is a "fund of funds" that invests in Class W shares of other funds of the Trust and potentially in other investment pools or investment products. It has a policy of investing at least 80% of its assets (net assets, plus the amount of any borrowings for investment purposes) in underlying funds that are managed to seek investment returns that track particular market indices. Advisors currently expects to allocate approximately 49.00% of the fund's assets to equity underlying funds and 51.00% of its assets to fixed-income underlying funds.

fund's assets to equity underlying funds and	d 51.00% of its assets to	fixed-incom	ne underlying funds.			
Fund Information		Portf	folio Statistics			
		Alpha*:	-0.04	P/E:	18.88	
Strategy Asset (\$ mm):	3,504.00	Beta*:	0.84	P/B:	2.73	
Share Class Assets (\$ mm):	2.917.00		as of date 11/30/2021	SEC Yield (%):	-	
Oriale Glass Assets (\$1111).	2,317.00			Turnover:	21.00	
Manager:	John Cunniff			as	of date 12/31/2021	
		*Best fit index: Morningstar US Mod Tgt Alloc NR USD				

Manager Tenure: 12 Years *3-year statistic: Morningstar US Mod Tgt Alloc NR USD

Risk Bucket Risk Range Risk (X) Aggressive 13.00X≤15.25 Moderate Aggressive 10.50X≤13.00 Moderate 7.75X≤10.50 7.93 Moderate Conservative 5.75X≤7.75 Conservative 3.00X≤5.75

Risk Bucket as of 12/31/2021



% Emerging Mkt: 7.79

Scorecard

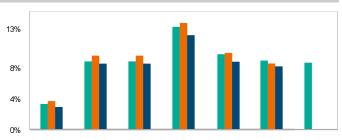
			Style		Ris	Risk / Return			Peer Group		Score Components		Score
Asset Allocation Strategies	Ticker	Risk Level	Sty l e Diversity	R²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Moderate													
TIAA-CREF Lifecycle		1	1	1	1	1	0	1	1	2			9
Index 2020 InstI	TLWIX	7.93	53.69/ 46.31	99. 80	7.93/ 9.67	96.52/ 94.58	-0.31	30.00	9.00	-	9	9.5	MOD

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Lifecycle	9	9	9	9	9	10	10	10
Index 2020 InstI	MOD	MOD	MOD	MOD	MOD	MOD	MOD	MC

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information			
TIAA-CREF Bond Index W / TBIWX	38.74	Prospectus Net Exp. Ratio:	0.10		
TIAA-CREF Equity Index W / TEQWX	31.34	Prospectus Gross Exp. Ratio:	0.19		
TIAA-CREF International Eq Idx W / TCIWX	11.42	Avg Exp Ratio Morningstar (%):			
TIAA-CREF Inflation Link Bd W / TIIWX	6.62				
TIAA-CREF Short-Term Bond Index W / TTBWX	6.61	12b-1 fees (%):	_		
TIAA-CREF Emerging Markets Eq Idx W / TENWX	5.32	Closed - New Inv:	_		
-	-	Closed - All Inv:	_		
-	-	Min Investment:	\$10,000,000		
-	-	Waiver Amt:	0.09		
-	-	Waiver Exp Date:	9/30/2022		
% in Top 10 Holdings	100.05	Strategy Inception:	9/30/2009		
# of Holdings	7	Share Class Inception:	9/30/2009		

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
TIAA-CREF Lifecycle Index 2020 InstI	3.27%	8.75%	8.75%	13.19%	9.67%	8.85%	8.58%
StyleBenchmark*	3.64%	9.48%	9.48%	13.67%	9.83%	8.47%	
Peer Group**	2.88%	8.45%	8.45%	12.11%	8.70%	8.11%	
Peer Group Rank*	27	51	51	27	11	17	-
Peer Group Size (funds)*	-	-	171	160	126	64	-

*5,59% Merrill Lynch 3-Month T-Bill, 40,72% BB Aggregate Bond, 35,66% Russell 3000, 18,03% MSCI ACWI Index ex USA ND USD
*** Morningstar Peer Group: Target-Date 2020

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TIAA-CREF Lifecycle Index 2025 Instl Category: Moderate

TLQIX 12/31/2021

Fund Strategy

The investment seeks high total return over time through a combination of capital appreciation and income. The fund is a "fund of funds" that invests in Class W shares of other funds of the Trust and potentially in other investment pools or investment products. It has a policy of investing at least 80% of its assets (net assets, plus the amount of any borrowings for investment purposes) in underlying funds that are managed to seek investment returns that track particular market indices. Advisors currently expects to allocate approximately 56.40% of the fund's assets to equity underlying funds and 43.60% of its assets to fixed-income underlying funds.

fund's assets to equity underlying funds	and 43.60% of its assets to	tixea-incon	ne underlying tunds.				
Fund Information		Port	folio Statistics				
		Alpha*:	-0.48	P/E:	18.88		
Strategy Asset (\$ mm):	5,681.00	Beta*:	0.96	P/B:	2.73		
Share Class Assets (\$ mm):	4.757.00		as of date 11/30/2021	SEC Yield (%):	-		
Orial o Glado / Gooto (\$11111).	1,707.00			Turnover:	18.00		
Manager: John Cunniff				as of	date 12/31/2021		
			*Best fit index: Morningstar US Mod Tgt Alloc NR USD				

*3-year statistic: Morningstar US Mod Tgt Alloc NR USD

Manager Tenure:
Scorecard

Asset Allocation			Style			Risk / Return			Peer Group		Score Components		Score
Asset Allocation Strategies	Ticker	Lisk	Sty l e Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Moderate													
TIAA-CREE Lifecycle		1	1	1	1	1	0	1	1	2			9
TIAA-CREF Lifecycle Index 2025 Instl	9.07	61.38/ 38.62	99. 78	9.07/ 10.61	96.67/ 95.38	-0.35	16.00	13.00	-	9	9.5	MOD	

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Lifecycle	9	9	9	9	9	10	10	10
Index 2025 InstI	MOD	MOD	MOD	MOD	MOD	MOD	MOD	MOD

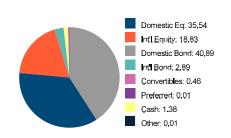
The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information					
TIAA-CREF Equity Index W / TEQWX	35.97	Prospectus Net Exp. Ratio:	0.10				
TIAA-CREF Bond Index W / TBIWX	35.54	Prospectus Gross Exp. Ratio:	0.19				
TIAA-CREF International Eq Idx W / TCIWX	13.11	1 Avg Exp Ratio Morningstar (%):					
TIAA-CREF Emerging Markets Eq Idx W / TENWX	6.11						
TIAA-CREF Inflation Link Bd W / TIIWX	4.60	12b-1 fees (%):	-				
TIAA-CREF Short-Term Bond Index W / TTBWX	4.59	Closed - New Inv:	-				
-	-	Closed - All Inv:	_				
-	-	Min Investment:	\$10,000,000				
-	-	Waiver Amt:	0.09				
-	-	Waiver Exp Date:	9/30/2022				
% in Top 10 Holdings	99.92	Strategy Inception:	9/30/2009				
# of Holdings	7	Share Class Inception:	9/30/2009				

Risk Bucket as of 12/31/2021

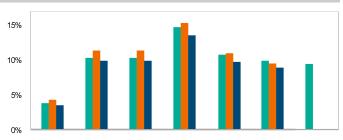
Risk Bucket	Risk Range	Risk (X
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	9.07
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X≤5.75	-

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 7.79

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ TIAA-CREF Lifecycle Index 2025 InstI	3.72%	10.14%	10.14%	14.51%	10.61%	9.73%	9.29%
■ StyleBenchmark*	4.20%	11.20%	11.20%	15.09%	10.81%	9.35%	
■ Peer Group**	3.43%	9.75%	9.75%	13.36%	9.59%	8.76%	
Peer Group Rank*	26	45	45	27	16	14	-
Peer Group Size (funds)*	-	-	220	203	167	88	-

*4.07% Merrill Lynch 3-Month T-Bill, 34.55% BB Aggregate Bond, 41.40% Russell 3000, 19.98% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2025

TIAA-CREF Lifecycle Index 2030 Instl Category: Moderate

TLHIX 12/31/2021

Fund Strategy

The investment seeks high total return over time through a combination of capital appreciation and income. The fund is a "fund of funds" that invests in Class W shares of other funds of the Trust and potentially in other investment pools or investment products. It has a policy of investing at least 80% of its assets (net assets, plus the amount of any borrowings for investment purposes) in underlying funds that are managed to seek investment returns that track particular market indices. Advisors currently expects to allocate approximately 64.40% of the fund's assets to equity underlying funds and 35.60% of its assets to fixed-income underlying funds.

fund's assets to equity underlying funds a	nd's assets to equity underflying funds and 35.60% of its assets to fixed-income underflying funds.										
Fund Information		Portfolio Statistics									
		Alpha*:	0.11	P/E:	18.88						
Strategy Asset (\$ mm):	6,662.00	Beta*:	0.85	P/B:	2.73						
Share Class Assets (\$ mm):	5.656.00		as of date 11/30/2021	SEC Yield (%):	-						
Grane Glade / toode (\$ mm).	0,000.00			Turnover:	16.00						
Manager:	John Cunniff			aso	of date 12/31/2021						
		*Best fit index: Morningstar US Mod Agg Tgt Alloc NR USD									

Manager Tenure: 12 Years *3-year statistic: Morningstar US Mod Agg Tgt Alloc NR USD

Scorecard

		Style			Risk / Return			Peer Group			Score Components		Score
Asset Allocation Strategies	Ticker	Risk Level	Sty l e Diversity	R²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Moderate													
TIAA-CREF Lifecycle Index 2030 Instl		1	1	1	1	1	0	1	1	2			9
	TLHIX	10.24	69.27/ 30.73	99. 81	10.24/ 11.57	96.95/ 95.88	-0.33	10.00	18.00	-	9	9.5	MOD

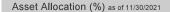
Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Lifecycle	9	9	9	9	9	10	10	10
Index 2030 InstI	MOD	MOD	MOD	MOD	MA	MOD	MOD	MOD

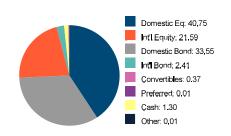
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Top 10 Holdings(%) as of 11/30/2021		Additional Information				
TIAA-CREF Equity Index W / TEQWX	41.20	Prospectus Net Exp. Ratio:	0.10			
TIAA-CREF Bond Index W / TBIWX	31.54	Prospectus Gross Exp. Ratio:	0.18			
TIAA-CREF International Eq Idx W / TCIWX	15.01	1 Avg Exp Ratio Morningstar (%): 0				
TIAA-CREF Emerging Markets Eq Idx W / TENWX	7.00					
TIAA-CREF Inflation Link Bd W / TIIWX	2.58	12b-1 fees (%):	-			
TIAA-CREF Short-Term Bond Index W / TTBWX	2.58	Closed - New Inv:	-			
-	-	Closed - All Inv:	-			
-	-	Min Investment:	\$10,000,000			
-	-	Waiver Amt:	0.08			
-	-	Waiver Exp Date:	9/30/2022			
% in Top 10 Holdings	99.92	Strategy Inception:	9/30/2009			
# of Holdings	7	Share Class Inception:	9/30/2009			

Risk Bucket as of 12/31/2021

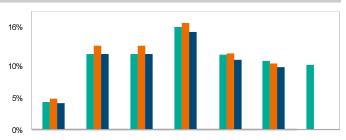
Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	10.24
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X<5.75	_





