



ANNUAL REPORT FOR THE PERAPLUS
401(K)/457 AND PERA DC PLANS
FOR THE YEAR ENDED DECEMBER 31, 2022



Guiding our mission with integrity and purpose

August 2023

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, 2022. Inside, you will find the financial statements and rates of return for the funds.

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 2022 *Annual Comprehensive Financial Report (ACFR)*. A copy of the *ACFR* is available on PERA's website at copera.org.



Amy C. McGarrity
*Interim Executive Director/
Chief Investment Officer*

On December 31, 2022:

- The PERAPlus 401(k) Plan had a fiduciary net position of \$3,786,273,000 with 67,040 participant accounts.
- The PERAPlus 457 Plan had a fiduciary net position of \$1,106,210,000 with 20,063 participant accounts.
- The PERA DC Plan had a fiduciary net position of \$339,452,000 with 7,846 participant accounts.

Empower 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 2022:

- Allspring, a manager in the PERA Advantage Fixed Income Fund, was terminated during 2022 and assets were transferred to the newly created internally managed unitized PERA Fixed Income Pool.
- The BlackRock Index allocation in the PERA Advantage Fixed Income Fund was transferred to the BlackRock Core Alpha Fund.

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 Empower at 833-4-COPERA (833-426-7372) or visit coperaplus.org.

Amy C. McGarrity
Interim Executive Director/Chief Investment Officer

PLAN FEES

(As of March 31, 2023)

Plan Administration Fees

All participants will pay an Asset-Based Fee of 0.03%. That means for every \$1,000 of assets in the account, the participant will pay \$0.30. (Note: The 401(k) Asset-Based Fee of 0.03% is waived through 2023. Effective December 3, 2021, the asset-based administrative fee was removed from the net asset value (NAV) calculation and this schedule.)

Participants will also pay a Flat Monthly Fee at the following rates:

- PERAPlus 401(k) Plan: \$1.00/month
- PERAPlus 457 Plan: \$1.50/month
- PERA DC Plan: \$1.00/month

Investment Management Fees

Participants will pay the Investment Management Fees described in this chart. All fees displayed are annualized, and represent an estimate of Investment Management Fees paid by a participant.

This schedule is current as of March 31, 2023, and may change at any time.

Fund	Investment Management Fee	Investment Management Fee Per \$1,000
PERAdvantage Capital Preservation Fund	0.21%	\$2.10
PERAdvantage Fixed Income Fund	0.13%	\$1.30
PERAdvantage Real Return Fund	0.17%	\$1.70
PERAdvantage Socially Responsible Investment (SRI) Fund	0.19%	\$1.90
PERAdvantage U.S. Large Cap Stock Fund	0.05%	\$0.50
PERAdvantage U.S. Small and Mid Cap Stock Fund	0.15%	\$1.50
PERAdvantage International Stock Fund	0.26%	\$2.60
PERAdvantage Target Retirement Date Funds	0.07%	\$0.70

Plan participants with a Self-Directed Brokerage Account (SDBA) will pay an annual \$50 Self-Directed Brokerage fee. Additional trading fees charged by TD Ameritrade may apply.

There is a \$75 nonrefundable loan application fee for each loan a participant takes from their 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 first business day of the current month, plus 1%.

Participants who enroll in the Empower Professional Management program will pay a fee of approximately \$3.75 per month for every \$10,000 in their account. Fees are proportionately lower for accounts with balances over \$100,000.

A complete fee schedule is available on 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 *Annual Report* are as of December 31, 2022. Current returns are available on coperaplus.org. Performance is net of investment management fees (and net of administrative fees prior to December 3, 2021) and calculated using time-weighted net asset values. Returns for periods greater than one year are annualized. Performance prior to January 1, 2020, was calculated by RVK, Inc. and by Callan LLC thereafter, and begins the first full month after initial funding. Unless indicated otherwise, PERAdvantage Funds commenced on October 1, 2011.

