



ANNUAL REPORT FOR THE
PERAPLUS 401(K)/457 AND PERA DC PLANS

Transforming to connect. Connecting to serve.

For the Year Ended December 31, 2020

PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION OF COLORADO



July 2021

Dear Plan Participant:

I am pleased to present the *Annual Report for the PERAPlus 401(k)/457 and PERA DC Plans*, collectively known as the Capital Accumulation Plans (CAPs), for the year ended December 31, 2020. Inside, you will find the financial statements and rates of return for the funds.



Ron Baker
Executive Director

The *Annual Report* for the CAPs is an unaudited summary of the fiduciary net position and changes in fiduciary net position for the CAPs. CliftonLarsonAllen LLP, the independent accounting firm which conducted the annual PERA audit that includes the CAPs, gave an unqualified opinion on the financial statements in Colorado PERA's 2020 *Comprehensive Annual Financial Report (Annual Report)*. A copy of the *Annual Report* is available on PERA's website at www.copera.org.

On December 31, 2020:

- The PERAPlus 401(k) Plan had a fiduciary net position of \$4,167,830,000 with 68,647 participant accounts.
- The PERAPlus 457 Plan had a fiduciary net position of \$1,144,314,000 with 19,438 participant accounts.
- The PERA DC Plan had a fiduciary net position of \$323,944,000 with 7,264 participant accounts.

Voya Institutional Plan Services, LLC (Voya) is the service provider for the PERAPlus 401(k)/457 and PERA DC Plans.

Plan Changes

The following changes were made to the CAPs in 2020:

- The PERAAdvantage 2065 Fund was added to the PERAAdvantage Target Retirement Date Fund series in the first quarter of 2020.
- The CAP plan documents were amended in 2020 in accordance with federal legislation enacted in December 2019 (the SECURE Act) and March 2020 (the CARES Act). The amendments included changes to distributions, including required minimum distributions, birth or adoption distributions, and coronavirus-related distributions, as well as coronavirus-related plan loan relief.

PERAPlus 401(k) Plan Design

The 401(k) Plan was established on January 1, 1985, under state law and Section 401(k) of the Internal Revenue Code (IRC) and is amended periodically. A copy of *PERA's 401(k) and Defined Contribution Plan and Trust Document* is available from PERA. Plan participation is voluntary and contributions are separate from those that PERA members make to their Defined Benefit member accounts, and the PERAPlus 457 and PERA DC Plans. Investment options in the PERAPlus 401(k) Plan are identical to those in the PERAPlus 457 and PERA DC Plans.

Continued on the next page

PERAPlus 457 Plan Design

The 457 Plan was established by PERA on July 1, 2009, under state law and Section 457 of the IRC and is amended periodically. It is a continuation of the State of Colorado Deferred Compensation Plan. A copy of *The PERA Deferred Compensation Plan* document is available from PERA. Plan participation is voluntary and contributions are separate from those that PERA members make to their Defined Benefit member accounts, and the PERAPlus 401(k) and PERA DC Plans. Investment options in the PERAPlus 457 Plan are identical to those in the PERAPlus 401(k) and PERA DC Plans.

PERA Defined Contribution (DC) Plan Design

PERA's DC Plan was established on January 1, 2006, under state law and Section 401(a) of the IRC, and is amended periodically. Its purpose is to offer a defined contribution alternative to the PERA Defined Benefit Plan. A copy of *PERA's 401(k) and Defined Contribution Plan and Trust Document* is available from PERA. Investment options in the PERA DC Plan are identical to those in the PERAPlus 401(k)/457 Plans. DC Plan participant contributions are separate from those that are made to the PERAPlus 401(k)/457 Plans.

More Information

If you have additional questions about the PERAPlus 401(k)/457 or PERA DC Plans, call 1-800-759-7372 and select the PERAPlus/DC Plan option, or access the Plan websites through www.copera.org.

Ron Baker
Colorado PERA Executive Director

PLAN FEES

(As of March 31, 2021)

The CAPs charge an administrative flat fee of \$1.00 per month to all participants. If you participate in multiple plans, you will pay \$1.00 per month for each plan.

Participants will also pay a Plan administration asset-based fee of up to 0.03% on each underlying PERAdvantage portfolio. This fee is automatically built into the total asset-based fee as shown in the chart below. Fees reduce the investment option's rate of return (see page 5). There are no other shareholder-type fees that apply.

Fund	Total Asset-Based Fee	
	Percentage	Per \$1,000
PERAdvantage Capital Preservation Fund	0.24%	\$2.40
PERAdvantage Fixed Income Fund	0.21%	\$2.10
PERAdvantage Real Return Fund	0.20%	\$2.00
PERAdvantage Socially Responsible Investment (SRI) Fund	0.22%	\$2.20
PERAdvantage U.S. Large Cap Stock Fund	0.08%	\$0.80
PERAdvantage U.S. Small and Mid Cap Stock Fund	0.18%	\$1.80
PERAdvantage International Stock Fund	0.29%	\$2.90
PERAdvantage Target Retirement Date Funds	0.10%	\$1.00

If you have a Self-Directed Brokerage Account (SDBA), you will pay an annual \$50 Self-Directed Brokerage fee. Additional trading fees charged by TD Ameritrade may apply. There is no asset-based fee charged because PERA receives revenue sharing from TD Ameritrade. Investments with revenue sharing reduce the asset-based administrative fee by the amount of such revenue sharing.

There is a \$75 nonrefundable loan application fee for each loan you take from your PERAPlus 401(k) or PERAPlus 457 Plan account. The interest rate for loans is the prime rate as quoted in *The Wall Street Journal* on the last business day of the prior month, plus 1%.

If you enroll in the Voya Professional Management program, you will pay a fee of approximately \$4.17 per every \$10,000 in your account. Fees are proportionately lower for accounts with balances over \$50,000.

A complete fee schedule is available on the Plan websites, accessible through www.copera.org. Fees and expenses are only one of several factors that participants should consider when making investment decisions. The cumulative effect of fees and expenses can substantially reduce the growth of a participant's account.

QUALIFIED DEFAULT INVESTMENT ALTERNATIVE

Plan participants who do not actively direct how their contributions are invested will have their money automatically invested in the Plan's Qualified Default Investment Alternative (QDIA), the PERAdvantage Target Retirement Date fund based on their date of birth and expected retirement at age 65 (see table below). Participants may move all or a portion of their money out of the QDIA into any other fund(s) in the Plan. They may also choose to have future contributions invested in another fund.

Fund	Date of Birth Range
PERAdvantage Income Fund	December 31, 1957, or earlier
PERAdvantage 2025 Fund	January 1, 1958–December 31, 1962
PERAdvantage 2030 Fund	January 1, 1963–December 31, 1967
PERAdvantage 2035 Fund	January 1, 1968–December 31, 1972
PERAdvantage 2040 Fund	January 1, 1973–December 31, 1977
PERAdvantage 2045 Fund	January 1, 1978–December 31, 1982
PERAdvantage 2050 Fund	January 1, 1983–December 31, 1987
PERAdvantage 2055 Fund	January 1, 1988–December 31, 1992
PERAdvantage 2060 Fund	January 1, 1993–December 31, 1997
PERAdvantage 2065 Fund	January 1, 1998, or later

RATES OF RETURN

The rates of return presented in this report are as of December 31, 2020, and are net of investment manager fees and asset-based Plan administrative fees. Current returns are available on the Plan websites. Unless indicated otherwise, these funds commenced as of October 1, 2011. As of October 1, 2011, performance is calculated using net asset values (NAV). Actual historic performance prior to October 1, 2011, does not exist.

Simulated Performance

The simulated performance, presented on page 5 in italics for the 10-year returns, is intended to provide an indication of how the funds may have performed in the past. The simulated performance is based on the composite performance of institutional accounts managed by the managers with investment strategies similar to those expected to be implemented by the managers in the funds or on the actual historical returns of the underlying portfolios used by the fund. To produce the simulated returns, the managers' composite returns were combined in accordance with the target asset allocation and rebalanced quarterly. Past performance, whether actual or simulated, does not guarantee future results.

PERAdvantage Capital Preservation Fund

The PERAdvantage Capital Preservation Fund is a fund for which the return is fixed. The return is an annualized crediting rate that is established at the beginning of each quarter and credited to the participant's account on a daily basis. You may access the most recent crediting rate on the Plan websites. In certain extreme circumstances, there may be a limit on your ability to withdraw from this fund or you may be limited to withdrawing your funds at the lesser of book value or market value. Extreme circumstances could include, but are not limited to, fund subscription and redemption activity, a sharp decline in the market value of the fixed income investments, or a deterioration in the credit worthiness of the stable value provider.

RATES OF RETURN *(continued)*

Fund/Benchmark	Year 2020	3-Year	5-Year	10-Year
PERAdvantage Capital Preservation Fund	2.2%	2.2%	2.0%	<i>N/A</i>
ICE BofAML U.S. 3-Month Treasury Bill Index ¹	0.7%	1.8%	1.8%	N/A
PERAdvantage Fixed Income Fund	8.7%	5.7%	4.7%	4.0%
Bloomberg Barclays U.S. Agg Bond Index	7.5%	5.3%	4.4%	3.8%
PERAdvantage Real Return Fund	6.1%	4.0%	5.9%	2.3%
Real Return Custom Index ²	5.4%	3.8%	5.9%	2.4%
PERAdvantage SRI Fund	15.1%	9.7%	9.5%	7.6%
SRI Custom Index ³	14.8%	9.8%	9.5%	8.2%
PERAdvantage U.S. Large Cap Stock Fund	21.6%	15.7%	15.9%	14.1%
MSCI USA Large Cap Index ⁴	20.8%	14.6%	15.5%	14.0%
PERAdvantage U.S. Small and Mid Cap Stock Fund	14.2%	8.7%	11.6%	11.0%
MSCI USA SMID Cap Index ⁵	19.4%	11.4%	13.7%	12.0%
PERAdvantage International Stock Fund	19.5%	7.6%	11.1%	6.8%
MSCI ACWI ex USA Index	10.7%	4.9%	8.9%	4.9%
PERAdvantage Income Fund	11.9%	7.7%	7.8%	6.1%
BlackRock LifePath [®] Retirement Index	11.8%	7.7%	7.8%	6.2%
PERAdvantage 2025 Fund	12.2%	8.1%	9.0%	7.2%
BlackRock LifePath [®] 2025 Index	12.0%	8.1%	9.0%	7.3%
PERAdvantage 2030 Fund	12.9%	8.7%	9.8%	7.8%
BlackRock LifePath [®] 2030 Index	12.7%	8.6%	9.8%	7.9%
PERAdvantage 2035 Fund	13.5%	9.2%	10.6%	8.3%
BlackRock LifePath [®] 2035 Index	13.4%	9.2%	10.5%	8.4%
PERAdvantage 2040 Fund	14.1%	9.7%	11.3%	8.8%
BlackRock LifePath [®] 2040 Index	14.0%	9.6%	11.2%	8.8%
PERAdvantage 2045 Fund	14.8%	10.1%	11.8%	9.1%
BlackRock LifePath [®] 2045 Index	14.6%	9.9%	11.7%	9.2%
PERAdvantage 2050 Fund	15.2%	10.2%	12.0%	9.4%
BlackRock LifePath [®] 2050 Index	15.1%	10.1%	11.9%	9.4%
PERAdvantage 2055 Fund	15.3%	10.3%	12.0%	9.5%
BlackRock LifePath [®] 2055 Index	15.2%	10.2%	11.9%	9.5%
PERAdvantage 2060 Fund ⁶	15.3%	10.3%	12.0%	<i>N/A</i>
BlackRock LifePath [®] 2060 Index ⁶	15.2%	10.2%	11.9%	N/A
PERAdvantage 2065 Fund ⁷	N/A	N/A	N/A	<i>N/A</i>
BlackRock LifePath [®] 2065 Index ⁷	N/A	N/A	N/A	N/A

Performance is net of administrative and management fees and calculated using time-weighted net asset values. Returns for periods greater than one year are annualized. Performance prior to January 2020, was calculated by RVK, Inc. and by Callan LLC thereafter, and begins the first full month after initial funding.