% Emerging Mkt: 7.80

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ TIAA-CREF Lifecycle Index 2030 InstI	4.25%	11.67%	11.67%	15.86%	11.57%	10.61%	10.00%
■ StyleBenchmark*	4.77%	12.97%	12.97%	16.47%	11.76%	10.21%	
Peer Group**	4.08%	11.68%	11.68%	15.08%	10.79%	9.63%	
Peer Group Rank*	36	50	50	32	21	16	-
Peer Group Size (funds)*	-	-	221	202	167	93	-

*3.56% Merrill Lynch 3-Month T-Bill, 27.16% BB Aggregate Bond, 47.14% Russell 3000, 22.13% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2030

TIAA-CREF Lifecycle Index 2035 Instl Category: Moderate Aggressive

TLYIX 12/31/2021

Fund Strategy

The investment seeks high total return over time through a combination of capital appreciation and income. The fund is a "fund of funds" that invests in Class W shares of other funds of the Trust and potentially in other investment pools or investment products. It has a policy of investing at least 80% of its assets (net assets, plus the amount of any borrowings for investment purposes) in underlying funds that are managed to seek investment returns that track particular market indices. Advisors currently expects to allocate approximately 72.40% of the fund's assets to equity underlying funds and 27.60% of its assets to fixed-income underlying funds.

und's assets to equity underlying funds and 27.60% of its assets to fixed-income underlying funds.									
Fund Information		Portfolio Statistics							
		Alpha*:	-0.26	P/E:	18.89				
Strategy Asset (\$ mm):	6,353.00	Beta*:	0.95	P/B:	2.73				
Share Class Assets (\$ mm):	5.413.00		as of date 11/30/2021	SEC Yield (%):	-				
Onare Glace / Goods (\$ mm).	0,110.00			Turnover:	15.00				
Manager:	John Cunniff			as o	of date 12/31/2021				
		*Best fit index: Morningstar US Mod Agg Tgt Alloc NR USD							

*3-year statistic: Morningstar US Mod Agg Tgt Alloc NR USD

*3-year statistic: Morningstar US Mod Agg Tgt Alloc NR USD

Manager Tenure: Scorecard

		Style			Risk / Return			Peer Group			Score Components		Score
Asset Allocation Strategies	Ticker	RISK	Sty l e Diversity	R²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Moderate Aggressive													
TIAA-CREF Lifecycle	TLYIX	1	1	1	1	1	0	1	1	2		9.5	9
Index 2035 InstI		11.42	77.14/ 22.86	99. 82	11.42/ 12.49	97.07/ 96.48	-0.39	18.00	10.00	-	9		MA

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Lifecycle	9	9	9	9	10	10	10	10
Index 2035 InstI	MA	MA	MA	MA	MA	MA	MA	MA

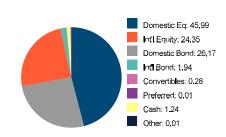
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Top 10 Holdings(%) as of 11/30/2021		Additional Information	
TIAA-CREF Equity Index W / TEQWX	46.45	Prospectus Net Exp. Ratio:	0.10
TIAA-CREF Bond Index W / TBIWX	27.54	Prospectus Gross Exp. Ratio:	0.18
TIAA-CREF International Eq Idx W / TCIWX	16.91	Avg Exp Ratio Morningstar (%):	0.46
TIAA-CREF Emerging Markets Eq Idx W / TENWX	7.88		
TIAA-CREF Inflation Link Bd W / TIIWX	0.56	12b-1 fees (%):	-
TIAA-CREF Short-Term Bond Index W / TTBWX	0.56	Closed - New Inv:	-
-	-	Closed - All Inv:	-
-	-	Min Investment:	\$10,000,000
-	-	Waiver Amt:	0.08
-	-	Waiver Exp Date:	9/30/2022
% in Top 10 Holdings	99.89	Strategy Inception:	9/30/2009
# of Holdings	7	Share Class Inception:	9/30/2009

Risk Bucket as of 12/31/2021

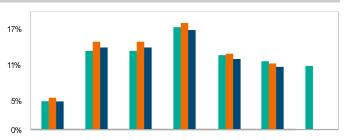
Risk Bucket	Risk Range	Risk (X
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	11.42
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X≤5.75	_

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 7.79

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ TIAA-CREF Lifecycle Index 2035 InstI	4.74%	13.21%	13.21%	17.18%	12.49%	11.45%	10.68%
■ StyleBenchmark*	5.34%	14.75%	14.75%	17.88%	12.72%	11.09%	
Peer Group**	4.71%	13.76%	13.76%	16.70%	11.84%	10.51%	
Peer Group Rank*	48	69	69	38	26	14	-
Peer Group Size (funds)*	-	-	213	200	164	85	-

*2.44% Merrill Lynch 3-Month T-Bill, 20.41% BB Aggregate Bond, 52.93% Russell 3000, 24.21% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2035

TIAA-CREF Lifecycle Index 2040 Instl Category: Moderate Aggressive

TLZ|X 12/31/2021

Fund Strategy

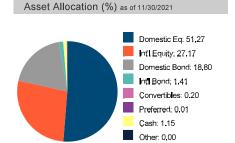
The investment seeks high total return over time through a combination of capital appreciation and income. The fund is a "fund of funds" that invests in Class W shares of other funds of the Trust and potentially in other investment pools or investment products. It has a policy of investing at least 80% of its assets (net assets, plus the amount of any borrowings for investment purposes) in underlying funds that are managed to seek investment returns that track particular market indices. Advisors currently expects to allocate approximately 80.40% of the fund's assets to equity underlying funds and 19.60% of its assets to fixed-income underlying funds.

fund's assets to equity underlying funds	and 19.60% of its assets to	tixea-incon	ne underlying tunds.				
Fund Information		Portfolio Statistics					
		Alpha*:	-0.65	P/E:	18.88		
Strategy Asset (\$ mm):	6,574.00	Beta*:	1.05	P/B:	2.73		
Share Class Assets (\$ mm):	5.644.00		as of date 11/30/2021	SEC Yield (%):	-		
Snare Class Assets (\$ mm):	0,011.00			Turnover:	14.00		
Manager:	John Cunniff			as of	f date 12/31/2021		
		*Best fit	index: Morningstar US	Mod Aga Tat Alloc	NR USD		

Manager Tenure: 12 Years *3-year statistic: Morningstar US Mod Agg Tgt Alloc NR USD

Risk Bucket as of 12/31/2021

Risk Bucket	Risk Range	Risk (X
Aggressive	13.00X≤15.25	-
Moderate Aggressive	10.50X≤13.00	12.60
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X<5.75	_



% Emerging Mkt: 7.80

Scorecard

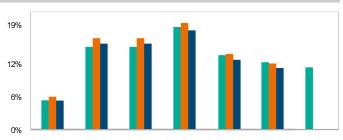
	tegies Ticker L	Style			Risk / Return			Peer Group			Score Components		Score
Asset Allocation Strategies		Risk Level	Sty l e Diversity	R²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Moderate Aggressive													
TIAA-CREE Lifecycle		1	1	1	1	1	0	1	1	2			9
Index 2040 Instl	IAA-CREF Lifecycle Index 2040 InstI	12.60	84.37/ 15.63	99. 85	12.60/ 13.39	97.89/ 97.76	-0.37	12.00	16.00	-	9	9.5	MA

		10.00	10.00					
Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Lifecycle	9	9	9	9	10	10	10	10
Index 2040 InstI	MA	MA	MA	MA	MA	MA	MA	MA

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
TIAA-CREF Equity Index W / TEQWX	51.71	Prospectus Net Exp. Ratio:	0.10
TIAA-CREF Bond Index W / TBIWX	20.56	Prospectus Gross Exp. Ratio:	0.17
TIAA-CREF International Eq Idx W / TCIWX	18.84	Avg Exp Ratio Morningstar (%):	0.46
TIAA-CREF Emerging Markets Eq Idx W / TENWX	8.78		
-	-	12b-1 fees (%):	-
-	-	Closed - New Inv:	-
-	-	Closed - All Inv:	-
-	-	Min Investment:	\$10,000,000
-	_	Waiver Amt:	0.07
-	_	Waiver Exp Date:	9/30/2022
% in Top 10 Holdings	99.88	Strategy Inception:	9/30/2009
# of Holdings	5	Share Class Inception:	9/30/2009

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
TIAA-CREF Lifecycle Index 2040 InstI	5.26%	14.89%	14.89%	18.48%	13.39%	12.13%	11.21%
StyleBenchmark*	5.88%	16.46%	16.46%	19.18%	13.61%	11.90%	
Peer Group**	5.21%	15.47%	15.47%	17.86%	12.56%	11.08%	
Peer Group Rank*	52	70	70	33	20	10	-
Peer Group Size (funds)*	-	-	215	202	167	93	-

*1.85% Merrill Lynch 3-Month T-Bill, 13.78% BB Aggregate Bond, 58.49% Russell 3000, 25.88% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2040

TIAA-CREF Lifecycle Index 2045 Instl Category: Aggressive

TLXIX 12/31/2021

Fund Strategy

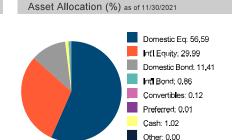
The investment seeks high total return over time through a combination of capital appreciation and income. The fund is a "fund of funds" that invests in Class W shares of other funds of the Trust and potentially in other investment pools or investment products. It has a policy of investing at least 80% of its assets (net assets, plus the amount of any borrowings for investment purposes) in underlying funds that are managed to seek investment returns that track particular market indices. Advisors currently expects to allocate approximately 88.40% of the fund's assets to equity underlying funds and 11.60% of its assets to fixed-income underlying funds.

rund's assets to equity underlying runds a	and 11.00% of its assets to	iixeu-ii icoii	ie undenying lunds.			
Fund Information		Portfolio Statistics				
		Alpha*:	-0.96	P/E:	18.88	
Strategy Asset (\$ mm):	4,968.00	Beta*:	1.15	P/B:	2.73	
Share Class Assets (\$ mm):	4.231.00		as of date 11/30/2021	SEC Yield (%):	-	
Share Class Assets (\$ mm):	1,201.00			Turnover:	11.00	
Manager:	John Cunniff			as	of date 12/31/2021	
		*Best fit	index: Morningstar US	Mod Agg Tgt All	oc NR USD	

Manager Tenure: 12 Years *3-year statistic: Morningstar US Mod Agg Tgt Alloc NR USD

Risk Bucket as of 12/31/2021

Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	13.66
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X≤5.75	-



% Emerging Mkt: 7.81

Scorecard

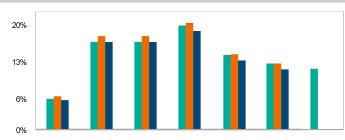
			Style		Ris	Risk / Return		Peer Group			Score Components		Score
Asset Allocation Strategies	Ticker	Risk Level	Sty l e Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Aggressive													
TIAA-CREF Lifecycle		1	1	1	0	0	0	1	1	2			8
Index 2045 Instl	TLXIX	13.66	89.10/ 10.90	99. 90	13.66/ 14.14	99.68/ 100.57	-0.37	9.00	11.00	-	7	9.5	AGG