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 coperaplus.org. 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 2022	3-Year	5-Year	10-Year
PERAdvantage Capital Preservation Fund	1.5%	1.8%	1.9%	1.9%
<i>ICE BofAML U.S. 3-Month Treasury Bill Index¹</i>	1.5%	0.7%	1.4%	1.6%
PERAdvantage Fixed Income Fund	(13.5%)	(2.6%)	0.1%	1.0%
<i>Bloomberg U.S. Aggregate Bond Index</i>	(13.0%)	(2.7%)	0.0%	1.1%
PERAdvantage Real Return Fund	(1.3%)	6.8%	5.2%	2.6%
<i>Real Return Custom Index²</i>	(1.4%)	6.6%	5.2%	2.7%
PERAdvantage SRI Fund	(17.1%)	1.7%	3.9%	5.6%
<i>SRI Custom Index³</i>	(16.8%)	1.7%	3.9%	5.7%
PERAdvantage U.S. Large Cap Stock Fund	(20.7%)	7.0%	9.3%	12.4%
<i>MSCI USA Large Cap Index⁴</i>	(20.0%)	7.0%	8.8%	12.2%
PERAdvantage U.S. Small and Mid Cap Stock Fund	(12.4%)	7.4%	6.9%	10.2%
<i>MSCI USA SMID Cap Index⁵</i>	(18.1%)	6.1%	6.7%	10.5%
PERAdvantage International Stock Fund	(17.0%)	3.2%	2.8%	5.5%
<i>MSCI ACWI ex USA Index</i>	(16.0%)	0.1%	0.9%	3.8%
PERAdvantage Income Fund	(14.6%)	0.7%	2.6%	3.9%
<i>BlackRock LifePath[®] Retirement Index</i>	(14.5%)	0.8%	2.7%	4.0%
PERAdvantage 2025 Fund	(15.2%)	1.2%	3.2%	5.2%
<i>BlackRock LifePath[®] 2025 Index</i>	(15.2%)	1.2%	3.2%	5.3%
PERAdvantage 2030 Fund	(16.0%)	1.9%	3.8%	5.9%
<i>BlackRock LifePath[®] 2030 Index</i>	(15.9%)	1.9%	3.8%	6.0%
PERAdvantage 2035 Fund	(16.7%)	2.5%	4.3%	6.6%
<i>BlackRock LifePath[®] 2035 Index</i>	(16.7%)	2.5%	4.3%	6.6%
PERAdvantage 2040 Fund	(17.4%)	3.0%	4.8%	7.1%
<i>BlackRock LifePath[®] 2040 Index</i>	(17.4%)	3.0%	4.8%	7.2%
PERAdvantage 2045 Fund	(17.9%)	3.5%	5.2%	7.6%
<i>BlackRock LifePath[®] 2045 Index</i>	(18.0%)	3.5%	5.1%	7.6%
PERAdvantage 2050 Fund	(18.2%)	3.8%	5.4%	7.9%
<i>BlackRock LifePath[®] 2050 Index</i>	(18.3%)	3.7%	5.3%	7.9%
PERAdvantage 2055 Fund	(18.3%)	3.8%	5.4%	8.0%
<i>BlackRock LifePath[®] 2055 Index</i>	(18.4%)	3.8%	5.3%	8.0%
PERAdvantage 2060 Fund	(18.3%)	3.8%	5.4%	Not Available
<i>BlackRock LifePath[®] 2060 Index</i>	(18.4%)	3.8%	5.3%	Not Available
PERAdvantage 2065 Fund	(18.3%)	Not Available	Not Available	Not Available
<i>BlackRock LifePath[®] 2065 Index</i>	(18.4%)	Not Available	Not Available	Not Available

Note: Performance is net of investment management fees (and net of administrative fees prior to 12/03/2021) and calculated using time-weighted net asset values.

Returns for periods greater than one year are annualized.

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 U.S. TIPS Index.

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

STATEMENTS OF FIDUCIARY NET POSITION

As of December 31, 2022 (Unaudited)

(Dollars in Thousands)

ASSETS	401(k) Plan	457 Plan	DC Plan
Investments, at fair value			
PERAdvantage Capital Preservation Fund	\$317,908	\$158,960	\$16,053
PERAdvantage Fixed Income Fund	284,209	81,803	14,613
PERAdvantage Real Return Fund	38,512	16,104	3,059
PERAdvantage Socially Responsible Investment (SRI) Fund	24,624	11,007	2,658
PERAdvantage U.S. Large Cap Stock Fund	1,545,170	282,141	58,691
PERAdvantage U.S. Small and Mid Cap Stock Fund	213,370	131,912	28,672
PERAdvantage International Stock Fund	305,790	108,417	27,453
PERAdvantage Income Fund	204,066	48,275	11,924
PERAdvantage 2025 Fund	151,597	38,499	12,100
PERAdvantage 2030 Fund	152,268	39,794	15,625
PERAdvantage 2035 Fund	142,613	42,267	17,335
PERAdvantage 2040 Fund	109,144	37,225	20,732
PERAdvantage 2045 Fund	81,314	25,520	33,304
PERAdvantage 2050 Fund	60,055	18,101	28,683
PERAdvantage 2055 Fund	36,233	9,638	23,484
PERAdvantage 2060 Fund	15,791	7,056	8,317
PERAdvantage 2065 Fund	3,956	2,171	1,270
TD Ameritrade Self-Directed Brokerage Account	37,809	31,322	7,695
Total investment portfolio	3,724,429	1,090,212	331,668
Other plan assets			
Cash and short-term investments	10,075	3,209	4,464
Interest receivable	34	8	17
Benefit receivable	4,095	2,497	3,444
Participant loans receivable	48,794	10,602	—
Total other plan assets	62,998	16,316	7,925
Total assets	3,787,427	1,106,528	339,593
LIABILITIES			
Amount due to combined investment fund	(250)	(70)	(76)
Accounts payable	(158)	(47)	(17)
Other liabilities	(746)	(201)	(48)
Total liabilities	(1,154)	(318)	(141)
Fiduciary net position restricted for defined contribution pension plans	\$3,786,273	\$1,106,210	\$339,452