¹ ICE BofAML U.S. 3-Month Treasury Bill Index represents the Hueler Index through December 2019 and the ICE BofAML U.S. 3-Month Treasury Bill Index from January 2020 forward.

² 70% State Street Real Asset Strategy DC Index/30% Bloomberg Barclays U.S. TIPS Index.

³ 60% MSCI World ESG Leaders/40% Bloomberg Barclays U.S. Gov't Bond through September 2019, 60% MSCI ACWI ESG Focus/40% Bloomberg Barclays U.S. Gov't Bond through December 2019, 60% MSCI ACWI ESG Focus/40% Bloomberg Barclays U.S. Aggregate thereafter.

⁴ MSCI USA Large Cap Index represents the Russell 1000 Index through December 2018 and the MSCI USA Large Cap Index from January 2019 forward.

⁵ MSCI USA SMID Cap Index represents the Russell 2500 Index through December 2018 and the MSCI USA SMID Cap Index from January 2019 forward.

⁶ Effective February 2015, the PERAdvantage 2060 Fund was added to the PERAdvantage Target Date Fund series.

⁷ Effective March 2020, the PERAdvantage 2065 Fund was added to the PERAdvantage Target Date Fund series.

Note: The 10-year returns in italics reflect simulated performance.

STATEMENTS OF FIDUCIARY NET POSITION

As of December 31, 2020 (Unaudited)

(Dollars in Thousands)

ASSETS

Investments, at fair value	401(k) Plan	457 Plan	DC Plan
PERAdvantage Capital Preservation Fund	\$318,768	\$167,051	\$14,570
PERAdvantage Fixed Income Fund	362,339	101,736	16,598
PERAdvantage Real Return Fund	20,821	8,788	1,520
PERAdvantage SRI Fund	23,102	8,616	1,596
PERAdvantage U.S. Large Cap Stock Fund	1,765,007	297,262	59,229
PERAdvantage U.S. Small and Mid Cap Stock Fund	208,928	129,279	26,835
PERAdvantage International Stock Fund	357,194	120,287	29,019
PERAdvantage Income Fund	259,267	60,145	14,821
PERAdvantage 2025 Fund	182,411	48,383	12,739
PERAdvantage 2030 Fund	154,212	39,984	15,829
PERAdvantage 2035 Fund	137,193	38,718	15,661
PERAdvantage 2040 Fund	101,371	30,025	20,207
PERAdvantage 2045 Fund	71,746	20,370	31,185
PERAdvantage 2050 Fund	50,807	12,640	26,481
PERAdvantage 2055 Fund	31,409	6,275	18,180
PERAdvantage 2060 Fund	10,613	5,502	5,004
PERAdvantage 2065 Fund	977	609	89
TD Ameritrade Self-Directed Brokerage Account	41,991	31,548	7,340
Total investments, at fair value	4,098,156	1,127,218	316,903
Other plan assets			
Cash and short-term investments	8,860	947	4,389
Interest receivable	41	5	4
Benefit receivable	7,117	4,952	2,885
Participant loans receivable	54,999	11,579	—
Total other plan assets	71,017	17,483	7,278
Total assets	4,169,173	1,144,701	324,181
LIABILITIES			
Amount due to/from combined investment fund	(601)	(179)	(105)
Accounts payable	(81)	(40)	(29)
Other liabilities	(661)	(168)	(103)
Total liabilities	(1,343)	(387)	(237)
Fiduciary net position restricted for defined contribution pension plans, and held in trust for deferred compensation benefits	\$4,167,830	\$1,144,314	\$323,944

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

For the Year Ended December 31, 2020 (Unaudited)

(Dollars in Thousands)

ADDITIONS	401(k) Plan	457 Plan	DC Plan
Contributions			
Employers	\$5,917	\$40	\$16,780
Members	140,656	70,764	15,753
Total contributions	146,573	70,804	32,533
Investment income adjusted for fair value appreciation or (depreciation)			
PERAdvantage Capital Preservation Fund	6,661	3,583	299
PERAdvantage Fixed Income Fund	27,076	7,399	1,142
PERAdvantage Real Return Fund	1,104	486	89
PERAdvantage SRI Fund	2,798	1,102	192
PERAdvantage U.S. Large Cap Stock Fund	316,806	53,292	10,567
PERAdvantage U.S. Small and Mid Cap Stock Fund	25,119	15,741	3,405
PERAdvantage International Stock Fund	59,681	20,290	4,954
PERAdvantage Income Fund	27,328	6,409	1,561
PERAdvantage 2025 Fund	19,583	5,139	1,394
PERAdvantage 2030 Fund	17,094	4,630	1,829
PERAdvantage 2035 Fund	16,408	4,615	1,847
PERAdvantage 2040 Fund	12,545	3,751	2,424
PERAdvantage 2045 Fund	9,316	2,674	4,145
PERAdvantage 2050 Fund	6,742	1,650	3,599
PERAdvantage 2055 Fund	4,195	851	2,537
PERAdvantage 2060 Fund	1,404	759	709
PERAdvantage 2065 Fund	148	66	8
TD Ameritrade Self-Directed Brokerage Account	5,750	4,774	1,138
Short-term interest income	93	13	22
Net investment income	\$559,851	\$137,224	\$41,861
Other additions			
Revenue sharing	21	12	2
Participant loan interest	2,265	533	—
Forfeitures	—	—	11
Miscellaneous	116	8	3
Total other additions	2,402	553	16
Total additions	708,826	208,581	74,410
DEDUCTIONS			
Benefits paid	(207,260)	(51,559)	(15,100)
Plan expenses	(4,797)	(1,530)	(1,159)
Other deductions	(1,746)	(777)	(147)
Total deductions	(213,803)	(53,866)	(16,406)
Net increase in fiduciary net position	\$495,023	\$154,715	\$58,004

ANALYSIS OF PLAN ADMINISTRATIVE INCOME/(EXPENSE)

For the Year Ended December 31, 2020 (Unaudited)

(Dollars in Thousands)

	401(k) Plan	457 Plan	DC Plan
Plan income			
Administrative fees	\$2,764	\$721	\$205
Loan and other fees	83	41	10
Short-term interest income from operations	93	13	22
Revenue sharing	21	12	2
Forfeitures	—	—	1,131
Total plan income	2,961	787	1,370
Plan expense			
Consulting fees	(147)	(40)	(11)
Recordkeeping fees	(935)	(471)	(347)
Custodial fees	(186)	(51)	(14)
Other expense	(4)	—	—
PERA administrative expense	(3,529)	(968)	(787)
Total plan expense	(4,801)	(1,530)	(1,159)
Net plan administrative income/(expense)	(\$1,840)	(\$743)	\$211

REVIEWING YOUR INVESTMENTS

You may review or change your investment mix by calling 1-800-759-7372 and selecting the PERAPlus/DC Plan option or by accessing your account online. To access your account online, go to www.copera.org and click the "Member/Retiree Login" button. After you enter your User ID and password and gain access to your account, click on either "PERAPlus 401(k) Account Access," "PERAPlus 457 Account Access," or "PERA DC Plan Account Access" on the top of the page or under the "Benefit Programs" menu. Once on the Plan's website, you may generate a statement, which will show your Personal Investment Performance and the funds in which you are invested. To help you better understand the investment options available to you, this *Annual Report* includes the fund fact sheets (beginning on page 9) as of December 31, 2020, for all funds currently available. Current fund fact sheets can be found on the Plan websites. Disclosure information applicable to all PERAdvantage funds is found below. Risk definitions can be found on the Plan websites.

SELF-DIRECTED BROKERAGE ACCOUNT (SDBA)

The SDBA allows you to select from numerous mutual funds and/or other types of securities, such as stocks and bonds, for an additional fee (see page 3). This *Annual Report* does not include rates of return on the investments available to participants using the SDBA with TD Ameritrade. More information can be found on the Plan websites.

FUND FACT SHEETS

PERAdvantage Capital Preservation Fund



Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
ICE BofAML U.S. 3-Mo T-Bill Idx	Low	10/1/2011	\$500.2	0.03%	0.21%	0.24%

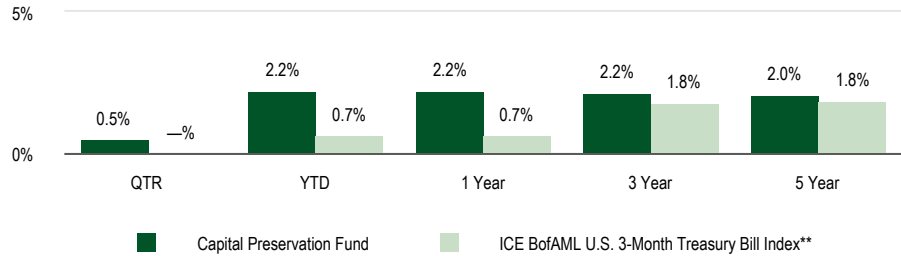
4Q

2020

Investment Objective & Strategy

The fund seeks to provide consistent investment income with a stable net asset value primarily by investing in a portfolio of high-quality, medium-term fixed income securities. This fund invests in securities issued by the U.S. Government or one of its agencies, including agency mortgage bonds, as well as high-grade corporate bonds. Since the underlying investments fluctuate in market value, the portfolio is paired with an insurance contract to provide a more stable return.

Performance as of 12/31/2020



Principal Risks

Loss of Money, Not FDIC Insured, Active Management, Suitability, Issuer, Non-diversification, U.S. Government Obligations, Mortgage-Backed and Asset-Backed Securities, Fixed Income Securities

Annual Returns

	2020	2019	2018	2017	2016
Capital Preservation Fund	2.2%	2.3%	2.0%	1.9%	1.9%
ICE BofAML U.S. 3-Mo T-Bill Index**	0.7%	2.5%	2.2%	2.0%	1.8%

Fund Information

Subadvisor Target Allocation

Great West Stable Value 100%

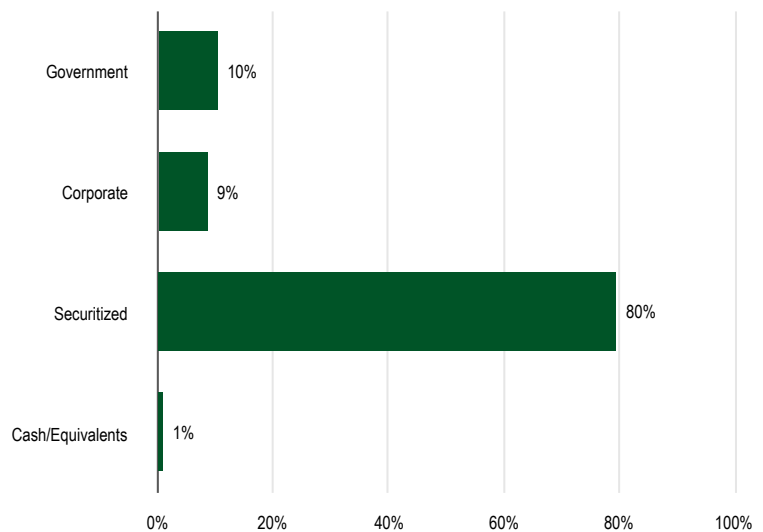
Portfolio Metrics

Avg Eff Duration	2.89
Avg Eff Maturity	3.78
Avg Credit Quality	AA+
Avg Wtd Coupon	2.43
Avg Wtd Price	105.09

Credit Quality

AAA	21.2%
AA	73.4%
A	4.6%
BBB	0.8%
High Yield	0.0%

Sectors



*As of previous quarter end

**ICE BofAML U.S. 3-Month Treasury Bill Index represents the Hueler Index through 12/31/19 and the ICE BofAML U.S. 3-Month Treasury Bill Index from 1/1/20 forward.