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Lifecycle	8	8	8	8	8	9	9	9
Index 2045 InstI	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
TIAA-CREF Equity Index W / TEQWX	56.99	Prospectus Net Exp. Ratio:	0.10
TIAA-CREF International Eq Idx W / TCIWX	20.75	Prospectus Gross Exp. Ratio:	0.17
TIAA-CREF Bond Index W / TBIWX	12.44	Avg Exp Ratio Morningstar (%):	0.46
TIAA-CREF Emerging Markets Eq Idx W / TENWX	9.68		
-	-	12b-1 fees (%):	_
-	-	Closed - New Inv:	_
-	-	Closed - All Inv:	_
-	-	Min Investment:	\$10,000,000
-	-	Waiver Amt:	0.07
-	_	Waiver Exp Date:	9/30/2022
% in Top 10 Holdings	99.87	Strategy Inception:	9/30/2009
# of Holdings	5	Share Class Inception:	9/30/2009

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ TIAA-CREF Lifecycle Index 2045 InstI	5.82%	16.65%	16.65%	19.76%	14.14%	12.53%	11.53%
StyleBenchmark*	6.31%	17.74%	17.74%	20.23%	14.31%	12.55%	
Peer Group**	5.56%	16.63%	16.63%	18.73%	13.11%	11.41%	
					_		
Peer Group Rank*	44	52	52	17	7	6	-
Peer Group Size (funds)*	-	-	213	200	164	84	-

*0.00% Merrill Lynch 3-Month T-Bill, 10.90% BB Aggregate Bond, 63.17% Russell 3000, 25.94% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2045

TIAA-CREF Lifecycle Index 2050 Instl Category: Aggressive

TLLIX 12/31/2021

Fund Strategy

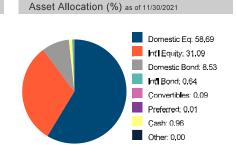
The investment seeks high total return over time through a combination of capital appreciation and income. The fund is a "fund of funds" that invests in Class W shares of other funds of the Trust and potentially in other investment pools or investment products. It has a policy of investing at least 80% of its assets (net assets, plus the amount of any borrowings for investment products in underlying funds that are managed to seek investment returns that track particular market indices. Advisors currently expects to allocate approximately 91% of the fund's assets to equity underlying funds and 9% of its assets to fixed-income underlying funds.

tund's assets to equity underlying tunds a	ind s assets to equity underlying funds and 9% of its assets to fixed-income underlying funds.										
Fund Information		Portfolio Statistics									
		Alpha*:	-0.56	P/E:	18.88						
Strategy Asset (\$ mm):	4,114.00	Beta*:	0.98	P/B:	2.73						
Share Class Assets (\$ mm):	3.480.00		as of date 11/30/2021	SEC Yield (%):	-						
Chare Glase / leedle (\$ 11111).	0, 100.00			Turnover:	9.00						
Manager:	John Cunniff			as of	f date 12/31/2021						
		*Best fit i	index: Morningstar US.	Aga Tat Alloc NR	USD						

Manager Tenure: 12 Years *3-year statistic: Morningstar US Agg Tgt Alloc NR USD

Risk Bucket as of 12/31/2021

Risk Bucket	Risk Range	Risk (X)
Aggressive	13.00X≤15.25	13.86
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75X≤7.75	-
Conservative	3.00X≤5.75	-



% Emerging Mkt: 7.81

Scorecard

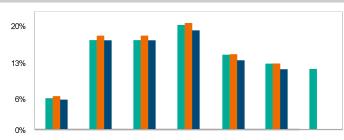
		Style			Risk / Return			Peer Group			Score Components		Score
Asset Allocation Strategies	Ticker	LISK	Sty l e Diversity	R²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Aggressive													
TIAA-CREF Lifecycle		1	1	1	0	0	0	1	1	2			8
Index 2050 InstI	TLLIX	13.86	89.97/ 10.03	99. 90	13.86/ 14.35	100.31/ 101.12	-0.18	9.00	11.00	-	7	9.5	AGG

		10.00 00	14.00	1.12				
Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Lifecycle	8	8	8	9	9	8	8	8
Index 2050 InstI	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG

The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
TIAA-CREF Equity Index W / TEQWX	59.06	Prospectus Net Exp. Ratio:	0.10
TIAA-CREF International Eq Idx W / TCIWX	21.50	Prospectus Gross Exp. Ratio:	0.17
TIAA-CREF Emerging Markets Eq Idx W / TENWX	10.03	Avg Exp Ratio Morningstar (%):	0.47
TIAA-CREF Bond Index W / TBIWX	9.28		
-	-	12b-1 fees (%):	-
-	-	Closed - New Inv:	-
-	-	Closed - All Inv:	-
-	-	Min Investment:	\$10,000,000
-	-	Waiver Amt:	0.07
-	_	Waiver Exp Date:	9/30/2022
% in Top 10 Holdings	99.88	Strategy Inception:	9/30/2009
# of Holdings	5	Share Class Inception:	9/30/2009

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
TIAA-CREF Lifecycle Index 2050 InstI	6.00%	17.14%	17.14%	20.05%	14.35%	12.64%	11.63%
StyleBenchmark*	6.40%	18.01%	18.01%	20.42%	14.43%	12.67%	
Peer Group**	5.73%	17.12%	17.12%	19.01%	13.26%	11.56%	
Peer Group Rank*	44	49	49	19	6	5	-
Peer Group Size (funds)*	-	-	215	202	167	85	-

 $^{\star}0.00\%~Merrill~Lynch~3-Month~T-Bill,~10.03\%~BB~Aggregate~Bond,~64.14\%~Russell~3000,~25.83\%~MSCI~ACWI~Index~ex~USA~ND~USD~10.00\%~Merrill~Lynch~2-Month~T-Bill,~10.03\%~BB~Aggregate~Bond,~64.14\%~Russell~3000,~25.83\%~MSCI~ACWI~Index~ex~USA~ND~USD~10.00\%~Merrill~Lynch~2-Month~T-Bill,~10.03\%~BB~Aggregate~Bond,~64.14\%~Russell~3000,~25.83\%~MSCI~ACWI~Index~ex~USA~ND~USD~10.00\%~Merrill~Lynch~2-Month~2$

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^{**} Morningstar Peer Group: Target-Date 2050

TIAA-CREF Lifecycle Index 2055 Instl Category: Aggressive

TTIIX 12/31/2021

Fund Strategy

The investment seeks high total return over time through a combination of capital appreciation and income. The fund is a "fund of funds" that invests in Class W shares of other funds of the Trust and potentially in other investment pools or investment products. It has a policy of investing at least 80% of its assets (net assets, plus the amount of any borrowings for investment purposes) in underlying funds that are managed to seek investment returns that track particular market indices. Advisors currently expects to allocate approximately 92.25% of the fund's assets to equity underlying funds and 7.75% of its assets to fixed-income underlying funds.

fund's assets to equity underlying funds	und's assets to equity underfying funds and 7.75% of its assets to fixed-income underfying funds.									
Fund Information		Portfolio Statistics								
		Alpha*:	-0.66	P/E:	18.88					
Strategy Asset (\$ mm):	2,113.00	Beta*:	0.99	P/B:	2.73					
Share Class Assets (\$ mm):	1.782.00		as of date 11/30/2021	SEC Yield (%):	-					
Original Original (William).	1,702.00			Turnover:	6.00					
Manager: John Cunniff				as of	date 12/31/2021					
		*Doot fit i	indov: Morningator IIC	Aga Tat Alloo ND I	IED					

*Best fit index: Morningstar US Agg Tgt Alloc NR USD

Manager Tenure: 11 Years *3-year statistic: Morningstar US Agg Tgt Alloc NR USD

Scorecard

		Style		Risk / Return			Peer Group			Score Components		Score	
Asset Allocation Strategies	Ticker	Risk Level	Sty l e Diversity	R²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Aggressive													
TIAA-CREF Lifecycle		1	1	1	0	0	0	1	1	2			8
Index 2055 Insti	TTIIX	14.07	90.81/ 9.19	99. 89	14.07/ 14.47	100.83/ 101.94	-0.15	9.00	12.00	-	7	9.5	AGG

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Lifecycle	8	8	9	9	9	8	8	8
Index 2055 InstI	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG

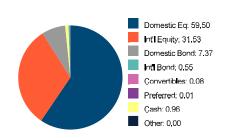
The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
TIAA-CREF Equity Index W / TEQWX	59.87	Prospectus Net Exp. Ratio:	0.10
TIAA-CREF International Eq Idx W / TCIWX	21.81	Prospectus Gross Exp. Ratio:	0.18
TIAA-CREF Emerging Markets Eq Idx W / TENWX	10.17	Avg Exp Ratio Morningstar (%):	0.46
TIAA-CREF Bond Index W / TBIWX	8.00		
-	-	12b-1 fees (%):	-
-	-	Closed - New Inv:	-
-	-	Closed - All Inv:	-
-	-	Min Investment:	\$10,000,000
-	-	Waiver Amt:	0.08
-	-	Waiver Exp Date:	9/30/2022
% in Top 10 Holdings	99.85	Strategy Inception:	4/29/2011
# of Holdings	5	Share Class Inception:	4/29/2011

Risk Bucket as of 12/31/2021

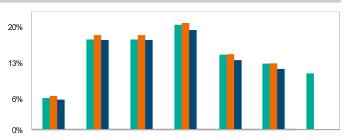
Risk Bucket	Risk Range	Risk (X
Aggressive	13.00X≤15.25	14.07
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X≤5.75	-

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 7.81

Performance Analysis as of 12/31/2021



	QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
TIAA-CREF Lifecycle Index 2055 InstI	6.07%	17.39%	17.39%	20.25%	14.47%	12.73%	10.84%
StyleBenchmark*	6.47%	18.23%	18.23%	20.58%	14.54%	12.78%	
Peer Group**	5.77%	17.30%	17.30%	19.21%	13.40%	11.69%	
Peer Group Rank*	44	44	44	16	6	6	-
Peer Group Size (funds)*	-	-	213	200	162	64	-

*0.00% Merrill Lynch 3-Month T-Bill, 9.19% BB Aggregate Bond, 64.89% Russell 3000, 25.92% MSCI ACWI Index ex USA ND USD

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^{**} Morningstar Peer Group: Target-Date 2055

TIAA-CREF Lifecycle Index 2060 Instl Category: Aggressive

TVIIX 12/31/2021

Fund Strategy

The investment seeks high total return over time through a combination of capital appreciation and income. The fund is a "fund of funds" that invests in Class W shares of other funds of the Trust and potentially in other investment pools or investment products. It has a policy of investing at least 80% of its assets (net assets, plus the amount of any borrowings for investment purposes) in underlying funds that are managed to seek investment returns that track particular market indices. Advisors currently expects to allocate approximately 93.50% of the fund's assets to equity underlying funds and 6.50% of its assets to fixed-income underlying funds.

rund's assets to equity underlying runds ar	10 6.50% OF Its assets to II	kea-income	e underlying runds.				
Fund Information			Portfolio Statistics				
		Alpha*:	-0.69	P/E:	18.88		
Strategy Asset (\$ mm):	906.00	Beta*:	1.00	P/B:	2.73		
Share Class Assets (\$ mm):	779.00		as of date 11/30/2021	SEC Yield (%):	-		
C. Lair C.	7,5105			Turnover:	6.00		
Manager:	John Cunniff			as c	f date 12/31/2021		
		*Best fit i	index: Morningstar US.	Aga Tat Alloc NR	USD		

Manager Tenure: 7 Years *3-year statistic: Morningstar US Agg Tgt Alloc NR USD

Scorecard

				Style		Ri	Risk / Return Peer Group Score Component		nponents	Score				
	Asset Allocation Strategies	Ticker	RISK	Sty l e Diversity	R ²	Risk / Return	Up / Down	Info Ratio	Return Rank	SR Ratio Rank	Qual. (2pt max)	Allocation	Selection	Q4 2021
Α	ggressive													
Ę	IAA-CREF Lifecycle		1	1	1	0	0	0	1	1	2			8
l'	Index 2060 InstI	TVIIX	14.23	92.17/ 7.83	99. 91	14.23/ 14.61	100.78/ 101.40	-0.01	7.00	13.00	-	7	9.5	AGG

Asset Allocation Strategies	Score 12/31/2021	Score 9/30/2021	Score 6/30/2021	Score 3/31/2021	Score 12/31/2020	Score 9/30/2020	Score 6/30/2020	Score 3/31/2020
TIAA-CREF Lifecycle	8	8	9	9	10	9	10	10
Index 2060 InstI	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG

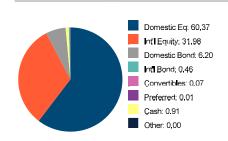
The Scorecard Methodology incorporates both quantitative and qualitative factors into evaluating fund managers and their investment strategies (80% of the score is quantitative and 20% is qualitative). The scoring system is built around pass/fail criteria, on a scale of 0-10 (with 10 being the best) and there is a fund history requirement (5 years for active strategies and 3 years for passive strategies). For Active and Asset Allocation Strategies, the Scorecard factors are weighted 30% to style, 30% to risk/return, 20% to peer group rankings and 20% to qualitative factors.