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

For the Year Ended December 31, 2022 (Unaudited)

(Dollars in Thousands)

ADDITIONS	401(k) Plan	457 Plan	DC Plan
Contributions			
Employers	\$6,792	\$37	\$19,553
Members	147,445	80,757	20,956
Total contributions	154,237	80,794	40,509
Investment income adjusted for fair value appreciation or depreciation			
PERAdvantage Capital Preservation Fund	4,726	2,455	230
PERAdvantage Fixed Income Fund	(46,662)	(13,393)	(2,296)
PERAdvantage Real Return Fund	(981)	(318)	(58)
PERAdvantage SRI Fund	(4,771)	(2,100)	(427)
PERAdvantage U.S. Large Cap Stock Fund	(422,974)	(74,482)	(15,169)
PERAdvantage U.S. Small and Mid Cap Stock Fund	(31,047)	(18,868)	(3,942)
PERAdvantage International Stock Fund	(65,541)	(22,593)	(5,441)
PERAdvantage Income Fund	(37,538)	(8,850)	(2,102)
PERAdvantage 2025 Fund	(29,035)	(7,470)	(2,075)
PERAdvantage 2030 Fund	(28,805)	(7,560)	(2,733)
PERAdvantage 2035 Fund	(27,831)	(8,184)	(3,330)
PERAdvantage 2040 Fund	(21,878)	(7,187)	(4,187)
PERAdvantage 2045 Fund	(16,623)	(4,916)	(6,922)
PERAdvantage 2050 Fund	(12,121)	(3,628)	(6,033)
PERAdvantage 2055 Fund	(7,773)	(1,966)	(4,676)
PERAdvantage 2060 Fund	(3,121)	(1,353)	(1,463)
PERAdvantage 2065 Fund	(639)	(361)	(155)
TD Ameritrade Self-Directed Brokerage Account	(8,417)	(8,002)	(2,739)
Short-term interest income	141	20	79
Internal investment manager expense	(990)	(243)	(51)
Net investment income	(\$761,880)	(\$188,999)	(\$63,490)
Other additions			
Participant loan interest	2,142	480	–
Forfeitures	–	–	1,453
Miscellaneous	142	16	3
Total other additions	2,284	496	1,456
Total additions	(605,359)	(107,709)	(21,525)
DEDUCTIONS			
Distributions	(318,144)	(93,974)	(25,334)
Administrative expenses	(1,961)	(574)	(849)
Other deductions	(1,275)	(532)	(118)
Total deductions	(321,380)	(95,080)	(26,301)
Net decrease in fiduciary net position	(\$926,739)	(\$202,789)	(\$47,826)

ANALYSIS OF PLAN ADMINISTRATIVE INCOME/(EXPENSE)

For the Year Ended December 31, 2022 (Unaudited)

(Dollars in Thousands)

	401(k) Plan	457 Plan	DC Plan
Plan income			
Administrative and internal investment manager fees	\$1,801	\$940	243
Loan and other fees	47	10	—
Short-term interest income from operations	141	20	79
Forfeitures	—	—	1,453
Total plan income	1,989	970	1,775
Plan expense			
Consulting fees	(125)	(36)	(10)
Recordkeeping fees	(1,222)	(364)	(141)
Custodial fees	(199)	(57)	(17)
Other expense	(2)	—	—
PERA administrative expense	(413)	(117)	(681)
Internal investment manager expense	(990)	(243)	(51)
Total plan expense	(2,951)	(817)	(900)
Net plan administrative income/(expense)	(\$962)	\$153	\$875

REVIEWING YOUR INVESTMENTS

Participants may review or change their investment mix by calling Empower at 833-4-COPERA (833-426-7372) or visiting coperaplus.org.