PERAdvantage Fixed Income Fund



Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
BB Barclays US Agg Bond Idx	Low	10/1/2011	\$480.1	0.03%	0.18%	0.21%

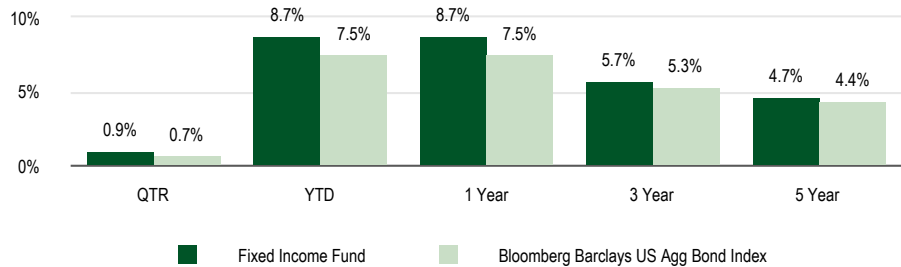
4Q

2020

Investment Objective & Strategy

The fund seeks to generate income, preserve capital, and provide long-term capital appreciation by investing in a diversified portfolio of fixed income instruments. This fund primarily invests in investment grade debt securities, but may invest a portion of its assets in high-yield securities. The fund may invest in derivative instruments or in mortgage- or asset-backed securities. The fund combines active and passive management.

Performance as of 12/31/2020



Principal Risks

Loss of Money, Not FDIC Insured, Active Management, Index Correlation/Tracking Error, Suitability, Multimanaged, U.S. Government Obligations, Mortgage-Backed and Asset-Backed Securities, Fixed Income Securities

Annual Returns

	2020	2019	2018	2017	2016
Fixed Income Fund	8.7%	9.0%	(0.2)%	3.7%	2.6%
BB Barclays US Agg Bond Index	7.5%	8.7%	0.0%	3.5%	2.7%

Fund Information

Subadvisors

Target Allocation

Wells Fargo Asset Management	50%
BlackRock Core Alpha	25%
BlackRock Index	25%

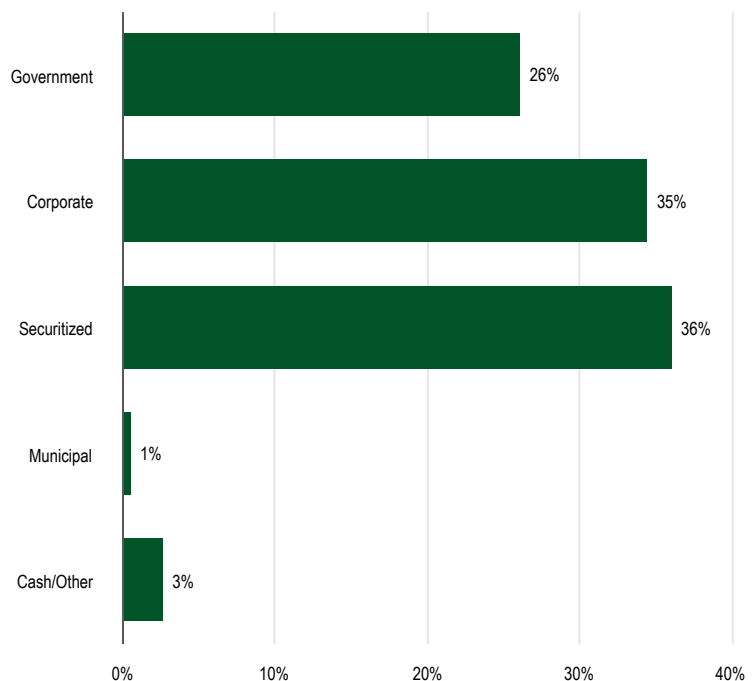
Portfolio Metrics

Avg Eff Duration	6
Avg Eff Maturity	7.3
Avg Credit Quality	AA-
Avg Wtd Coupon	2.8
Avg Wtd Price	109.8
Total # of Bond Holdings	12,083

Credit Quality

AAA	60.4%
AA	3.1%
A	13.3%
BBB	20.5%
High Yield	2.9%
Not Rated	0.2%

Sectors



*As of previous quarter end

PERAdvantage Real Return Fund



Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
Real Return Custom Index	Moderate	10/1/2011	\$31.1	0.03%	0.17%	0.20%

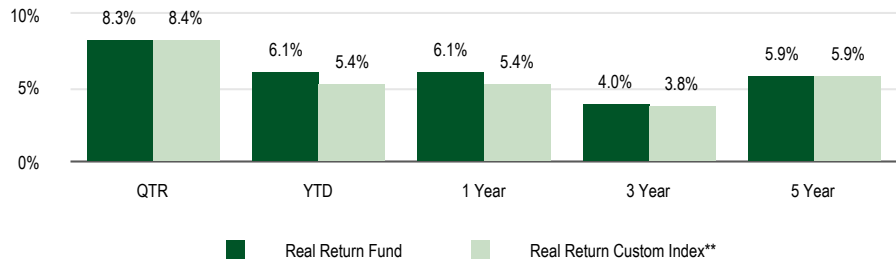
4Q

2020

Investment Objective & Strategy

The fund seeks to provide broad exposure to real assets and Treasury Inflation Protected Securities (TIPS) and to produce a return over a full market cycle that exceeds the rate of inflation. This fund invests in U.S. TIPS, Real Estate Investment Trusts (REITs), commodities, and global natural resources and infrastructure stocks.

Performance as of 12/31/2020



Principal Risks

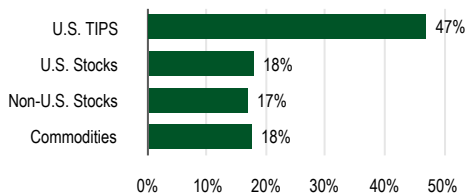
Loss of Money, Not FDIC Insured, Active Management, Index Correlation/Tracking Error, Suitability, Multimanager, Equity Securities, Foreign Securities, Inflation-Protected Securities, Commodity, Real Estate

Annual Returns

	2020	2019	2018	2017	2016
Real Return Fund	6.1%	12.0%	(5.5)%	6.8%	11.1%
Real Return Custom Index**	5.4%	12.2%	(5.3)%	6.9%	11.4%

Fund Information

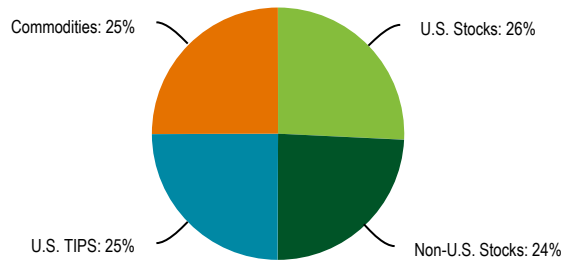
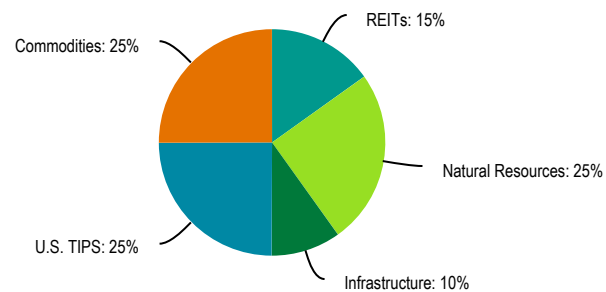
Portfolio Analysis



Subadvisors	Target Allocation
SSgA Real Assets Strategy	70%
SSgA U.S. TIPS Index	30%

Top 10 Real Assets Holdings	% of Assets
Prologis Inc REIT	1.4%
Corteva Inc	1.4%
Archer Daniels Midland	1.4%
Nutrien Ltd	1.3%
Exxon Mobil Corp	1.1%
Chevron Corp	1.1%
BHP Group Ltd	1.0%
U.S. TIPS 01/23	0.9%
U.S. TIPS 07/23	0.9%
U.S. TIPS 01/25	0.9%
Total # of Stock Holdings	395
Total # of Bond Holdings	44

Real Assets Strategy



*As of previous quarter end

**70% State Street Real Asset Strategy DC Index (25% Bloomberg Roll Select Commodity Index, 25% S&P Global LargeMidCap Commodity and Resources Index, 10% S&P Global Infrastructure Index, 15% Dow Jones U.S. Select REIT Index, 25% Bloomberg Barclays U.S. TIPS Index) / 30% Bloomberg Barclays U.S. TIPS Index

Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
SRI Custom Index	Moderate	10/1/2011	\$33.3	0.03%	0.19%	0.22%

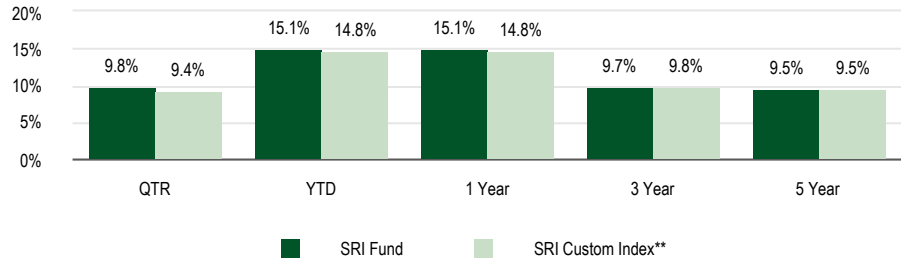
4Q

Investment Objective & Strategy

The fund seeks to invest in a portfolio of developed and emerging market stocks screened on environmental, social, and governance (ESG) factors, and fixed income securities across the investment grade spectrum that demonstrate ESG leadership. The equity portion seeks to replicate the return of the MSCI ACWI ESG Focus Index. The fixed income portion invests in U.S. dollar denominated securities and may invest a significant portion of its assets in corporate bonds or mortgage-backed securities.