Top 10 Holdings(%) as of 11/30/2021		Additional Information	
TIAA-CREF Equity Index W / TEQWX	60.73	Prospectus Net Exp. Ratio:	0.10
TIAA-CREF International Eq Idx W / TCIWX	22.11	Prospectus Gross Exp. Ratio:	0.20
TIAA-CREF Emerging Markets Eq Idx W / TENWX	10.31	Avg Exp Ratio Morningstar (%):	0.46
TIAA-CREF Bond Index W / TBIWX	6.73		
-	-	12b-1 fees (%):	-
-	-	Closed - New Inv:	-
-	-	Closed - All Inv:	-
-	_	Min Investment:	\$10,000,000
-	_	Waiver Amt:	0.10
-	_	Waiver Exp Date:	9/30/2022
% in Top 10 Holdings	99.88	Strategy Inception:	9/26/2014
# of Holdings	5	Share Class Inception:	9/26/2014

Risk Bucket as of 12/31/2021

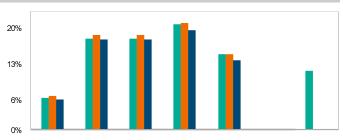
Risk Bucket	Risk Range	Risk (X
Aggressive	13.00X≤15.25	14.23
Moderate Aggressive	10.50X≤13.00	-
Moderate	7.75X≤10.50	-
Moderate Conservative	5.75 X ≤7.75	-
Conservative	3.00X≤5.75	-

Asset Allocation (%) as of 11/30/2021



% Emerging Mkt: 7.80

Performance Analysis as of 12/31/2021



QTR	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
6.14%	17.64%	17.64%	20.44%	14.61%		11.40%
6.50%	18.37%	18.37%	20.68%	14.62%		
5.83%	17.47%	17.47%	19.28%	13.45%		
41	43	43	11	6	-	-
-	-	208	188	139	-	-
	6.14% 6.50% 5.83%	6.14% 17.64% 6.50% 18.37% 5.83% 17.47%	6.14% 17.64% 17.64% 6.50% 18.37% 18.37% 5.83% 17.47% 17.47%	6.14% 17.64% 17.64% 20.44% 6.50% 18.37% 18.37% 20.68% 5.83% 17.47% 17.47% 19.28%	6.14% 17.64% 17.64% 20.44% 14.61% 6.50% 18.37% 18.37% 20.68% 14.62% 5.83% 17.47% 17.47% 19.28% 13.45% 41 43 43 11 6	6.14% 17.64% 17.64% 20.44% 14.61% 6.50% 18.37% 18.37% 20.68% 14.62% 5.83% 17.47% 17.47% 19.28% 13.45%

*0.00% Merrill Lynch 3-Month T-Bill, 7.83% BB Aggregate Bond, 64.89% Russell 3000, 27.28% MSCI ACWI Index ex USA ND USD

The performance analysis displayed is reflective of past performance. Past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate over time. Current performance may differ from the performance displayed. Investing includes risk, including potential loss of principal. Carefully consider any and all investment objectives, risk factors and charges and expenses before investing. Contact your financial advisor or consultant for funds current performance and a copy of the most recent prospectus.

^{**} Morningstar Peer Group: Target-Date 2060

Summary Comparison Passive TDFs Evaluation

Glidepath Data

A TDFs equity exposure and the rate of change in its equity exposure as participants approach retirement are used to categorize TDFs into three different risk postures in correspondence to the risk index.

Conservative <54

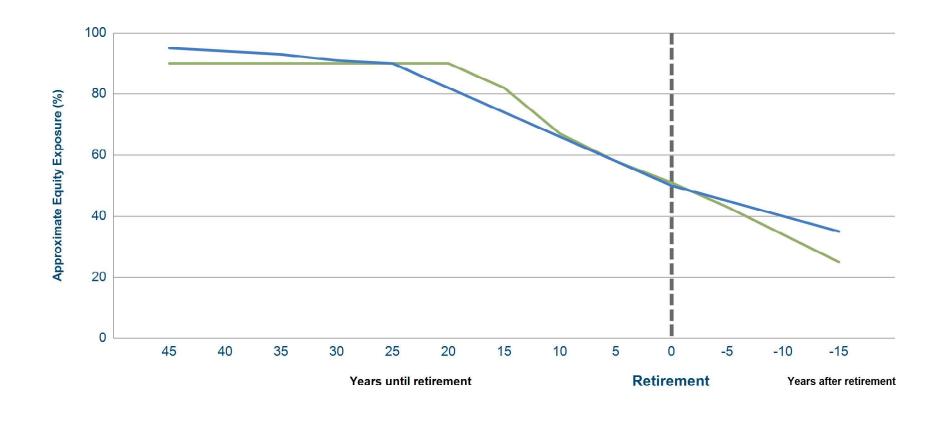
Moderate 55 - 69

Aggressive >70

	TDF Design	Risk	Equity (Approx.)	Approx.	• •				Management	I nvestment
Product Name	Analysis	Index	Starting	Ending	Exposure at	Slope	Tactical %	Style	Approach		
	,		Eq	Eq	age 65				''		
Fidelity Freedom Index	Aggressive	81	90%	19%	51%	1.6	0%	Passive	Proprietary Funds		
TIAA-CREF Lifecycle Index	Aggressive	76	95%	20%	50%	1.3	10-20%	Passive	Proprietary Funds		

Proprietary Funds means only funds that are managed by a TDF investment manager are used.

TDF Considerations Glidepaths



— Fidelity Freedom Index — TIAA-CREF Lifecycle Index

Asset Class Coverage

Traditional TDF

Aggressive

	Fidelity Freedom Index	TIAA-CREF Lifecycle Index
U.S. Large Cap Equity	X	X
U.S. Mid Cap Equity	X	×
U.S. Small Cap Equity	X	X
International Equity	X	X
Emerging Market Equity	X*	X
U.S. Fixed Income	X	X
U.S. TIPS	X	X
High Yield Fixed Income		
International Fixed Income		
Emerging Market Debt		
REITs		
Commodities		

^{*} The emerging market equity exposure in Fidelity Freedom Index is indirect exposure through non-US equity Fidelity Series Global ex U.S. Index fund holding.

Fees

	Traditional TDF							
	Aggressive							
	Fidelity Freedom Index TIAA-CREF Lifecycle Index							
Investment Philosophy	Passive	Passive						
Average Investment Expense	0.08%	0.10%						
Revenue Sharing	0.00%	0.00%						
Net Investment Management Expense	0.08%	0.10%						

TDF Comparison Summary

Traditional TDF

Aggressive

	Fidelity Freedom Index	ПАА-CREF Lifecycle Index
TDF Risk Index	81	76
Management Style	Passive	Passive
# of Asset Classes	6	7
# Underlying Active Fund Managers	0	0
# Underlying Funds on Watchlist	0	0
Average Underlying Fund Score	8.7	9.5
ERISA 3(38)	No	No
Glidepath Manager	Fidelity	TIAA
Trustee/ Custodian	Fidelity	ПАА
Net Expense Ratio	0.08%	0.10%

Risk/Return Data

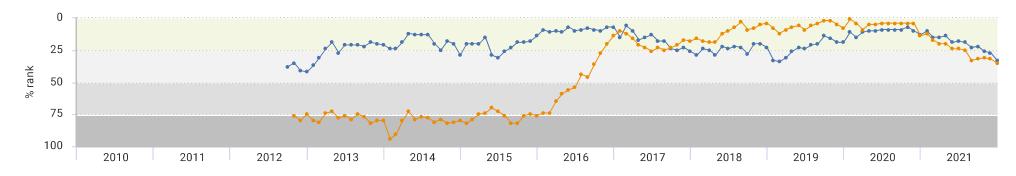
	QTR 1-Year			3-Year			5-Year			10-Year					
		10/1/21		1/1/21 12/31/21		1/1/19 12/31/21		1/1/17 12/31/21			1/1/12 12/31/21				
		12/31/21													
Group/Investment	Return	Sharpe Ratio	Std Dev	Return	Sharpe Ratio	Std Dev	Return	Sharpe Ratio	Std Dev	Return	Sharpe Ratio	Std Dev	Return	Sharpe Ratio	Std Dev
Target Date Retirement															
Fidelity Freedom® Index 2020 Instl Prem	3.29	2.57	7.26	8.40	1.63	5.01	13.07	1.31	9.06	9.63	1.05	7.97	8.08	1.03	7.20
TIAA-CREF Lifecycle Index 2020 Inst	3.27	2.54	7.29	8.76	1.70	4.98	13,19	1.32	9.08	9.67	1.06	7.93	8.85	1.12	7.24
Target Date 2025															
Fidelity Freedom® Index 2025 Instl Prem	3.72	2.51	8.24	9.63	1.68	5.55	14.24	1.28	10.15	10.41	1.03	8.91	8.99	1.03	8.13
TIAA-CREF Lifecycle Index 2025 Instl	3.72	2.51	8.41	10.14	1.75	5.61	14.51	1.28	10.38	10.61	1.03	9.07	9.73	1.10	8.22
Target Date 2035															
Fidelity Freedom® Index 2035 Instl Prem	5.04	2.42	11.82	13.81	1.76	7.52	18.02	1.18	14.21	13.05	0.96	12.49	10.97	0.95	10.96
TIAA-CREF Lifecycle Index 2035 Inst	4.74	2.46	10.93	13.22	1.81	7.01	17.18	1,22	13.07	12.49	0.99	11.42	11.45	1.05	10.26
Target Date 2045															
Fidelity Freedom® Index 2045 Instl Prem	5.80	2.39	13.76	15.99	1.78	8.54	19.43	1.17	15.52	13.78	0.94	13.51	11.45	0.94	11.58
TIAA-CREF Lifecycle Index 2045 Instl	5.82	2.43	13.64	16.66	1.85	8.52	19.76	1.18	15.71	14.14	0.96	13.66	12.53	1.01	11.82
Target Date 2055															
Fidelity Freedom® Index 2055 Instl Prem	5.75	2,37	13.79	15.93	1.78	8.51	19.42	1.17	15.53	13.78	0.94	13.51	11.60	0.95	11.66
TIAA-CREF Lifecycle Index 2055 Instl	6.07	2.41	14.35	17.41	1.85	8.87	20.25	1.17	16.19	14.47	0.95	14.07	12.73	1.01	12.05
Simple Average															
Fidelity Freedom® Index Inst Prem	4.72	2.45	10.97	12.75	1.72	7.03	16.84	1.22	12.89	12.13	0.99	11.28	10.22	0.98	9.91
TIAA-CREF Lifecycle Index InstI	4.72	2.47	10.92	13.24	1.79	7.00	16.98	1.23	12.89	12.28	1.00	11.23	11.06	1.06	9.92