For first-time access:

- Log on to coperaplus.org and select “Register”
- Choose the “I do not have a PIN” tab
- Follow the prompts to create a username and password

To help participants better understand the investment options available to them, this *Annual Report* includes the fund fact sheets (beginning on page 11) as of December 31, 2022, for all funds currently available. Current fund fact sheets and risk definitions can be found on coperaplus.org. Disclosure information applicable to all PERAdvantage funds is found below.

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 coperaplus.org.

FUND FACT SHEETS

4Q

2022

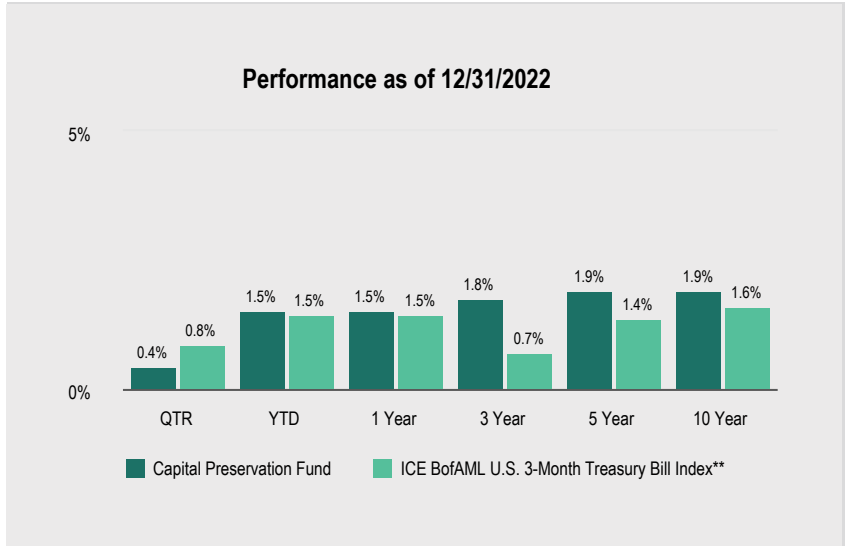
Benchmark	ICE BofAML U.S. 3-Mo T-Bill
Volatility and Risk	Low
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$492.9
Investment Mgmt. Fee*	0.21%

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, low volatility fixed income securities to produce the income. Since the underlying fixed income investments fluctuate in market value with changes in the market, the portfolio is paired with an insurance contract to provide a more stable return and to offer participants the ability to withdraw or transfer their funds subject to plan rules without any market value risk or other penalty for premature withdrawal.

Principal Risks

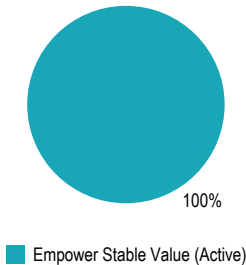
Loss of Money, Insurance Provider Claim-Paying Ability***, Not FDIC Insured, Active Management, Suitability, Issuer, Non-diversification, U.S. Government Obligations, Mortgage-Backed and Asset-Backed Securities, Fixed Income Securities



Annual Returns	2022	2021	2020	2019	2018
Capital Preservation Fund	1.5%	1.6%	2.2%	2.3%	2.0%
ICE BofAML U.S. 3-Mo T-Bill Index**	1.5%	0.1%	0.7%	2.5%	2.2%