2020

Performance as of 12/31/2020



Principal Risks

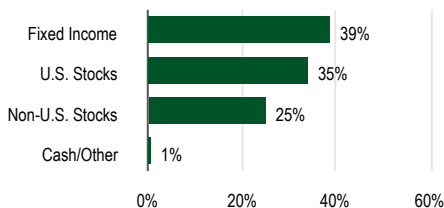
Loss of Money, Not FDIC Insured, Active Management, Index Correlation/Tracking Error, Suitability, Multimanaged, Equity Securities, Foreign Securities, U.S. Government Obligations, Mortgage-Backed and Asset-Backed Securities

Annual Returns

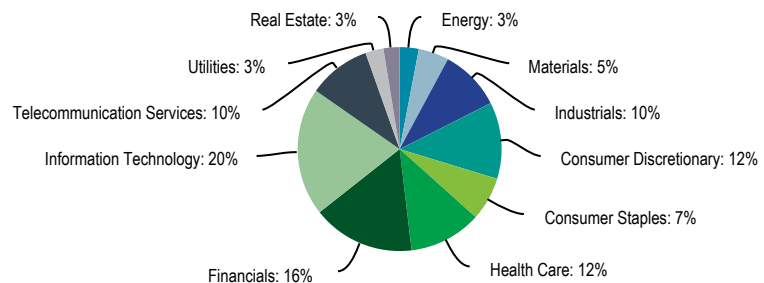
	2020	2019	2018	2017	2016
SRI Fund	15.1%	19.6%	(4.0)%	13.4%	5.1%
SRI Custom Index**	14.8%	20.2%	(4.1)%	13.2%	4.9%

Fund Information

Portfolio Analysis



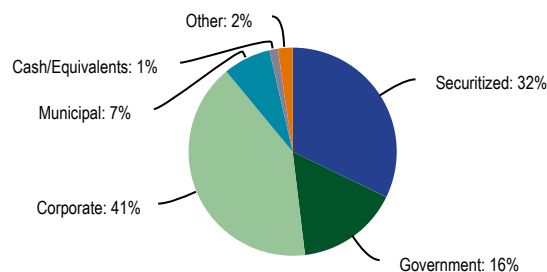
Equity Sectors



Subadvisors	Target Allocation
BlackRock ACWI ESG Focus Index	60%
TIAA-CREF Core Impact Bond	40%

Top 10 Equity Holdings	% of Assets
Apple Inc	3.9%
Microsoft Corp	2.8%
Amazon.com Inc	2.4%
Alphabet Inc Class C	1.2%
Facebook Inc A	1.1%
Tesla Inc	0.9%
Taiwan Semiconductor Manufacturing	0.9%
Alibaba Group Holding Ltd ADR	0.8%
Tencent Holdings Ltd	0.8%
Johnson & Johnson	0.7%
Total # of Stock Holdings	604
Total # of Bond Holdings	996

Fixed Income Sectors



*As of previous quarter end

**60% S&P 500/40% Bloomberg Barclays U.S. Aggregate through 12/31/12, 60% MSCI World ESG Leaders/40% Bloomberg Barclays U.S. Gov't Bond through 9/30/2019, 60% MSCI ACWI ESG Focus/40% Bloomberg Barclays U.S. Gov't Bond through 12/31/2019, 60% MSCI ACWI ESG Focus/40% Bloomberg Barclays U.S. Aggregate thereafter

PERAdvantage U.S. Large Cap Stock Fund



Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin. Fee*	Inv. Mgmt. Fee*	Total Fee*
MSCI USA Large Cap Index	High	10/1/2011	\$2,122.6	0.03%	0.05%	0.08%

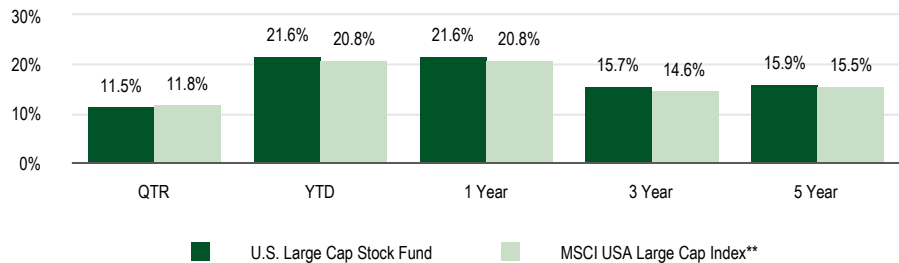
4Q

2020

Investment Objective & Strategy

The fund seeks to provide long-term capital appreciation and dividend income primarily by investing in the common stock of companies located in the United States with large market capitalizations. This fund invests in a wide array of U.S. stocks with market capitalizations similar to those found in the MSCI USA Large Cap Index. The fund combines active and passive management.

Performance as of 12/31/2020



Principal Risks

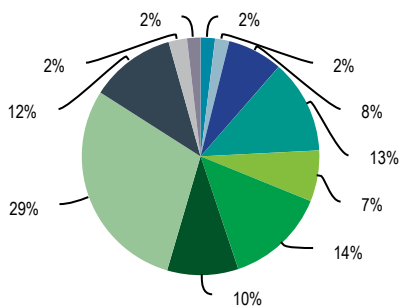
Loss of Money, Not FDIC Insured, Active Management, Index Correlation/Tracking Error, Suitability, Multimanager, Equity Securities

Annual Returns

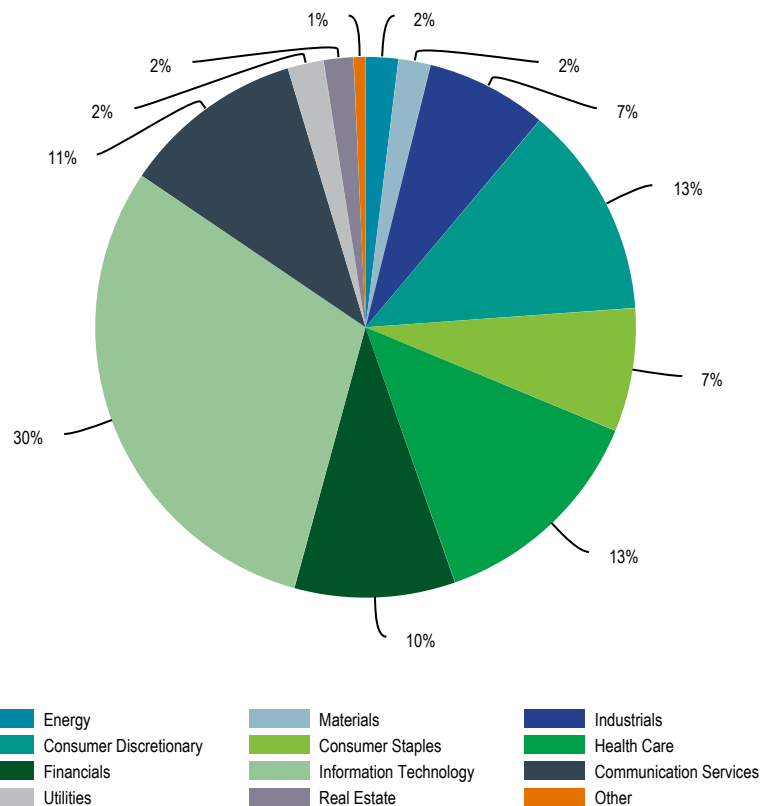
	2020	2019	2018	2017	2016
U.S. Large Cap Stock Fund	21.6%	33.3%	(4.5)%	22.8%	10.1%
MSCI USA Large Cap Index**	20.8%	31.0%	(4.8)%	21.7%	12.1%

Fund Information

Benchmark Sectors



Fund Sectors



Subadvisors

Subadvisor	Target Allocation
PERA Large Cap Index	60%
PERA Large Cap Core	40%

Top 10 Holdings

Top 10 Holdings	% of Assets
Apple Inc	8.3%
Microsoft Corp	6.0%
Amazon.com Inc	5.3%
Alphabet Inc	4.2%
Facebook Inc	2.8%
JPMorgan Chase & Co	1.7%
Visa Inc	1.7%
Johnson & Johnson	1.6%
UnitedHealth Group Inc	1.6%
Mastercard Inc	1.5%
Total # of Stock Holdings	293

*As of previous quarter end

**MSCI USA Large Cap Index represents the Russell 1000 Index through 12/31/18 and the MSCI USA Large Cap Index from 1/1/19 forward.

Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
MSCI USA SMID Cap Index	High	10/1/2011	\$365.4	0.03%	0.16%	0.19%

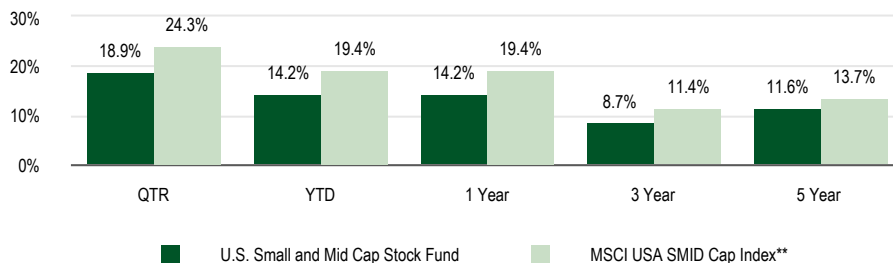
4Q

2020

Investment Objective & Strategy

The fund seeks to provide long-term capital appreciation and dividend income primarily by investing in the common stock of companies located in the United States with small and mid-market capitalizations. This fund invests in a wide array of U.S. stocks with market capitalizations similar to those found in the MSCI USA SMID Cap Index.

Performance as of 12/31/2020



Principal Risks

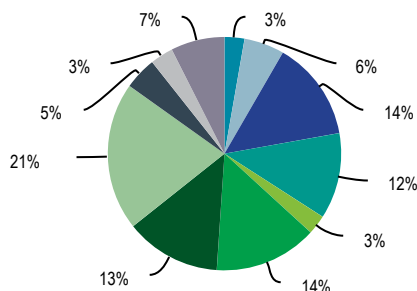
Loss of Money, Not FDIC Insured, Active Management, Index Correlation/Tracking Error, Suitability, Multimanager, Equity Securities

Annual Returns

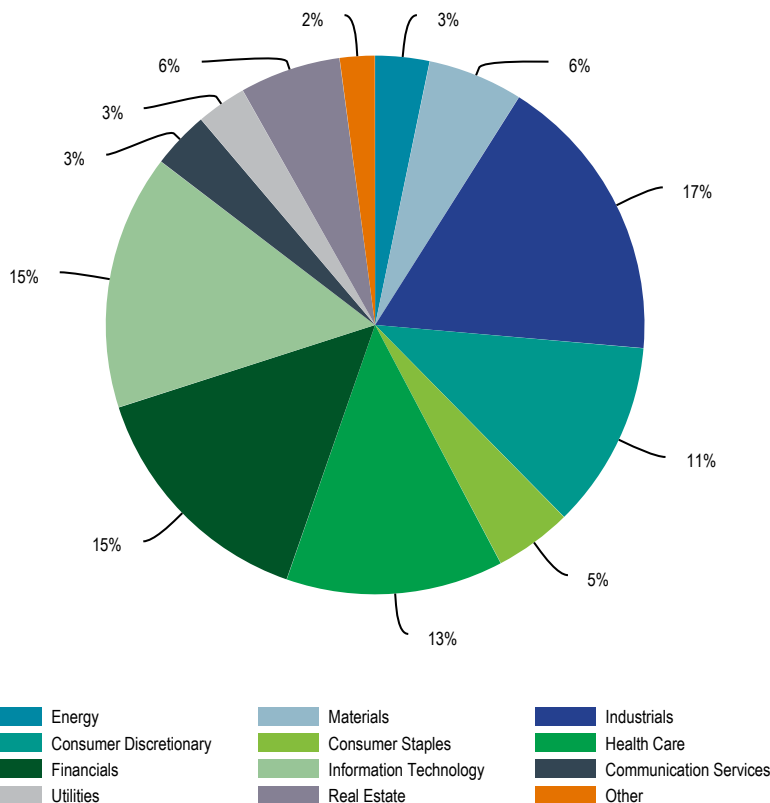
	2020	2019	2018	2017	2016
U.S. Small and Mid Cap Stock Fund	14.2%	28.4%	(12.5)%	15.9%	16.7%
MSCI USA SMID Cap Index**	19.4%	28.5%	(10.0)%	16.8%	17.6%

Fund Information

Benchmark Sectors



Fund Sectors



Subadvisors

Subadvisors	Target Allocation
PERA Small Cap Core	50%
Dimensional Fund Advisors Mid Cap Core	50%

Top 10 Holdings

Top 10 Holdings	% of Assets
Chegg Inc	1.4%
Sailpoint Technologies Holdings Inc	1.1%
Graco Inc	1.1%
Charles River Laboratories Intl	1.0%
Exponent Inc	1.0%
Quaker Chemical Corp	0.9%
Pool Corp	0.9%
Generac Holdings Inc	0.9%
ACI Worldwide Inc	0.9%
Freshpet Inc	0.9%
Total # of Stock Holdings	368

*As of previous quarter end

**MSCI USA SMID Cap Index represents the Russell 2500 Index through 12/31/18 and the MSCI USA Small Cap Index from 1/1/19 forward.

Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
MSCI ACWI Ex-USA Index	High	10/1/2011	\$506.8	0.03%	0.27%	0.30%

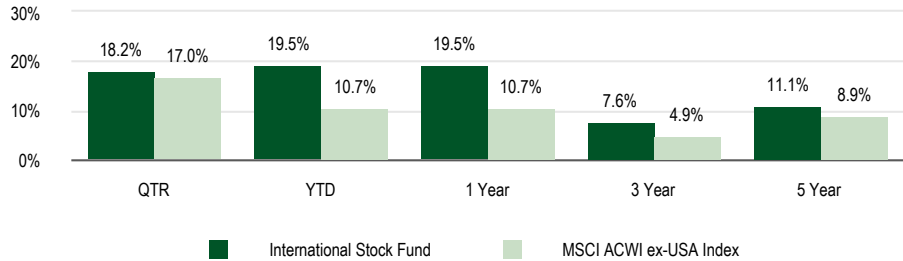
4Q

2020

Investment Objective & Strategy

The fund seeks to provide long-term capital appreciation and dividend income primarily by investing in the common stock of companies located outside the United States. This fund invests in a wide array of international stocks similar to those found in the MSCI All Country World Index (ACWI) ex-USA Index.

Performance as of 12/31/2020



Principal Risks

Loss of Money, Not FDIC Insured, Active Management, Index Correlation/Tracking Error, Suitability, Multimanager, Equity Securities, Foreign Securities

Annual Returns

	2020	2019	2018	2017	2016
International Stock Fund	19.5%	24.5%	(16.1)%	27.4%	6.5%
MSCI ACWI Ex-USA Index	10.7%	21.5%	(14.2)%	27.2%	4.5%

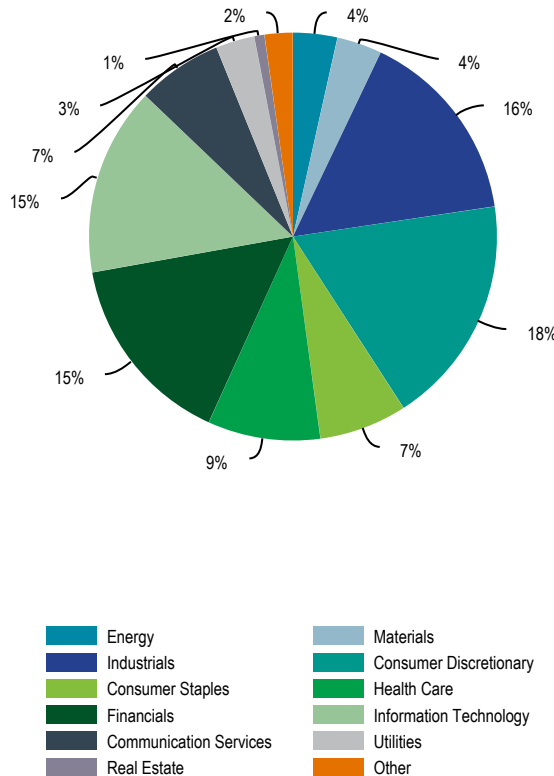
Fund Information

Subadvisors	Target Allocation
Schroders International Alpha	60%
PERA International Multi-Factor	40%

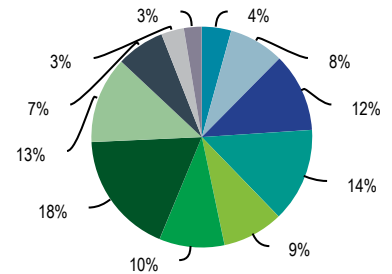
Regions	% of Assets
Europe Developed	48.5%
Emerging Markets	27.4%
Asia Pacific Developed	16.6%
North America	2.9%
United States	2.8%
Other	1.8%

Top 10 Holdings	% of Assets
Taiwan Semiconductor Manufacturing	3.5%
Samsung Electronics Co Ltd	3.3%
Alibaba Group Holding Ltd	2.4%
Tencent Holdings Ltd	2.3%
Schneider Electric SE	2.2%
Roche Holding AG	1.9%
ASML Holding NV	1.9%
Vestas Wind Systems A/S	1.8%
Iberdrola SA	1.7%
AIA Group Ltd	1.7%
Total # of Stock Holdings	793

Fund Sectors



Benchmark Sectors



*As of previous quarter end

PERAdvantage Income Fund



Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
BR LifePath Retirement Index	Low	10/1/2011	\$334.2	0.03%	0.07%	0.10%

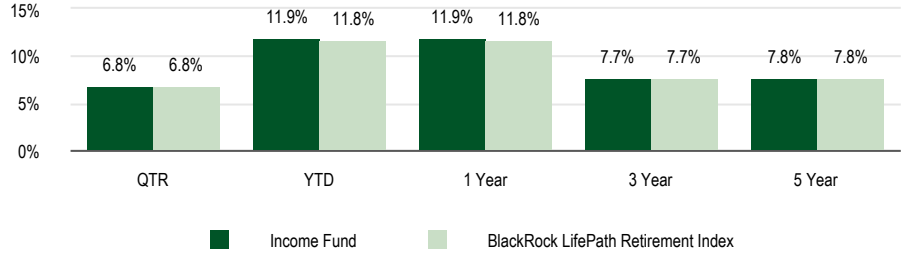
4Q

2020

Investment Objective & Strategy

The fund seeks income, with some investment in stocks for potential capital appreciation. The fund is designed for participants who are close to, or already retired. This portfolio is designed to provide those who are withdrawing money from their plan with an appropriate blend of income and inflation protection. By investing in the fund you may capture diversified investment opportunities without having to manage multiple funds or worry with the day-to-day management of your money.

Performance as of 12/31/2020



Principal Risks

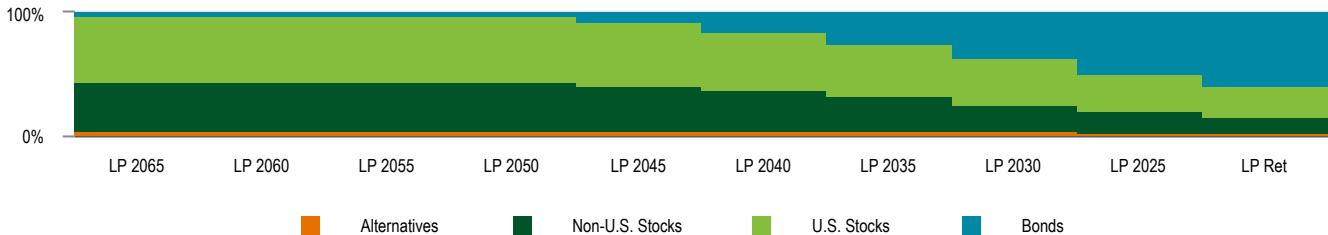
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments

Annual Returns

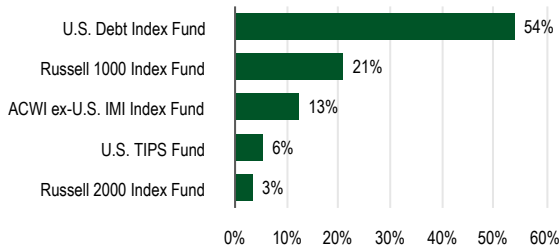
	2020	2019	2018	2017	2016
Income Fund	11.9%	15.6%	(3.6)%	9.9%	6.1%
BR LifePath Retirement Index	11.8%	15.6%	(3.5)%	10.0%	6.2%

Fund Information

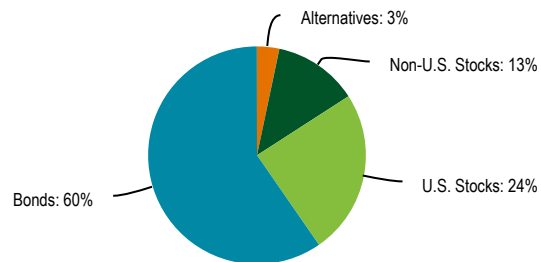
Target Retirement Date Series Glidepath



Top 5 Holdings



Portfolio Analysis



Subadvisor

BlackRock

Target Allocation

100%

*As of previous quarter end

Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
BlackRock LifePath 2025 Index	Low	10/1/2011	\$243.5	0.03%	0.07%	0.10%

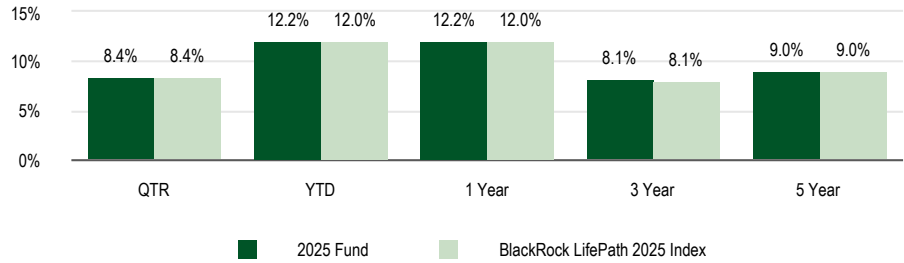
4Q

2020

Investment Objective & Strategy

The fund seeks a combination of current income and capital appreciation, with a greater emphasis on appreciation. This fund will automatically adjust the underlying asset allocation to become more conservative over time and is designed for participants who expect to retire around 2025, at which time the fund will reach its most conservative risk level and be blended into the PERAdvantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

Performance as of 12/31/2020



Principal Risks

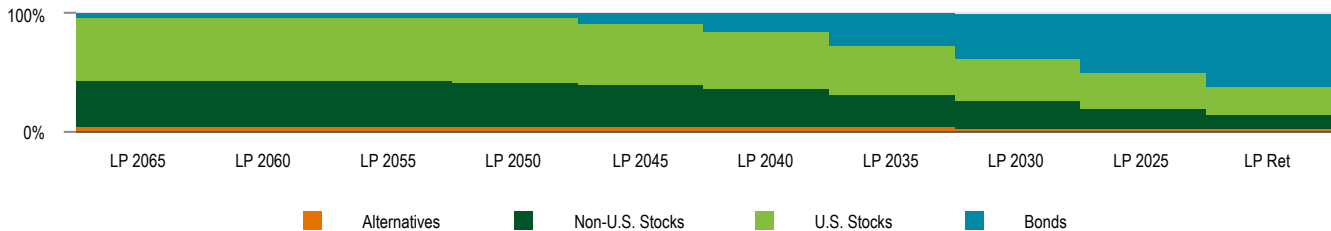
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments

Annual Returns

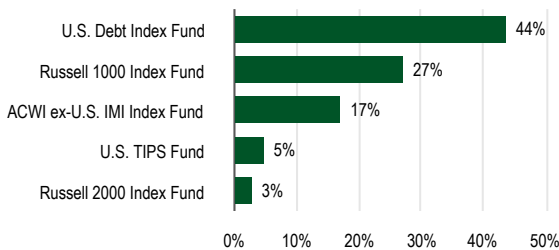
	2020	2019	2018	2017	2016
2025 Fund	12.2%	18.6%	(4.9)%	13.7%	7.2%
BlackRock LifePath 2025 Index	12.0%	18.5%	(4.9)%	13.7%	7.2%