3-Year Rolling Returns | 2030 Funds

Time period: 01/01/2007 - 12/31/2021 | Rolling window: 3 years 1 month shift



Rolling Percentile Ranks - US Fund Target Date 2030



Rolling Excess Returns vs. S&P Target Date 2030



% of time	Fidelity Freedom Index	TIAA-CREF Lifecycle Index
Top quartile rank / # of periods available	50% / 111	80% / 112
Outperforms bmk / # of periods available	58% / 111	100% / 112

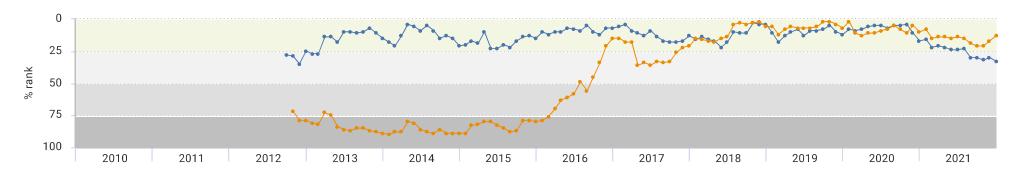
As of 12/31/2021. © 2021 Morningstar, Inc. All Rights Reserved. Past performance is not a guarantee of future results. All performance information is shown net of fees. Performance information may include extended performance returns, provided by Morningstar, where available. Performance includes the reinvestment of income. % rank in category refer to Morningstar's open end and exchange traded fund universe. Calculation period defaults to a maximum of 15 years; If selected funds or benchmark incepted more recently than 15 years ago, the calculation period for each fund will default to the shorter of each fund's and benchmark inception. See Disclosure page for ranking criteria details. See Disclosure page for commingled fund details.

3-Year Rolling Returns | 2040 Funds

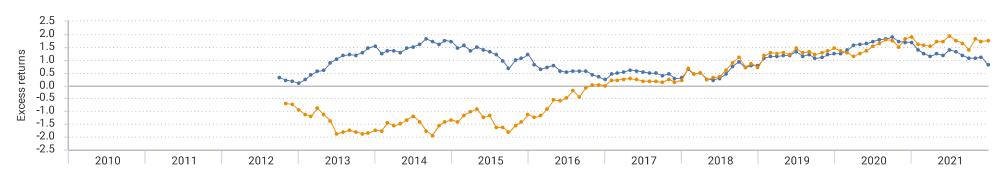
Time period: 01/01/2007 - 12/31/2021 | Rolling window: 3 years 1 month shift



Rolling Percentile Ranks - US Fund Target Date 2040



Rolling Excess Returns vs. S&P Target Date 2040



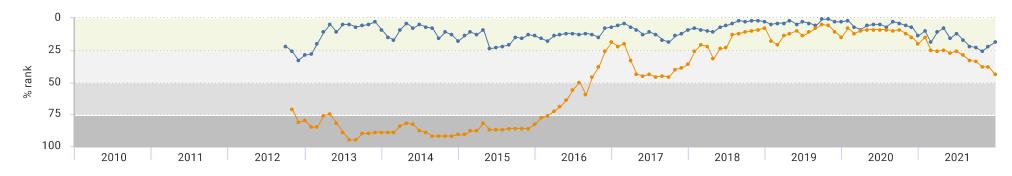
% of time	Fidelity Freedom Index	TIAA-CREF Lifecycle Index
Top quartile rank / # of periods available	50% / 111	91% / 112
Outperforms bmk / # of periods available	56% / 111	100% / 112

3-Year Rolling Returns | 2050 Funds

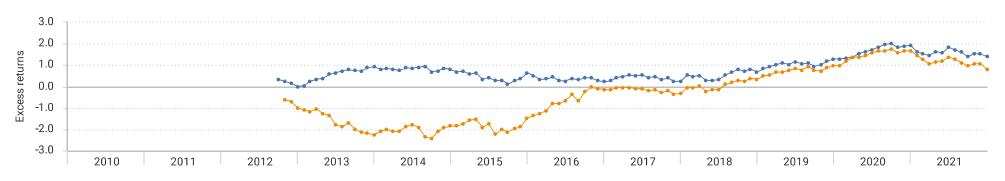
Time period: 01/01/2007 - 12/31/2021 | Rolling window: 3 years 1 month shift



Rolling Percentile Ranks - US Fund Target Date 2050



Rolling Excess Returns vs. S&P Target Date 2050



% of time	Fidelity Freedom Index	TIAA-CREF Lifecycle Index
Top quartile rank / # of periods available	36% / 111	96% / 112
Outperforms bmk / # of periods available	39% / 111	99% / 112

5-Year Rolling Returns | 2030 Funds

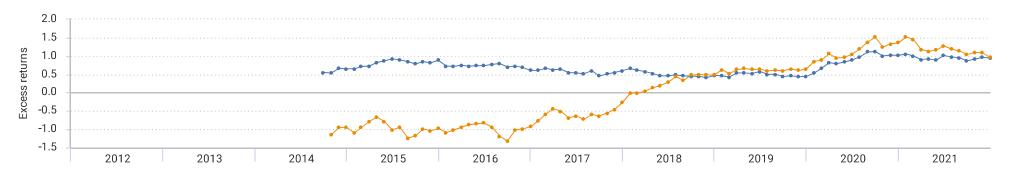
Time period: 01/01/2007 - 12/31/2021 | Rolling window: 5 years 1 month shift



Rolling Percentile Ranks - US Fund Target Date 2030



Rolling Excess Returns vs. S&P Target Date 2030



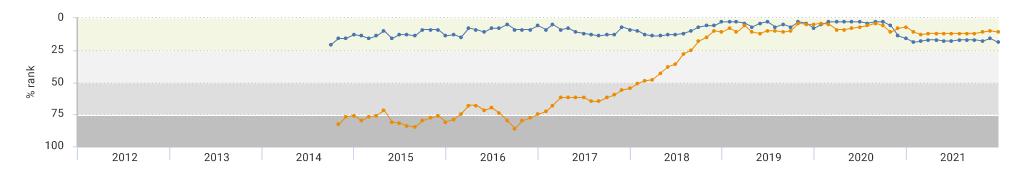
% of time	Fidelity Freedom Index	TIAA-CREF Lifecycle Index
Top quartile rank / # of periods available	47% / 87	94% / 88
Outperforms bmk / # of periods available	53% / 87	100% / 88

5-Year Rolling Returns | 2040 Funds

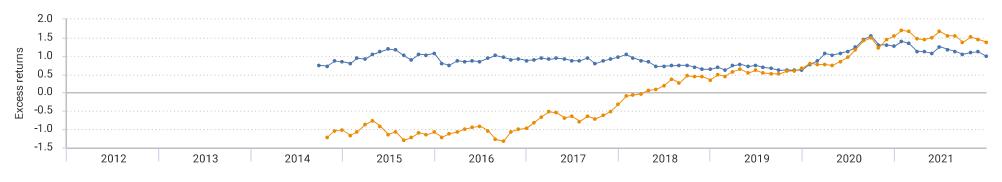
Time period: 01/01/2007 - 12/31/2021 | Rolling window: 5 years 1 month shift



Rolling Percentile Ranks - US Fund Target Date 2040



Rolling Excess Returns vs. S&P Target Date 2040



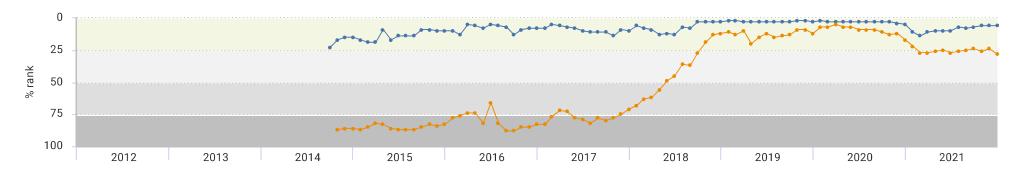
% of time	Fidelity Freedom Index	● TIAA-CREF Lifecycle Index
Top quartile rank / # of periods available	47% / 87	100% / 88
Outperforms bmk / # of periods available	52% / 87	100% / 88

5-Year Rolling Returns | 2050 Funds

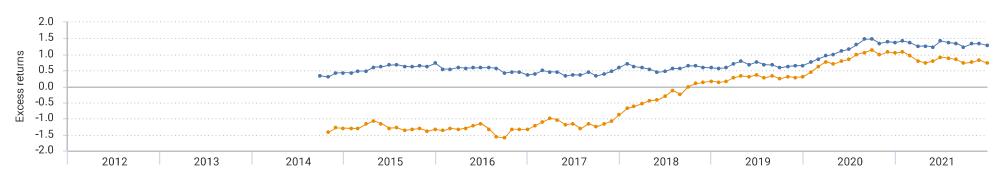
Time period: 01/01/2007 - 12/31/2021 | Rolling window: 5 years 1 month shift



Rolling Percentile Ranks - US Fund Target Date 2050



Rolling Excess Returns vs. S&P Target Date 2050



% of time	Fidelity Freedom Index	TIAA-CREF Lifecycle Index
Top quartile rank / # of periods available	37% / 87	100% / 88
Outperforms bmk / # of periods available	45% / 87	100% / 88

Vendor Survey

Maryland ORP Vendor Survey

As part of the biennial ORP review, Financial Integrity Resources Management, LLC. conducted a survey relating to the two recordkeepers, Fidelity and TIAA in March 2022. The survey was constructed to gather feedback on the Plan's design and current vendors' service. Survey respondents were asked whether they were "Unsatisfied", "Satisfied" or "Very Satisfied" with certain aspects of the Plan and were given space to provide commentary.

Survey topics included:

Conordianus

☐ Investment options

General issues
☐ Communication and Education Services
□ COVID Pandemic Service impact
☐ Administrative services

☐ Technology customer service

A total of twenty-two (22) benefit coordinators responded to the survey.

General Issues

Plan Administrators were happy with the overall structure of the ORP as 95.4% responded that they were satisfied or very satisfied. 4.6% of respondents were unsatisfied with the structure.

TIAA

Feedback was positive and indicating a majority of respondents are "Satisfied" with TIAA's issue resolution process.

- Respondents were "Satisfied" with TIAA's issue resolution of participant issues, as 54.5% responded "Very Satisfied" and 40.9% responded "Satisfied".
- Issue resolution for plan sponsors was also satisfactory, with comments stating that there is always a representative available who is very knowledge about the ORP program. 50% responded "Very Satisfied" and 45.5% responded "Satisfied".

Fidelity

Feedback was positive but less favorable than TIAA. It appears to be due to Fidelity's more cumbersome processes and slower response turnaround time.

- While 86.4% of respondents expressed
 "Satisfaction" with Fidelity's participant issue
 resolution, 13.6% felt it was "Unsatisfactory".
 Areas for improvement were Fidelity's slow
 response time, which makes it difficult to get
 information back to participants.
- Like participant issue resolution, 77.7% of respondents found Fidelity's plan sponsor issue resolution to be "Satisfactory". However, 18.2% found it "Unsatisfactory" commenting that the Plan Sponsor Webstation (PSW) is difficult to navigate, and Fidelity is not very responsive when reached out to regarding participant issues.