Fund Information

Fund Manager



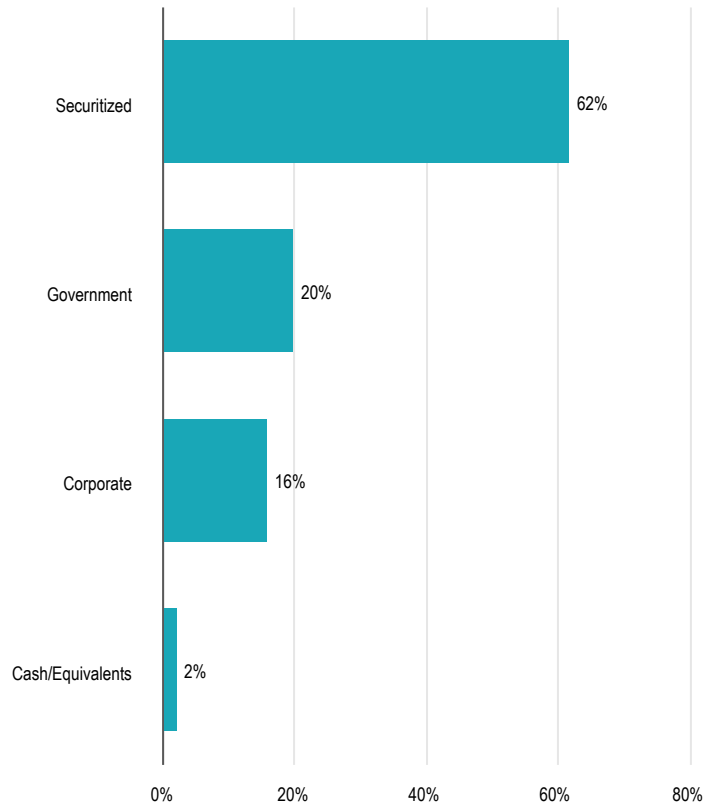
Portfolio Metrics

Avg Eff Duration	3.5
Avg Eff Maturity	4.3
Avg Credit Quality	AA+
Avg Wtd Coupon	2.4
Avg Wtd Price	91.7

Credit Quality

AAA	14.0%
AA	76.1%
A	9.3%
BBB	0.6%
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

***Great-West Financial has an average rating of AA

4Q

2022

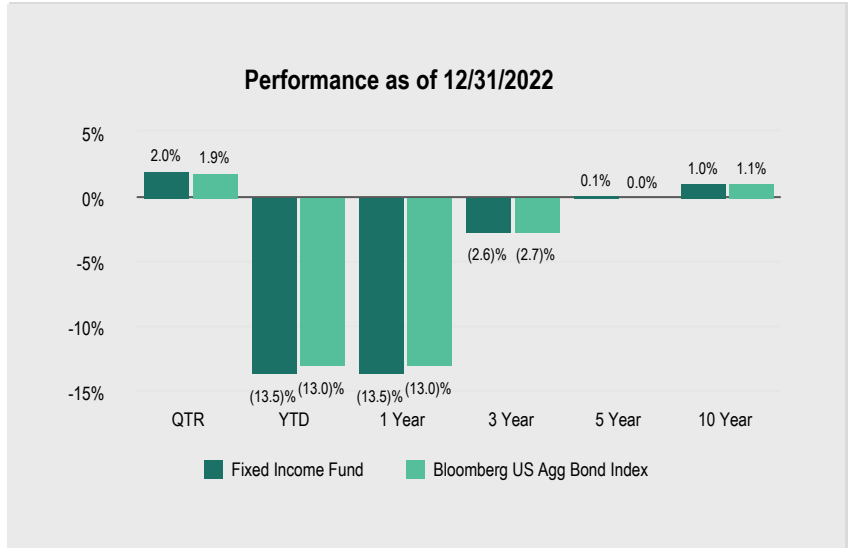
Benchmark	Bloomberg US Agg Bond Idx
Volatility and Risk	Low
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$380.7
Investment Mgmt. Fee*	0.13%

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.

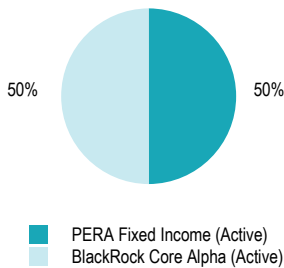
Principal Risks

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



Annual Returns	2022	2021	2020	2019	2018
Fixed Income Fund	(13.5)%	(1.7)%	8.7%	9.0%	(0.2)%
Bloomberg US Agg Bond Index	(13.0)%	(1.5)%	7.5%	8.7%	0.0%