Fund Information

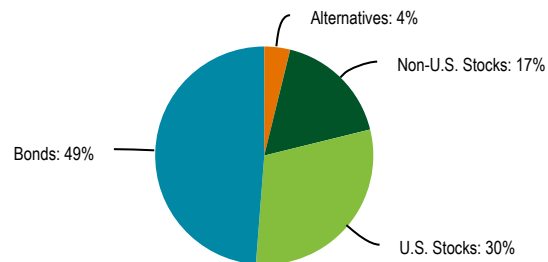
Target Retirement Date Series Glidepath



Top 5 Holdings



Portfolio Analysis



Subadvisor

BlackRock

Target Allocation

100%

*As of previous quarter end

PERAdvantage 2030 Fund



Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
BlackRock LifePath 2030 Index	Moderate	10/1/2011	\$209.8	0.03%	0.07%	0.10%

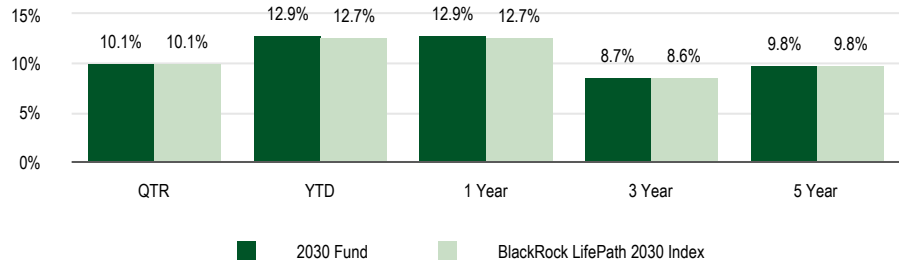
4Q

Investment Objective & Strategy

The fund seeks a combination of current income and capital appreciation, with a greater emphasis on appreciation. This fund will automatically adjust the underlying asset allocation to become more conservative over time and is designed for participants who expect to retire around 2030, at which time the fund will reach its most conservative risk level and be blended into the PERAdvantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

2020

Performance as of 12/31/2020



Principal Risks

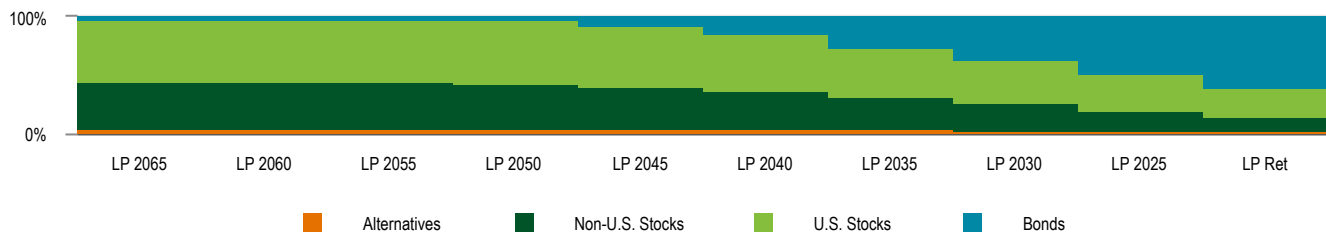
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments

Annual Returns

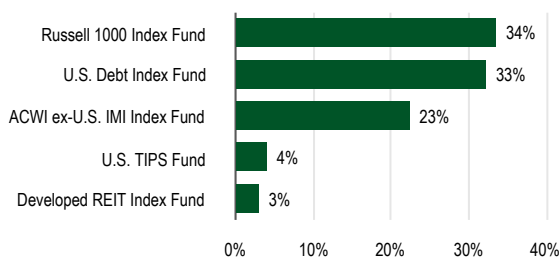
	2020	2019	2018	2017	2016
2030 Fund	12.9%	20.8%	(5.8)%	15.6%	7.7%
BlackRock LifePath 2030 Index	12.7%	20.7%	(5.8)%	15.6%	7.6%

Fund Information

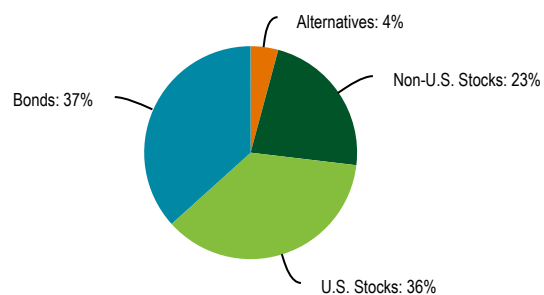
Target Retirement Date Series Glidepath



Top 5 Holdings



Portfolio Analysis



Subadvisor

BlackRock

Target Allocation

100%

*As of previous quarter end

PERAdvantage 2035 Fund



Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
BlackRock LifePath 2035 Index	Moderate	10/1/2011	\$191.7	0.03%	0.07%	0.10%

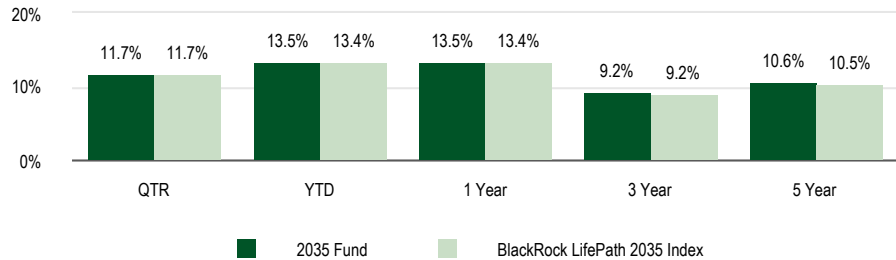
4Q

Investment Objective & Strategy

The fund seeks a combination of current income and capital appreciation, with a greater emphasis on appreciation. This fund will automatically adjust the underlying asset allocation to become more conservative over time and is designed for participants who expect to retire around 2035, at which time the fund will reach its most conservative risk level and be blended into the PERAdvantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

2020

Performance as of 12/31/2020



Principal Risks

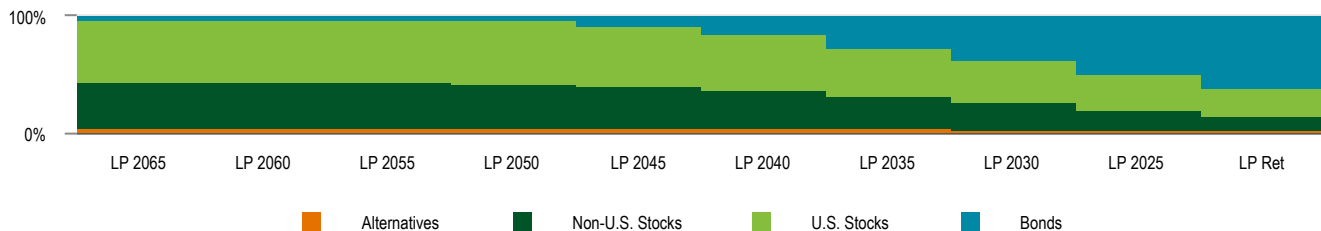
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments

Annual Returns

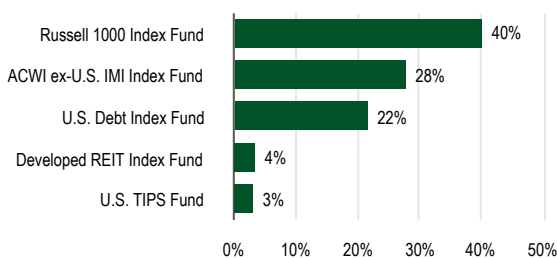
	2020	2019	2018	2017	2016
2035 Fund	13.5%	22.8%	(6.5)%	17.5%	8.2%
BlackRock LifePath 2035 Index	13.4%	22.7%	(6.6)%	17.5%	8.1%

Fund Information

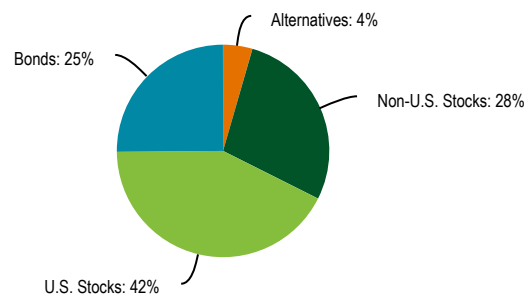
Target Retirement Date Series Glidepath



Top 5 Holdings



Portfolio Analysis



Subadvisor

BlackRock

Target Allocation

100%

*As of previous quarter end

Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
BlackRock LifePath 2040 Index	High	10/1/2011	\$151.5	0.03%	0.07%	0.10%

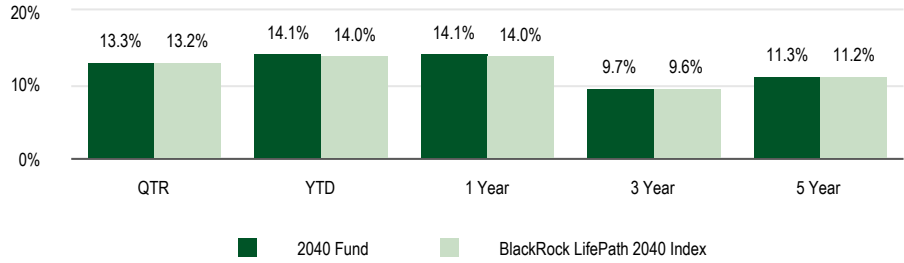
4Q

2020

Investment Objective & Strategy

The fund seeks a combination of current income and capital appreciation, with a greater emphasis on appreciation. This fund will automatically adjust the underlying asset allocation to become more conservative over time and is designed for participants who expect to retire around 2040, at which time the fund will reach its most conservative risk level and be blended into the PERAdvantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

Performance as of 12/31/2020



Principal Risks

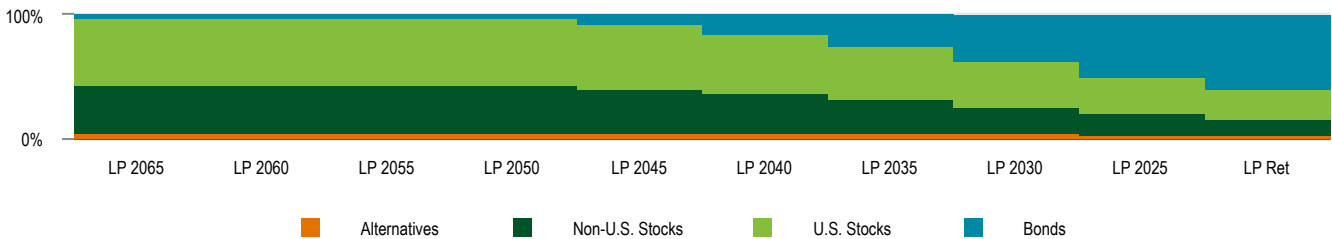
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments

Annual Returns

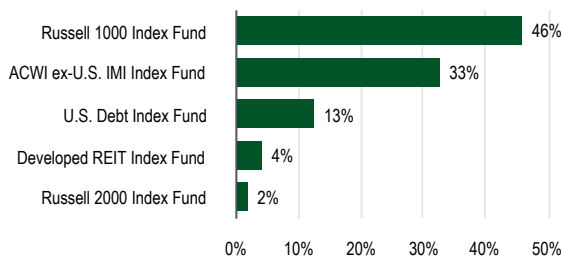
	2020	2019	2018	2017	2016
2040 Fund	14.1%	24.7%	(7.3)%	19.2%	8.6%
BlackRock LifePath 2040 Index	14.0%	24.6%	(7.3)%	19.1%	8.4%