Communication and Education Services

Respondents were largely satisfied with the communication and education services provided by both record-keepers.

TIAA

Feedback was positive indicating majority of respondents are "Satisfied" with TIAA's overall communication and education services.

- 86.4% of respondents were "Satisfied" with the level of education provided on retirement readiness.
- 86.4% of the respondents were "Satisfied" with the level of field representative support available, with comments expecting more campus attendance.
- **95.5%** of the respondents were "Satisfied" with the quality of communication efforts conducted by TIAA during the COVID pandemic.

Fidelity

Feedback was positive but less favorable than TIAA on communication and education services, as responded that they were "Satisfied" or "Very Satisfied".

- 81.8% of respondents were "Satisfied" with the level of education provided on retirement readiness.
- 86.4% of respondents were "Satisfied" with the number of field support representative available, with comments mentioning that field representatives should be more present on campus and be equipped to handle participant questions.
- 86.6% of the respondents were "Satisfied" with the quality of communication efforts conducted by Fidelity during the COVID pandemic.

Administration Services

Respondents were overall satisfied with the administrative services provided.

TIAA

Majority of respondents are "Satisfied" with TIAA's overall administration service.

- 95.5% of respondents were "Satisfied" with the provider's responsiveness, timeliness of service, and the ease of understanding administrative services. Response time to questions is expected to be quicker by the TIAA representative.
- 100% of the respondents were "Satisfied" with the usefulness, timeliness, and ease of understanding the reports.

Fidelity

Feedback was positive but less favorable than TIAA on overall administration service due to slower responsiveness and difficulty processing transactions.

- 77.3% of respondents were "Satisfied" with the provider's responsiveness and 81.8% of respondents were satisfied with the timeliness of services.
- 86.4% of the respondents were "Satisfied"
 with the usefulness and ease of
 understanding the reports. And 72.7% of the
 respondents were "Satisfied" with the ease of
 use of the administrative services. There is a
 significant delay in processing enrollment
 paperwork.

Investment Options

Respondents were "Satisfied" with the investment options offered by both record keepers. With the introduction of the self-directed brokerage window in 2018, participants now have the flexibility to purchase any mutual fund available in the window. All respondents were satisfied with the array of investment options and brokerage window offered by TIAA and Fidelity.

Technology Customer Services

Respondents were overall "Satisfied" with the tools provided to help participants with their retirement preparation and readiness but also expected improvements.

TIAA

95.4% of respondents were "Satisfied" with the PlanFocus online portal.

- 95.5% of respondents were "Satisfied" with the overall technology customer service and call center customer service.
- 90.9% of respondents agreed that the tools provided satisfactory to help participants with their retirement preparation
- **94.7%** of respondents were "Satisfied" with the mobile apps provided.

Fidelity

81.8% of respondents were "Satisfied" with the Plan Sponsor Webstation (PSW) online portal.

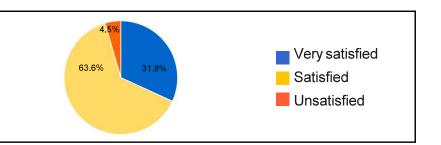
- 76.4% of respondents were "Satisfied" with the overall technology customer service and 80% of respondents were "Satisfied" with call center customer service.
- 85.7% of respondents agreed that the tools provided satisfactory to help participants with their retirement preparation
- 90% of respondents were "Satisfied" with the mobile apps provided.

Conclusion

- The respondents were generally "Satisfied" with the Plan's service providers. Several respondents listed items they felt would enhance the program such as campus attendance, better customer service, and more user-friendly portal, which were the most consistent.
- For TIAA, respondents stated that participation rates for eligible employees range from as little as 5% to as much as 100%. Respondents were overall satisfied with the plan but expected improvement with paperwork efficiency. They were also satisfied by the quality of service and 1-1 and group education virtual meetings and webinars received during the COVID pandemic.
- For Fidelity, respondents stated that participation rates for eligible employees range from as little as 6% to as much as 50%. Consistent with prior surveys, respondents highlighted areas they would like to see improved: less cumbersome plan sponsor website and transaction processing and quicker responsiveness. Respondents also indicated expectations of more onsite consulting representatives and/or more field offices and would like more outreach for education programs. Though the Plan Sponsor Webstation (PSW) was updated, there was still some dissatisfaction about the userfriendliness of the portal and cumbersome paperwork involved to initiate/make changes to accounts.

General Issues

1. How satisfied are you with the overall structure of the Optional Retirement Plan?



Questions	TIAA	Fidelity
2. How satisfied are you with the recordkeeper's resolution of participant issues?	4.5% Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied
3. How satisfied are you with the recordkeeper's resolution of your issue, as a Benefits Coordinator?	4.5% Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied Unsatisfied

Communication and Education Services

Questions	TIAA	Fidelity
1. How satisfied are you with the overall communication/education services and programs?	Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied
2. How satisfied are you with the communication efforts conducted by the TIAA during the COVID pandemic?	4.5% Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied
3. How satisfied are you with the number of field support representatives available?	Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied Unsatisfied
4. How satisfied are you with the content quality of education provided on retirement readiness?	Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied

Administrative Services

Questions	TIAA	Fidelity
1. How satisfied are you with the provider's responsiveness?	4.5% Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied
2. How satisfied are you with the ease of use of the administrative services (i.e. transaction processing)?	Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied
3. How satisfied are you with the timeliness of the services?	4.5% Very satisfied Satisfied Unsatisfied	9.1% Very satisfied Satisfied Unsatisfied
4. How satisfied are you with the timeliness of reports?	Very satisfied Satisfied Unsatisfied Unsatisfied	9.1% Very satisfied Satisfied Unsatisfied Unsatisfied
5. How satisfied are you with the usefulness and ease of understanding the reports?	Very satisfied Satisfied Unsatisfied	13.6% Very satisfied Satisfied Unsatisfied

Investment Options

Questions	TIAA	Fidelity
1. How satisfied are you with the array of investment options offered?	Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied
2. How satisfied are you with the brokerage window?	Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied

Technology Customer Service

Questions	TIAA	Fidelity
1. How satisfied are your participants with overall technology and customer service?	Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied
2. How satisfied are you with the online portal PlanFocus (TIAA)/ Plan Sponsor Webstation (Fidelity)?	4.5% Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied Unsatisfied
3. How satisfied are your participants with call center customer service?	Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied
4. How satisfied are you with the mobile apps provided?	Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied
5. Are the tools provided satisfactory to help participants with their retirement preparation and readiness?	9.1% Very satisfied Satisfied Unsatisfied	Very satisfied Satisfied Unsatisfied

Appendix A - TDFs Underlying Funds Analysis

Fidelity Freedom Index – Underlying Funds

Average Score	Number of Active Managers	Number of Funds on Watchlist
8.7	-	0

Asset Class	Fund	Score
Large Cap Blend	Fidelity Series Total Market Index	N/A*
International Equity	Fidelity Series Global ex US Index	10
Core Fixed Income	Fidelity Series Bond Index	N/A*
U.S. Government TIPS	Fidelity Series Infl-Prtct Bd Idx	7
Specialty Fixed Income	Fidelity Series Treasury Bill Index	N/A*
Long Government	Fidelity Series Long-Term Trs Bd Idx	9

^{*}Index funds with less than three years of history are not scored by the Scorecard System.

TIAA-CREF Lifecycle Index – Underlying Funds

Average Score	Number of Active Managers	Number of Funds on Watchlist
9.5	-	0

Asset Class	Fund	Score
Large Cap Blend	TIAA-CREF Equity Index W	10
International Large Cap Blend	TIAA-CREF International Eq Idx W	10
Emerging Market Equity	TIAA-CREF Emerging Markets Eq Idx W	10
Core Fixed Income	TIAA-CREF Bond Index W	9
U.S. Government TIPS	TIAA-CREF Inflation Link Bd W	8
Short-Term Bond	TIAA-CREF Short-Term Bond Index W	10

Appendix B - Scorecard System Methodology[™]

The **Scorecard System Methodology** incorporates both quantitative and qualitative factors in evaluating fund managers and their investment strategies. The **Scorecard System** is built around pass/fail criteria, on a scale of 0 to 10 (with 10 being the best) and has the ability to measure active, passive and asset allocation investing strategies. Active and asset allocation strategies are evaluated over a five-year time period, and passive strategies are evaluated over a three-year time period.

Eighty percent of the fund's score is quantitative (made up of eight unique factors), incorporating modern portfolio theory statistics, quadratic optimization analysis, and peer group rankings (among a few of the quantitative factors). The other 20 percent of the score is qualitative, taking into account things such as manager tenure, the fund's expense ratio relative to the average fund expense ratio in that asset class category, and the fund's strength of statistics (statistical significance). Other criteria that may be considered in the qualitative score includes the viability of the firm managing the assets, management or personnel issues at the firm, and/or whether there has been a change in direction of the fund's stated investment strategy. The following pages detail the specific factors for each type of investing strategies.

Combined, these factors are a way of measuring the relative performance, characteristics, behavior and overall appropriateness of a fund for inclusion into a plan as an investment option. General fund guidelines are shown in the "Scorecard Point System" table below. The Scorecard Point System is meant to be used in conjunction with our sample Investment Policy Statement, in order to help identify what strategies need to be discussed as a "watch-list" or removal candidate; what strategies continue to meet some minimum standards and continue to be appropriate; and/or identify new top-ranked strategies for inclusion into a plan.

Scorecard Point System		
Good:	9-10 Points	
Acceptable:	7-8 Points	
Watch:	5-6 Points	
Poor:	0-4 Points	

Target Date Fund strategies are investment strategies that invest in a broad array of asset classes that may include U.S. equity, international equity, emerging markets, real estate, fixed income, high yield bonds and cash (to name a few asset classes). These strategies are managed to a retirement date or life expectancy date, typically growing more conservative as that date is approached). For this type of investment strategy, the Scorecard System is focused on how well these managers can add value from asset allocation. Asset allocation is measured using our Asset allocation strategies methodology and manager selection is measured using either our Active and/or Passive strategies methodologies, depending on the underlying fund options utilized within the Target Date Fund strategy.

Risk-based strategies follow the same evaluation criteria and are evaluated on both their asset allocation and security selection.

Weightings	Target Date Fund Strategies	Maximum Points
Asset Allocation Score (Average) 50%	The individual funds in this Score average require five years of time history to be included. See Asset Allocation strategies methodology for a detailed breakdown of the Scoring criteria. Funds without the required time history are not included in the Score average. The Funds included in this average are from the Conservative, Moderate Conservative, Moderate, Moderate Aggressive and Aggressive categories, where Funds (also referred to as "vintages") are individually Scored according to their standard deviation or risk bucket.	5
Selection Score (Average) 50%	Active strategies: The individual active funds in this Score average require five years of time history to be Scored. See Active strategies methodology for a detailed breakdown of the Scoring criteria. Funds without the required time history are not included in the Score average.	5
	Passive strategies: The individual passive funds in this Score average require three years of time history to be Scored. See Passive strategies methodology for a detailed breakdown of the Scoring criteria. Funds without the required time history are not included in the Score average.	
	Total	10

Asset allocation strategies are investment strategies that invest in a broad array of asset classes that may include U.S. equity, international equity, emerging markets, real estate, fixed income, high yield bonds and cash (to name a few asset classes). These strategies are typically structured in either a risk-based format (the strategies are managed to a level of risk, e.g., conservative or aggressive) or, in an age-based format (these strategies are managed to a retirement date or life expectancy date, typically growing more conservative as that date is approached). For this type of investment strategy, the **Scorecard System** is focused on how well these managers can add value, with asset allocation being the primary driver of investment returns and the resulting Score. Multisector Bond (MSB) asset class follows the same evaluation criteria with some slightly different tolerance levels where noted. These managers are also evaluated on both their asset allocation and security selection.