Fund Managers



Portfolio Metrics

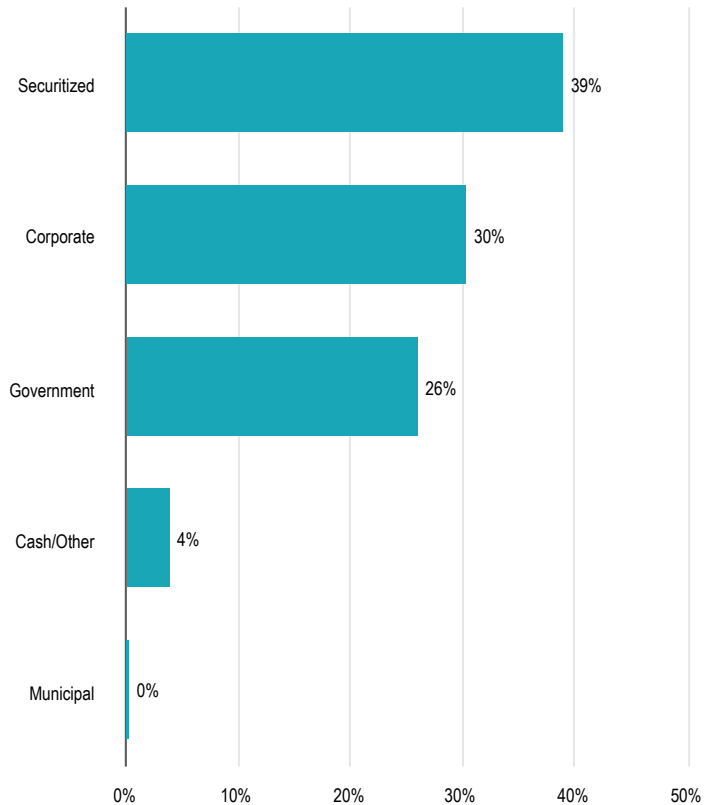
Avg Eff Duration	6.3
Avg Eff Maturity	7.6
Avg Credit Quality	A+
Avg Wtd Coupon	3.0
Avg Wtd Price	90.6
Total # of Bond Holdings	3,348

Credit Quality

AAA	66.5%
AA	3.6%
A	14.7%
BBB	13.6%
High Yield	1.7%
Not Rated	0.5%

*As of previous quarter end

Sectors



Fund Information

4Q

2022

Fund Information

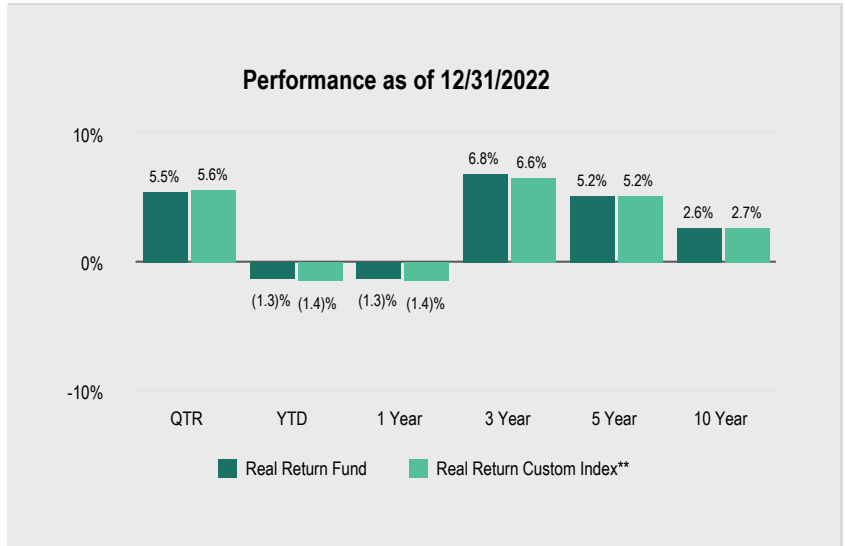
Benchmark	Real Return Custom Index
Volatility and Risk	Moderate
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$57.7
Investment Mgmt. Fee*	0.17%

Investment Objective & Strategy

The fund seeks to provide broad exposure to real assets and U.S. inflation protected bonds and to produce a return over a full market cycle that exceeds the rate of inflation. This fund invests in U.S. inflation-linked bonds, real estate investment trusts (REITs), commodities, and global natural resources and infrastructure stocks.

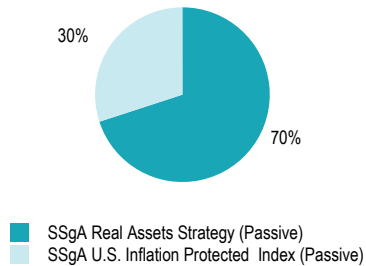
Principal Risks

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

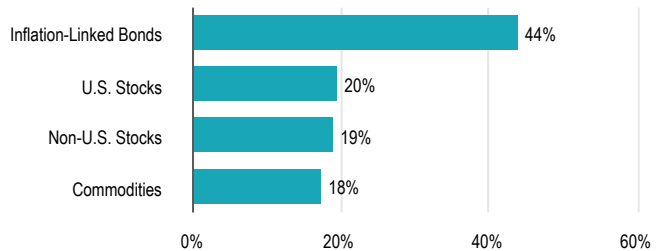


Annual Returns	2022	2021	2020	2019	2018
Real Return Fund	(1.3)%	16.4%	6.1%	12.0%	(5.5)%
Real Return Custom Index**	(1.4)%	16.5%	5.4%	12.2%	(5.3)%