Fund Information

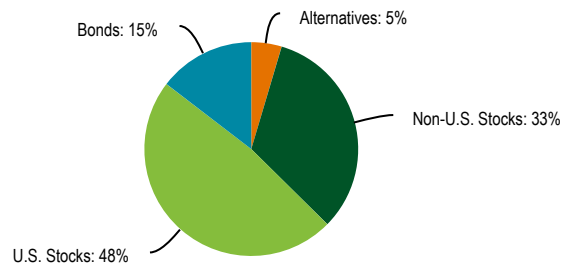
Target Retirement Date Series Glidepath



Top 5 Holdings



Portfolio Analysis



Subadvisor

BlackRock

Target Allocation

100%

*As of previous quarter end

Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
BlackRock LifePath 2045 Index	High	10/1/2011	\$123.3	0.03%	0.07%	0.10%

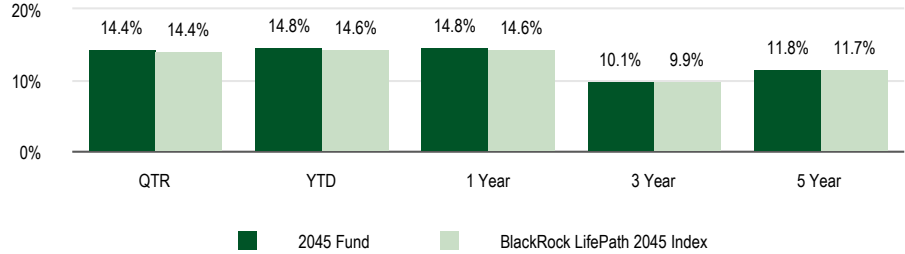
4Q

Investment Objective & Strategy

The fund seeks capital appreciation, with a minor emphasis on current income. This fund will automatically adjust the underlying asset allocation to become more conservative over time and is designed for participants who expect to retire around 2045, at which time the fund will reach its most conservative risk level and be blended into the PERAdvantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

2020

Performance as of 12/31/2020



Principal Risks

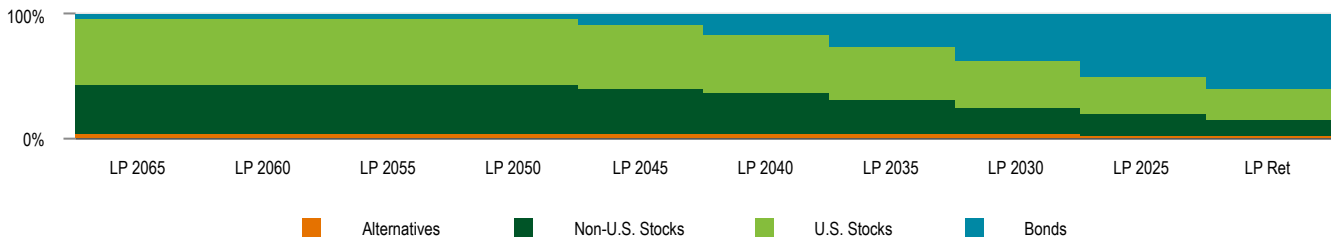
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments

Annual Returns

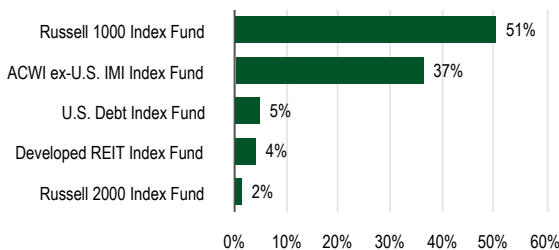
	2020	2019	2018	2017	2016
2045 Fund	14.8%	26.0%	(7.9)%	20.3%	8.8%
BlackRock LifePath 2045 Index	14.6%	25.9%	(8.0)%	20.2%	8.7%

Fund Information

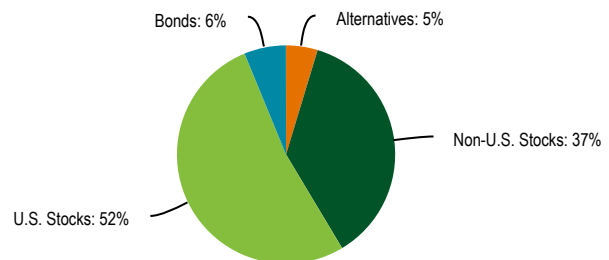
Target Retirement Date Series Glidepath



Top 5 Holdings



Portfolio Analysis



Subadvisor

BlackRock

Target Allocation

100%

*As of previous quarter end

PERAdvantage 2050 Fund



Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
BlackRock LifePath 2050 Index	High	10/1/2011	\$89.9	0.03%	0.07%	0.10%

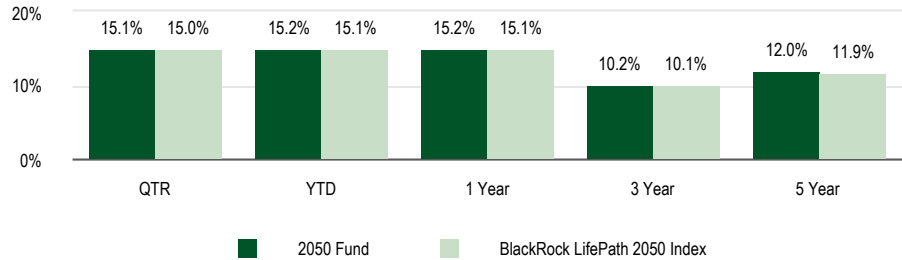
4Q

Investment Objective & Strategy

The fund seeks capital appreciation, with a minor emphasis on current income. This fund will automatically adjust the underlying asset allocation to become more conservative over time and is designed for participants who expect to retire around 2050, at which time the fund will reach its most conservative risk level and be blended into the PERAdvantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

2020

Performance as of 12/31/2020



Principal Risks

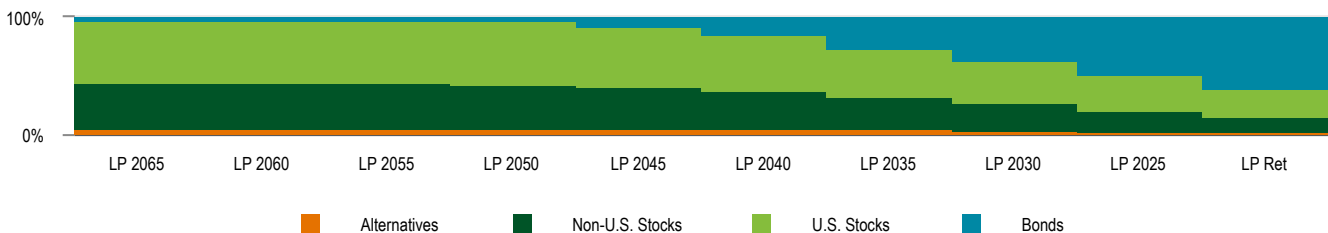
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments

Annual Returns

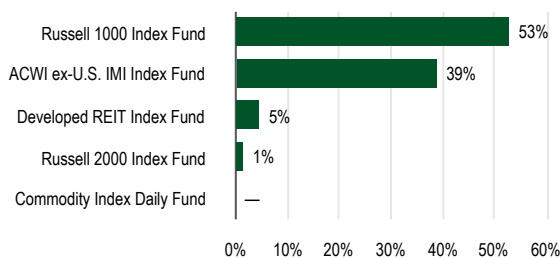
	2020	2019	2018	2017	2016
2050 Fund	15.2%	26.6%	(8.1)%	20.7%	8.9%
BlackRock LifePath 2050 Index	15.1%	26.5%	(8.3)%	20.6%	8.7%

Fund Information

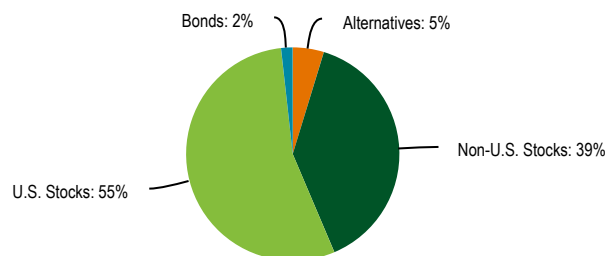
Target Retirement Date Series Glidepath



Top 5 Holdings



Portfolio Analysis



Subadvisor

BlackRock

Target Allocation

100%

*As of previous quarter end

PERAdvantage 2055 Fund



Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
BlackRock LifePath 2055 Index	High	10/1/2011	\$55.8	0.03%	0.07%	0.10%

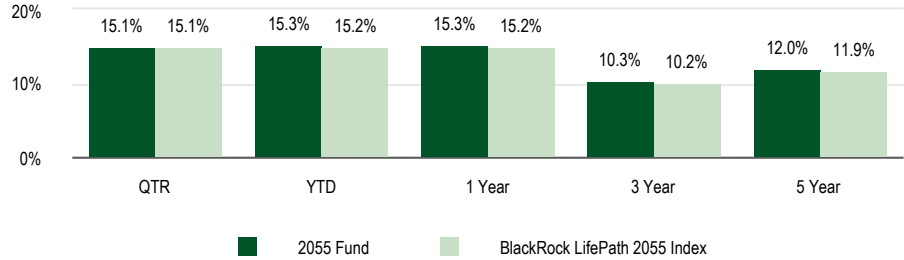
4Q

Investment Objective & Strategy

The fund seeks capital appreciation, with a minor emphasis on current income. This fund will automatically adjust the underlying asset allocation to become more conservative over time and is designed for participants who expect to retire around 2055, at which time the fund will reach its most conservative risk level and be blended into the PERAdvantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

2020

Performance as of 12/31/2020



Principal Risks

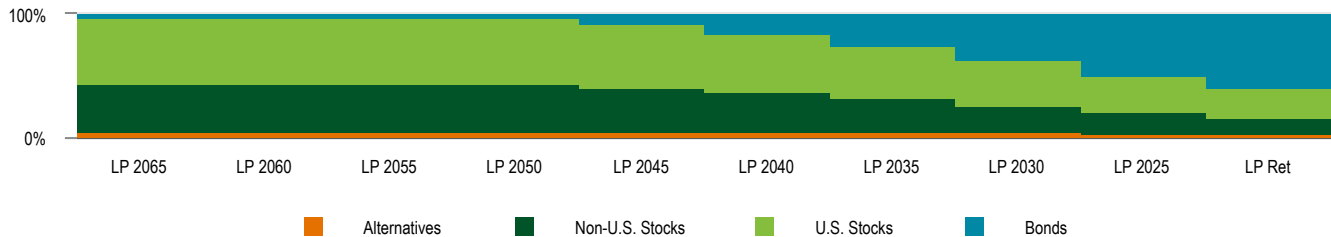
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments

Annual Returns

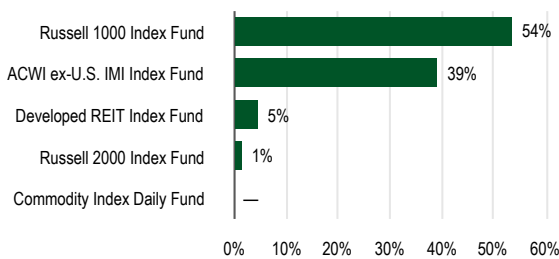
	2020	2019	2018	2017	2016
2055 Fund	15.3%	26.6%	(8.2)%	20.6%	8.9%
BlackRock LifePath 2055 Index	15.2%	26.6%	(8.3)%	20.6%	8.7%