Weightings	Asset Allocation Strategies	Maximum Points
Style Factors 30%	Risk Level: The fund's standard deviation is measured against the category it is being analyzed in. The fund passes if it falls within the range for that category.	1
	Style Diversity: Fund passes if it reflects appropriate style diversity (returns-based) among the four major asset classes (Cash, Fixed Income, U.S. & International Equity) for the given category. MSB funds pass if reflect some level of diversity among fixed income asset classes (Cash, U.S. Fixed Income, Non-U.S. Fixed Income and High Yield/Emerging Markets).	1
	R-Squared: Measures the percentage of a fund's returns that are explained by the benchmark. Fund passes with an R-squared greater than 90 percent. This statistic measures whether the benchmark used in the analysis is appropriate.	1
Risk/Return Factors 30%	Risk/Return: Fund passes if its risk is less than the benchmark or its return is greater than the benchmark. Favorable risk/return characteristics are desired.	1
	Up/Down Capture Analysis: Measures the behavior of a fund in up and down markets. Fund passes with an up capture greater than its down capture. This analysis measures the relative value by the manager in up and down markets.	1
	Information Ratio: Measures a fund's relative risk and return. Fund passes if ratio is greater than 0. This statistic measures the value added above the benchmark, adjusted for risk.	1
Peer Group Rankings 20%	Returns Peer Group Ranking: Fund passes if its median rank is above the 50 th percentile.	1
	Sharpe Ratio Peer Group Ranking: Fund passes if its median rank is above the 50 th percentile. This ranking ranks riskadjusted excess return.	1
Qualitative Factors 20%	Two points may be awarded based on qualitative characteristics of the fund. Primary considerations are given to manager tenure, fund expenses and strength of statistics, however, other significant factors may be considered. It is important to take into account nonquantitative factors, which may impact future performance.	2
	Total	10

Active strategies are investment strategies where the fund manager is trying to add value and outperform the market averages (for that style of investing). Typically, these investment strategies have higher associated fees due to the active involvement in the portfolio management process by the fund manager(s). For this type of investment strategy, the **Scorecard System** is trying to identify those managers who can add value on a consistent basis within their own style of investing.

Weightings	Active Strategies	Maximum Points
Style Factors 30%	Style Analysis: Returns-based analysis to determine the style characteristics of a fund over a period of time. Fund passes if it reflects the appropriate style characteristics. Style analysis helps ensure proper diversification in the Plan.	1
	Style Drift: Returns-based analysis to determine the behavior of the fund/manager over multiple (rolling) time periods. Fund passes if the fund exhibits a consistent style pattern. Style consistency is desired so that funds can be effectively monitored within their designated asset class.	1
	R-Squared: Measures the percentage of a fund's returns that are explained by the benchmark. Fund passes with an R-squared greater than 80 percent. This statistic measures whether the benchmark used in the analysis is appropriate.	1
Risk/Return Factors 30%	Risk/Return: Fund passes if its risk is less than the benchmark or its return is greater than the benchmark. Favorable risk/return characteristics are desired.	1
	Up/Down Capture Analysis: Measures the behavior of a fund in up and down markets. Fund passes with an up capture greater than its down capture. This analysis measures the relative value by the manager in up and down markets.	1
	Information Ratio: Measures a fund's relative risk and return. Fund passes if ratio is greater than 0. This statistic measures the value added above the benchmark, adjusted for risk.	1
Peer Group Rankings 20%	Returns Peer Group Ranking: Fund passes if its median rank is above the 50 th percentile.	1
	Information Ratio Peer Group Ranking: Fund passes if its median rank is above the 50 th percentile. This ranking ranks risk-adjusted excess return.	1
Qualitative Factors 20%	Two points may be awarded based on qualitative characteristics of the fund. Primary considerations are given to manager tenure, fund expenses and strength of statistics, however, other significant factors may be considered. It is important to take into account nonquantitative factors, which may impact future performance.	2
	Total	10

Passive strategies are investment strategies where the fund manager is trying to track or replicate some area of the market. These types of strategies may be broad-based in nature (e.g., the fund manager is trying to track/replicate the entire U.S. equity market like the S&P 500) or may be more specific to a particular area of the market (e.g., the fund manager may be trying to track/replicate the technology sector). These investment strategies typically have lower fees than active investment strategies due to their passive nature of investing and are commonly referred to as index funds. For this type of investment strategy, the **Scorecard System** is focused on how well these managers track and/or replicate a particular area of the market with an emphasis on how they compare against their peers.

Weightings	Passive Strategies	Maximum Points
Style & Tracking	Style Analysis: Returns-based analysis to determine the style characteristics of a fund over a period of time. Fund passes if it reflects the appropriate style characteristics. Style analysis helps ensure proper diversification in the Plan.	1
	Style Drift: Returns-based analysis to determine the behavior of the fund/manager over multiple (rolling) time periods. Fund passes if the fund exhibits a consistent style pattern. Style consistency is desired so that funds can be effectively monitored within their designated asset class.	1
Factors 40%	R-Squared: Measures the percentage of a fund's returns that are explained by the benchmark. Fund passes with an R-squared greater than 95 percent. This statistic measures whether the benchmark used in the analysis is appropriate.	1
	Tracking Error: Measures the percentage of a fund's excess return volatility relative to the benchmark. Fund passes with a tracking error less than 4. This statistic measures how well the fund tracks the benchmark.	1
	Tracking Error Peer Group Ranking: Fund passes if its median rank is above the 75th percentile.	1
Peer Group Rankings 40%	Expense Ratio Peer Group Ranking: Fund passes if its median rank is above the 75 th percentile.	1
	Returns Peer Group Ranking: Fund passes if its median rank is above the 75 th percentile.	1
	Sharpe Ratio Peer Group Ranking: Fund passes if its median rank is above the 75 th percentile.	1
Qualitative Factors 20%	Two points may be awarded based on qualitative characteristics of the fund. Primary considerations are given to fund expenses and strength of statistics, however, other significant factors may be considered. It is important to take into account nonquantitative factors, which may impact future performance.	2
	Total	10

Manager Research Methodology

The **Scorecard System™** uses an institutional approach which is comprehensive, independent, and utilizes a process and methodology that strives to create successful outcomes for plan sponsors and participants. The **Scorecard** helps direct the additional research the Investment team conducts with fund managers throughout the year. Three of the primary factors that go into the fund manager research are people, process and philosophy.

PEOPLE

Key Factors:

- Fund manager and team experience
- Deep institutional expertise
- Organizational structure
- Ability to drive the process and performance

PROCESS

Key Factors:

- Clearly defined
- Consistent application
- Sound and established
- Clearly communicated
- Successfully executed process

PHILOSOPHY

Key Factors:

- Research and ideas must be coherent and persuasive
- Strong rationale
- Logical and compelling
- Focus on identifying skillful managers

Disclosures

Index Disclosure

Performance of indexes reflects the unmanaged result for the market segment the selected stocks represent. Indexes are unmanaged and not available for direct investment.

Citigroup Corporate Bond is an index which serves as a benchmark for corporate bond performance. You cannot invest directly in an index.

Citigroup Mortgage Master is an index which serves as a benchmark for U.S. mortgage-backed securities performance.

Citigroup WGBI Index is an index which serves as a benchmark for global bond performance, including 22 different government bond markets.

Credit Suisse High Yield Index is an unmanaged, trader priced index constructed to mirror the characteristics of the high yield bond

BC (Barclays Capital) U.S. Aggregate Bond Index represents securities that are U. S., domestic, 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.

BC Credit Bond Index includes publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements. To qualify, bonds must be SEC-registered.

BC U.S. Corporate Investment Grade represents investment grade corporate securities that are U.S., domestic, taxable, and dollar denominated.

BC High Yield Corporate Bond represents below investment grade corporate securities that are U. S., domestic, taxable, and dollar denominated

BC TIPS Index includes publicly issued U.S. government treasury inflation protected securities that meet the specified maturity, liquidity and other requirements.

BC Mortgage Backed Securities covers agency mortgage-backed pass-through securities (both fixed-rate and hybrid ARMs) issued by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC).

BC Government Index includes publicly issued U.S. government securities that meet the specified maturity, liquidity and other

BarCap U.S. Aggregate 1-3 Yr. TR USD Index represents securities in the BC U.S. Aggregate Index that have maturity dates over the part 1 to 3 years

BarCap U.S. Aggregate 3-5 Yr. TR USD Index represents securities in the BC U.S. Aggregate Index that have maturity dates over the

BarCap U.S. Aggregate 5-7 Yr. TR USD Index represents securities in the BC U.S. Aggregate Index that have maturity dates over the next 5-7 years

BarCap U.S. Aggregate 7-10 Yr. TR USD Index represents securities in the BC U.S. Aggregate Index that have maturity dates over the

BarCap U.S. Aggregate 10+ Yr. TR USD Index represents securities in the BC U.S. Aggregate Index that have maturity dates over 10 years

DJW 5000 (Full Cap) Index measures the performance of all U.S. common equity securities, and serves as an index of all stock trades in the United States.

MSCI FI Emerging Markets is a rules-based index which serves as a benchmark for emerging country fixed income performance.

MSCI FI EAFE International is a rules-based index which serves as a benchmark for developed international country fixed income performance.

MSCI EAFE Index is listed for foreign stock funds (EAFE refers to Europe, Australia, and Far East). Widely accepted as a benchmark for international stock performance, it is an aggregate of 21 individual country indexes.

MSCI EAFE Large Value represents the large cap value stocks within the MSCI EAFE Index.

MSCI EAFE Large Growth represents the large cap growth stocks within the MSCI EAFE Index.

MSCI EM (Emerging Markets) Index serves as a benchmark for each emerging country. The average size of these companies is (U.S.) \$400 million, as compared with \$300 billion for those companies in the World index.

MSCI World Index is a rules-based index that serves as a benchmark for the developed global equity markets.

MSCI Europe ex UK Index is a rules-based index that serves as a benchmark for the Europe's equity markets, excluding the United Kingdom.

MSCI Pacific ex Japan Index is a rules-based index that serves as a benchmark for Asia Pacific's equity markets, excluding Japan.

MSCI United Kingdom Index is a rules-based index that serves as a benchmark for the United Kindgom's equity markets. MSCI Japan is a rules-based index that serves as a benchmark for Japan's equity markets.

Nareit All Reit Index includes all tax-qualified REITs with common shares that trade on the New York Stock Exchange, the American Stock Exchange or the NASDAQ National Market List,

3-Month T-bills (90 Day T-Bill Index) are government-backed short-term investments considered to be risk-free and as good as cash because the maturity is only three months.

Russell 1000 Growth Index is a market-capitalization weighted index of those firms in the Russell 1000 with higher price-to-book ratios and higher forecasted growth values.

Russell 1000 Value Index is a market-capitalization weighted index of those firms in the Russell 1000 with lower price-to-book ratios and lower forecasted growth values.

Russell Top 200 Growth Index is a market-capitalization weighted index of those firms in the Russell Top 200 with higher price-to-book ratios and higher forecasted growth values.

Russell Top 200 Value Index is a market-capitalization weighted index of those firms in the Russell Top 200 with lower price-to-book ratios and lower forecasted growth values.