Fund Managers



Portfolio Composition



Top Real Assets Holdings	% of Assets
Exxon Mobil Corp	2.3%
Archer-Daniels-Midland Co	2.1%
BHP Group Ltd	2.0%
Corteva Inc	1.7%
Chevron Corp	1.6%
Prologis Inc REIT	1.6%
Nutrien Ltd	1.6%
Transurban Group	1.4%
NextEra Energy Inc	1.4%
Enbridge Inc	1.3%
Total # of Stock Holdings	436
Total # of Bond Holdings	34

Real Assets Strategy Allocation	% of Fund
Global Equities	55%
Natural Resources	25%
Infrastructure	20%
REITs	10%
Commodities	25%
Inflation-Linked Bonds	20%

*As of previous quarter end

**Current strategy: 70% State Street Real Asset Strategy DC Index (25% Bloomberg Roll Select Commodity Index, 25% S&P Global LargeMidCap Commodity and Resources Index, 20% S&P Global Infrastructure Index, 20% Bloomberg U.S. Government Inflation-Linked 1-10 Year Bond Index, 10% Dow Jones U.S. Select REIT Index) / 30% Bloomberg U.S. Treasury Inflation Protected Securities (TIPS) Index

4Q

2022

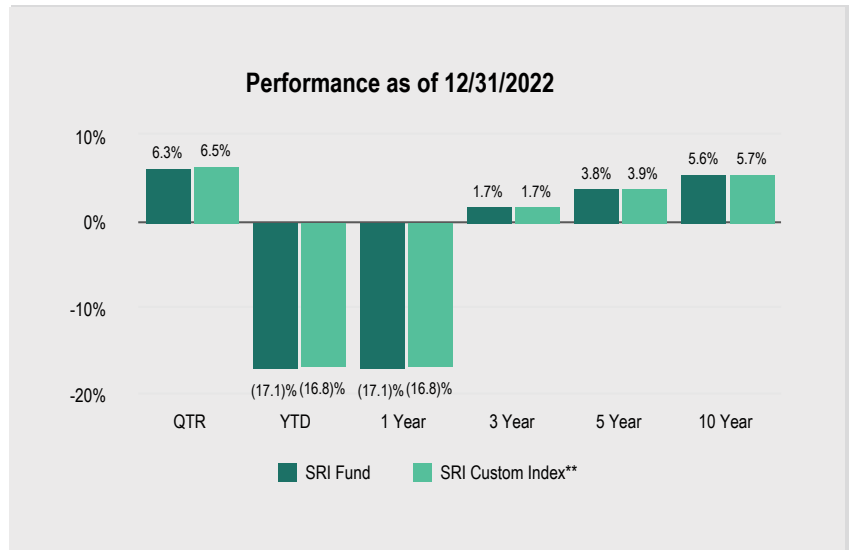
Benchmark	SRI Custom Index
Volatility and Risk	Moderate
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$38.3
Investment Mgmt. Fee*	0.19%

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.

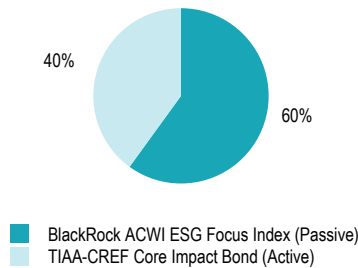
Principal Risks

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

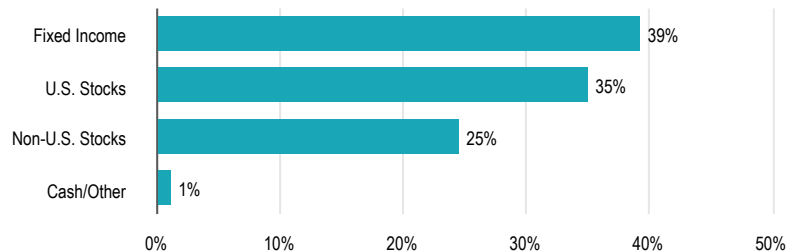


Annual Returns	2022	2021	2020	2019	2018
SRI Fund	(17.1)%	10.2%	15.1%	19.6%	(4.0)%
SRI Custom Index**	(16.8)%	10.1%	14.8%	20.2%	(4.1)%