Fund Information

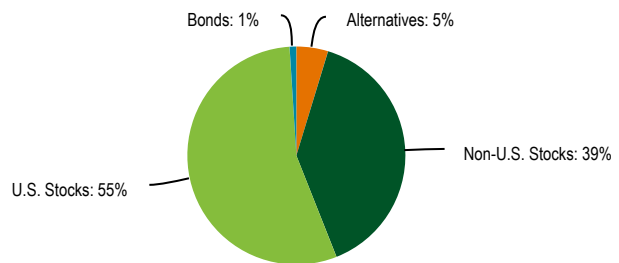
Target Retirement Date Series Glidepath



Top 5 Holdings



Portfolio Analysis



Subadvisor

BlackRock

Target Allocation

100%

*As of previous quarter end

PERAdvantage 2060 Fund



Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
BlackRock LifePath 2060 Index	High	2/2/2015	\$21.1	0.03%	0.07%	0.10%

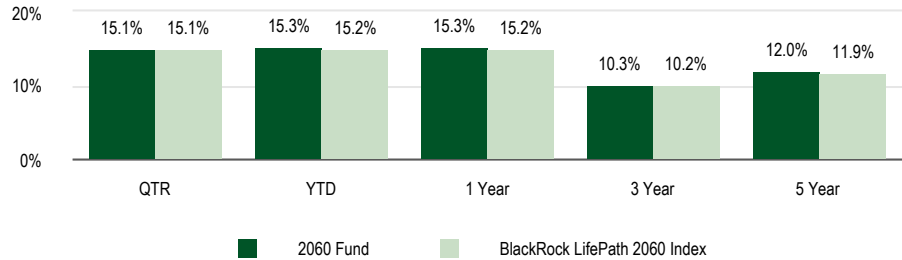
4Q

Investment Objective & Strategy

The fund seeks capital appreciation, with a minor emphasis on current income. This fund will automatically adjust the underlying asset allocation to become more conservative over time and is designed for participants who expect to retire around 2060, at which time the fund will reach its most conservative risk level and be blended into the PERAdvantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

2020

Performance as of 12/31/2020



Principal Risks

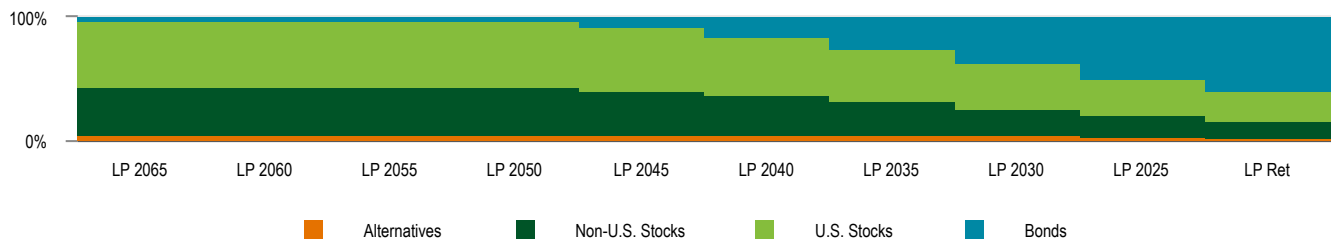
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments

Annual Returns

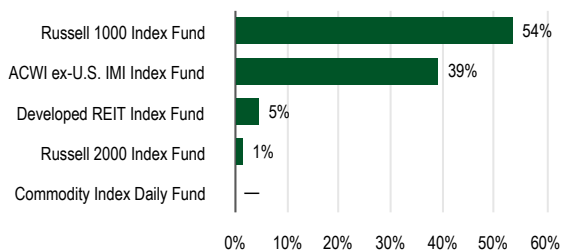
	2020	2019	2018	2017	2016
2060 Fund	15.3%	26.6%	(8.2)%	20.6%	8.8%
BlackRock LifePath 2060 Index	15.2%	26.6%	(8.3)%	20.6%	8.7%

Fund Information

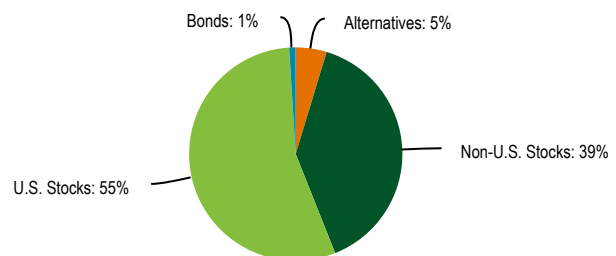
Target Retirement Date Series Glidepath



Top 5 Holdings



Portfolio Analysis



Subadvisor

BlackRock

Target Allocation

100%

*As of previous quarter end

PERAdvantage 2065 Fund



Benchmark	Volatility and Risk	Fund Inception Date	Total Fund Assets (\$M)	Admin Fee*	Inv. Mgmt. Fee*	Total Fee*
BlackRock LifePath 2065 Index	High	3/20/2020	\$1.7	0.03%	0.07%	0.10%

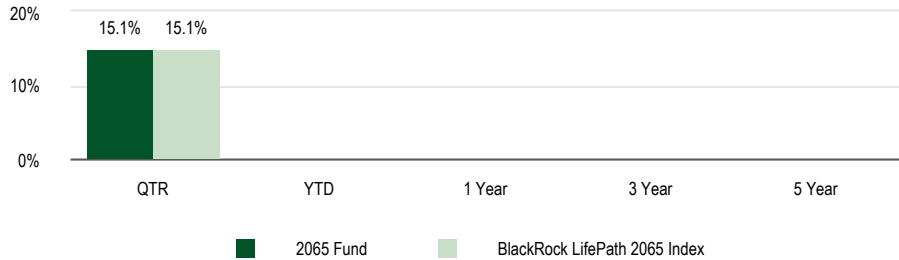
4Q

Investment Objective & Strategy

The fund seeks capital appreciation, with a minor emphasis on current income. This fund will automatically adjust the underlying asset allocation to become more conservative over time and is designed for participants who expect to retire around 2065, at which time the fund will reach its most conservative risk level and be blended into the PERAdvantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

2020

Performance as of 12/31/2020



Principal Risks

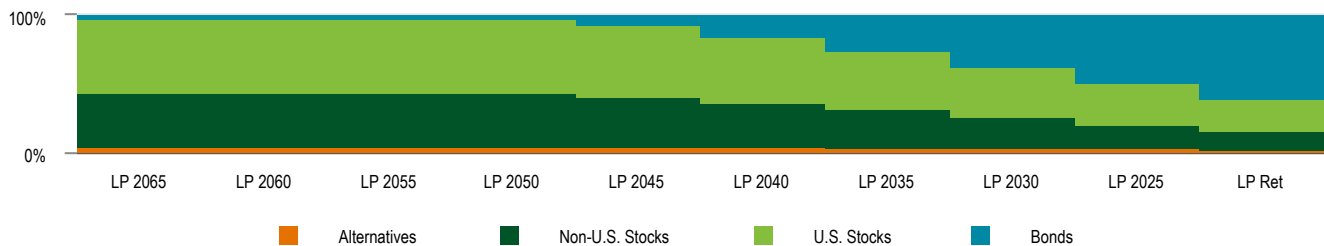
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments

Annual Returns

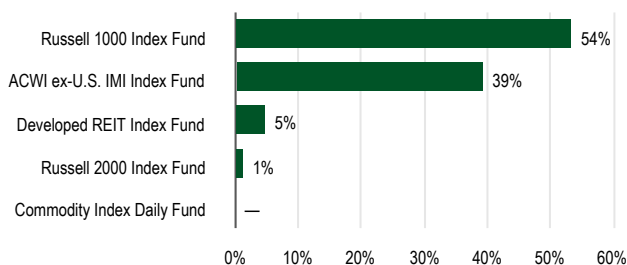
	2020	2019	2018	2017	2016
2065 Fund	-	-	-	-	-
BlackRock LifePath 2065 Index	-	-	-	-	-

Fund Information

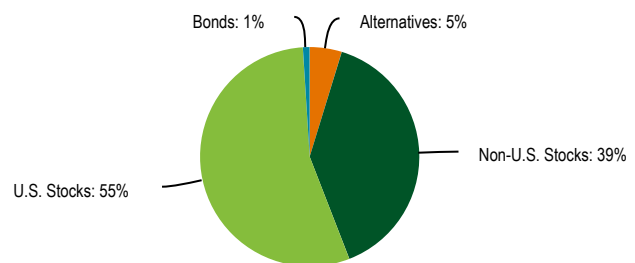
Target Retirement Date Series Glidepath



Top 5 Holdings



Portfolio Analysis



Subadvisor

BlackRock

Target Allocation

100%

*As of previous quarter end

IMPORTANT DISCLOSURES

The information provided in these fact sheets and disclosure statement should not be considered a recommendation to purchase or sell a particular Fund. Investment objectives, risks, fees, and expenses of the Fund should be considered before purchasing or selling a particular Fund. Colorado PERA (PERA) has made every effort to ensure the information presented is accurate and current. More information about PERAdvantage Funds, including prices, performance, and benchmark information, is available on the Plan websites, accessible through www.copera.org, or by calling 1-800-759-7372.

PERAdvantage Fund investors own units in a portfolio that invests in securities appropriate for the asset class and do not have direct ownership of the securities in the Fund. PERAdvantage Funds are not mutual funds. Prospectuses are not required and prices are not available in local publications. The Funds are privately offered and are only available to members. PERA is a governmental plan and is exempted by state and federal law from registration with the SEC.

PERAdvantage Funds may have multiple managers and portfolios underlying the Fund. PERA has determined the mix of assets among the managers for each Fund. However, at any given point in time, the actual allocation among the managers may vary due to market movements and the Fund's cash flows. PERA maintains a rebalancing policy to ensure the assets under management by each manager do not materially diverge from the target asset allocation. Manager allocations and individual managers may change in order to best meet the investment objective of each of the PERAdvantage Funds. Historical performance may reflect different allocations to the same or different managers and benchmarks may change to best match investment objectives.

Plan administrative fees pay for recordkeeping, custodial services, consulting, and internal PERA administrative expenses. The administrative fee consists of a flat \$1 per month per participant per plan and an asset-based fee of up to 0.03% on each underlying PERAdvantage Fund. Underlying managers charge an investment management fee, which varies among the managers, and may change at any time.

The performance data provided represents past performance and does not guarantee future results. The Funds are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution. Principal value and investment return will fluctuate, so an investor's shares may be worth more or less than the original value when sold. Portfolio statistics and allocations may change over time.

Performance is net of administrative and management fees and calculated using time-weighted net asset values. Returns for periods greater than one year are annualized. Performance prior to 01/01/2020 is calculated by RVK, Inc. and by Callan LLC thereafter, and begins the first full month after initial funding. PERAdvantage Funds commenced on 10/01/2011.

Each Fund's performance is compared with that of an index, which is a passively managed portfolio of specified securities, and does not reflect any initial or ongoing expenses. A Fund's portfolio may differ significantly from the securities in the index. Fund benchmark listed represents the current benchmark and while historical performance is linked to the current benchmark, historical performance may differ from the listed benchmark due to changes in benchmark composition over time.

The PERAdvantage International Stock fund uses fair value pricing, which may cause the fund's performance to differ from that of its benchmark.

Certain PERAdvantage Funds engage in securities lending activities, which may expose them to certain risks. These risks primarily come from the inability of the borrower to return the borrowed security, or potential losses from the reinvested collateral.



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This report provides information about the PERAPlus 401(k)/457 and PERA DC Plans. Your rights, benefits, and obligations as a Colorado PERA member are governed by Title 24, Article 51 of the Colorado Revised Statutes, the Rules of the Colorado Public Employees' Retirement Association, the *401(k) and Defined Contribution Plan and Trust Document*, and the *PERA Deferred Compensation Plan*, which take precedence over any interpretations in this report.