Russell 2000 Growth Index is a market-weighted total return index that measures the performance of companies within the Russell 2000 Index having higher price-to-book ratio and higher forecasted growth values.

Russell 2000 Index consists of the smallest 2000 companies in the Russell 3000 Index, representing approximately 7% of the Russell 3000 total market capitalization.

Russell 2000 Value Index is a market-weighted total return index that measures the performance of companies within the Russell 2000 Index having lower price-to-book ratios and lower forecasted growth values.

Russell MidCap Growth Index is a market-weighted total return index that measures the performance of companies within the Russell MidCap Index having higher price-to-book ratios and higher forecasted growth values.

Russell Mid-Cap Index includes firms 201 through 1000, based on market capitalization, from the Russell 3000 Index.

Russell MidCap Value Index is a market-weighted total return index that measures the performance of companies within the Russell MidCap index having lower price-to-book ratios and lower forecasted growth values.

Russell Top 200 Index consists of the 200 Jargest securities in the Russell 3000 Index.

Russell 3000 Index is a market-capitalization weighted index, consisting of 3,000 U.S. common equity securities, reflective of the broad U.S. equity market.

Salomo n 1-10 Yr. Governments is an index which serves as a benchmark for U.S. Government bonds with maturities ranging from 1 to 10 years.

S&P 500 Index measures the performance of the largest 500 U.S. common equity securities, and serves as an index of large cap stocks traded in the United States.

S&P 1500 Energy Index measures the performance of the energy sector in the S&P 1500 Index.

 $\ensuremath{\text{S\&P}}$ 1500 Industrials measures the performance of the industrial sector in the $\ensuremath{\text{S\&P}}$ 1500 Index.

S&P 1500 Financials measures the performance of the financials sector in the S&P 1500 Index.

S&P 1500 Utilities measures the performance of the utilities sector in the S&P 1500 Index.

S&P 1500 Consumer Discretionary Index measures the performance of the consumer discretionary sector in the S&P 1500 Index.

 $S\&P\ 1500\ Consumer\ Staples\ Index\ measures\ the\ performance\ of\ the\ consumer\ staples\ sector\ in\ the\ S\&P\ 1500\ Index.$

S&P 1500 Information Technology measures the performance of the information technology sector in the S&P 1500 Index.

S&P 1500 Materials measures the performance of the materials sector in the S&P1500 Index.

S&P 1500 Health Care measures the performance of the health care sector in the S&P 1500 Index.

S&P 1500 Telecommunications Services Index measures the performance of the telecommunications services sector in the S&P 1500 Index.

Q4 2021 Disclosure

General Disclosure:

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Market indexes are included in this report only as context reflecting general market results during the period. Your advisor may provide research on funds that are not represented by such market indexes. Accordingly, no representations are made that the performance or volatility of any fund where your advisor provides research will track or reflect any particular index. Market index performance calculations are gross of management fees.

Research/Outlook Disclosure:

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Scorecard System Disclosures

Investment objectives and strategies vary among fund, and may not be similar for funds included in the same asset class.

All definitions are typical category representations. The specific share classes or accounts identified above may not be available or chosen by the Plan. Share class and account availability is unique to the client's specific circumstances. There may be multiple share classes or accounts available to the client from which to choose. All recommendations are subject to vendor/provider approval before implementation into the Plan. The performance data quoted may not reflect the deduction of additional fees, if applicable. If reflected, additional fees would reduce the performance quoted.

Performance data is subject to change without prior notice.

Performance of indexes reflects the unmanaged result for the market segment the selected stocks represent. Indexes are unmanaged and not available for direct investment.

The information used in the analysis has been taken from sources deemed to be reliable, including, third-party providers such as Markov Processes International, Morningstar, firms who manage the investments, and/or the retirement plan providers who offer the funds.

Every reasonable effort has been made to ensure completeness and accuracy; however, the final accuracy of the numbers and information is the responsibility of the investment manager(s) of each fund and/or the retirement plan providers offering these funds. Discrepancies between the figures reported in this analysis, and those reported by the actual investment managers and/or retirement plan providers, may be caused by a variety of factors, including: Inaccurate reporting by the manager/provider; Changes in reporting by the manager/provider from the time this report was prepared to a subsequent retro-active audit and corrected reporting; Differences in fees and share-classes impacting net investment return; and, Scriveners error by your advisor in preparing this report.

The enclosed Investment Due Diligence report, including the Scorecard System, is intended for plan sponsor and/or institutional use only. The materials are not intended for participant use.

The purpose of this report is to assist fiduciaries in selecting and monitoring investment options. A fund's score is meant to be used by the Plan sponsor and/or fiduciaries as a tool for selecting the most appropriate fund.

Fund scores will change as the performance of the funds change and as certain factors measured in the qualitative category change (e.g., manager tenure). Fund scores are not expected to change dramatically from each measured period, however, there is no guarantee this will be the case. Scores will change depending on the changes in the underlying pre-specified Scorecard™ factors.

Neither past performance nor statistics calculated using past performance are guarantees of a fund's future performance. Likewise, a fund's score using the **Scorecard System™** does not guarantee the future performance or style consistency of a fund.

This report was prepared with the belief that this information is relevant to the Plan sponsor as the Plan sponsor makes investment selections.

Fund selection is at the discretion of the investment fiduciaries, which are either the Plan sponsor or the Committee appointed to perform that function.

Cash Equivalents (e.g., money market fund) and some specialty funds are not scored by the Scorecard System.

The enclosed Investment Due Diligence report and Scorecard™ is not an offer to sell mutual funds. An offer to sell may be made only after the client has received and read the appropriate prospectus.

For the most current month-end performance, please contact your advisor.

The Strategy Review notes section is for informational purposes only. The views expressed here are those of your advisor and do not constitute an offer to sell an investment. An offer to sell may be made only after the client has received and read the appropriate prospectus.

Carefully consider the investment objectives, risk factors and charges and expenses of the investment company before investing. This and other information can be found in the fund's prospectus, which may be obtained by contacting your Investment Advisor/Consultant or Vendor/Provider. Read the prospectus carefully before investing.

For a copy of the most recent prospectus, please contact your Investment Advisor/Consultant or Vendor/Provider.

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Asset Class Review Dec-21

Investment objectives and strategies vary among fund, and may not be similar for funds included in the same asset class. All definitions are typical category representations. Please note that all investments are subject to market and other risk factors, which could result in loss of principal. Fixed income securities carry interest rate risk. As interest rates rise, bond prices usually fall, and vice versa. The specific share classes or accounts identified above may not be available or chosen by the plan. Share class and account availability is unique to the client's specific circumstances. There may be multiple share classes or accounts available to the client from which to choose. All recommendations are subject to vendor/provider approval before implementation into the plan. The performance data quoted may not reflect the deduction of additional fees, if applicable. If reflected, additional fees would reduce the performance quoted.

Performance data is subject to change without prior notice.

Performance of indexes reflects the unmanaged result for the market segment the selected stocks represent. Indexes are unmanaged and not available for direct investment. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index. The information used in the analysis has been taken from sources deemed to be reliable, including, third-party providers such as Markov Processes International, Morningstar, firms who manage the investments, and/or the retirement plan providers who offer the funds. Every reasonable effort has been made to ensure completeness and accuracy; however, the final accuracy of the numbers and information is the responsibility of the investment manager(s) of each fund and/or the retirement plan providers offering these funds. Discrepancies between the figures reported in this analysis, and those reported by the actual investment managers and/or retirement plan providers, may be caused by a variety of factors, including: Inaccurate reporting by the manager/provider; Changes in reporting by the manager/provider from the time this report was prepared to a subsequent retro-active audit and corrected reporting; Differences in fees and share-classes impacting net investment return; and, Scriveners error by your advisor in preparing this report.

The enclosed Investment Due Diligence report, including the Scorecard System, is intended for plan sponsor and/or institutional use only. The materials are not intended for participant use. The purpose of this report is to assist fiduciaries in selecting and monitoring investment options. A fund's score is meant to be used by the plan sponsor and/or fiduciaries as a tool for selecting the most appropriate fund. Fund scores will change as the performance of the funds change and as certain factors measured in the qualitative category change (e.g., manager tenure). Fund scores are not expected to change dramatically from each measured period, however, there is no guarantee this will be the case. Scores will change depending on the changes in the underlying pre-specified Scorecard factors.

Performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted. Likewise, a fund's score using the Scorecard System does not guarantee the future performance or style consistency of a fund. This report was prepared with the belief that this information is relevant to the plan sponsor as the plan sponsor makes investment selections. Fund selection is at the discretion of the investment fiduciaries, which are either the plan sponsor or the committee appointed to perform that function. Cash Equivalents (e.g., money market fund) and some specialty funds are not scored by the Scorecard System. The enclosed Investment Due Diligence report and Scorecard is not an offer to sell mutual funds. An offer to sell may be made only after the client has received and read the appropriate prospectus. For the most current month-end performance, please contact your advisor. The Strategy Review notes section is for informational purposes only. The views expressed here are those of your advisor and do not constitute an offer to sell an investment. An offer to sell may be made only after the client has received and read the appropriate prospectus.

Mutual funds are sold by prospectus only. Before investing, investors should carefully consider the investment objectives, risks, charges and expenses of a mutual fund. The fund prospectus provides this and other important information. Please contact your Investment Advisor/Consultant or Vendor/Provider to obtain a prospectus. Please read the prospectus carefully before investing or sending money.

For a copy of the most recent prospectus, please contact your Investment Advisor/Consultant or Vendor/Provider.

Notes

- All statistics calculated over a five year time period.
- Style analytics reflect the parameters on a returns-based style map (on a scale of 100 to -100 for each axis.) Fund passes if it plots out in the appropriate section of the style map, representing the fund's stated style.
- 3. Style drift is measured by the style drift score, which is a statistic measuring the rolling style-based analysis for a fund.
- 4. Risk is measured as the fund's standard deviation of returns.
- 5. R-squared measures the percentage of the fund's movement that is explained by the fund's benchmark (market).
- 6. Up/Down capture statistics measure the percentage of performance the fund/strategy is capturing versus the benchmark (market).
- 7. Information Ratio is a risk adjusted performance statistic measuring relative return over relative risk.
- 8. Peer group ranking statistics measure the funds median rank versus the applicable peer group universe.
- 9. Qualitative Detail: T = Tenure (qualitative score impacted negatively due to low manager tenure); E = Expenses (qualitative score impacted negatively due to higher than average expense ratio); and S = Statistics (qualitative score impacted negatively due to weak/poor strength of statistics).

Disclosures

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Market index performance calculations are gross of management and performance incentive fees. The Morningstar averages are compiled by Morningstar, Inc., an independent mutual fund research and rating service. Each Morningstar average represents a universe of funds that are similar in investment objective. You cannot invest directly in a Morningstar index.

Mutual funds are sold by prospectus only. Before investing, investors should carefully consider the investment objectives, risks, charges and expenses of a mutual fund. The fund prospectus provides this and other important information. Please contact your representative or the Company to obtain a prospectus. Please read the prospectus carefully before investing or sending money.

The Morningstar averages are compiled by Morningstar, Inc., an independent mutual fund research and rating service. Each Morningstar average represents a universe of funds that are similar in investment objective. You cannot invest directly in a Morningstar index.

Securities offered through Triad Advisors, LLC. member FINRA/SIPC Advisory Services offered through Financial Integrity Advisors, LLC. a registered investment advisor. Financial Integrity Resources Management, LLC. and Financial Integrity Advisors, LLC. are not affiliated with Triad Advisors, LLC.