Fund Managers



Portfolio Composition



Fund Information

Top Equity Holdings	% of Fund
Apple Inc	3.7%
Microsoft Corp	3.1%
Amazon.com Inc	1.3%
UnitedHealth Group Inc	1.0%
Alphabet Inc Class C	0.9%
Alphabet Inc Class A	0.8%
Taiwan Semiconductor Manufacturing	0.8%
Johnson & Johnson	0.7%
Coca-Cola Co	0.7%
JPMorgan Chase & Co	0.7%
Total # of Stock Holdings	562

Equity Sector Allocation	% of Fund	Fixed Income Allocation	% of Fund
Information Technology	21.4%	Corporate	33.1%
Financials	14.5%	Securitized	29.3%
Health Care	12.0%	Government	27.3%
Consumer Discretionary	11.3%	Municipal	6.7%
Industrials	9.8%	Other	2.4%
Consumer Staples	7.4%	Cash/Equivalents	1.2%
Telecommunication Services	6.9%		
Energy	5.4%		
Materials	4.5%		
Utilities	2.8%		
Real Estate	2.6%		
Other	1.5%		

*As of previous quarter end

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

4Q

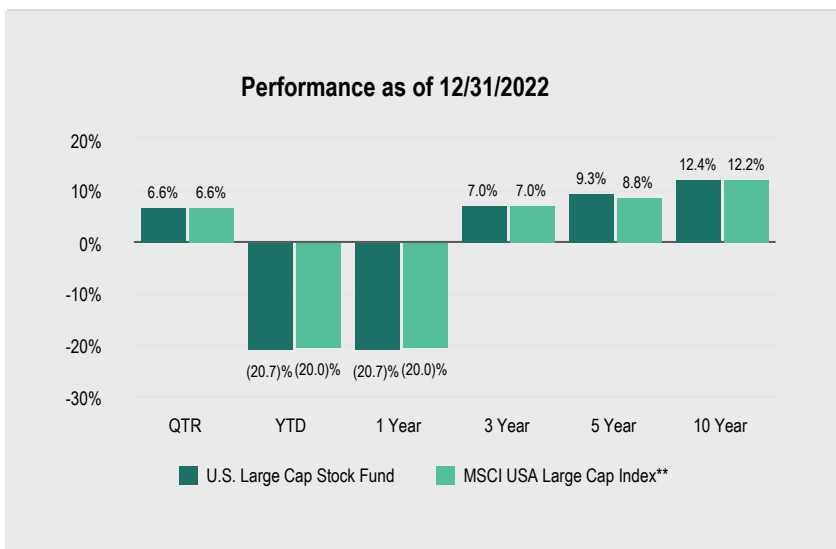
Benchmark	MSCI USA Large Cap Index
Volatility and Risk	High
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$1,886.1
Investment Mgmt. Fee*	0.05%

Investment Objective & Strategy

The fund seeks to provide long-term capital appreciation and dividend income primarily by investing in the common stock of companies 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.

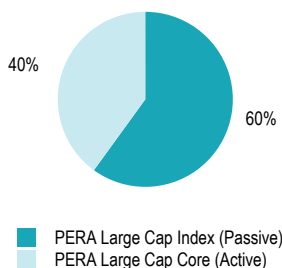
Principal Risks

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



Annual Returns	2022	2021	2020	2019	2018
U.S. Large Cap Stock Fund	(20.7)%	26.8%	21.6%	33.3%	(4.5)%
MSCI USA Large Cap Index**	(20.0)%	26.7%	20.8%	31.0%	(4.8)%

Fund Managers



Market Cap	% of Fund
Mega	40.2%
Large	56.7%
Medium	3.1%
Small	0.0%
Micro	0.0%

Sector Allocation	% of Fund	% of Benchmark
Information Technology	29.4%	27.6%
Health Care	15.1%	16.4%
Consumer Discretionary	11.2%	9.9%
Financials	10.6%	11.1%
Consumer Staples	7.2%	7.5%
Industrials	7.1%	7.7%
Communication Services	7.0%	7.8%
Energy	4.9%	5.3%
Materials	2.3%	2.2%
Utilities	2.2%	2.5%
Real Estate	2.1%	2.0%
Other	0.9%	0.0%

Top Holdings	% of Fund
Apple Inc	7.4%
Microsoft Corp	6.3%
Amazon.com Inc	3.0%
Alphabet Inc- Cl A	3.0%
UnitedHealth Group Inc	2.4%
JPMorgan Chase & Co	1.8%
Johnson & Johnson	1.8%
Visa Inc	1.6%
Mastercard Inc	1.5%
Chevron Corp	1.5%
Total # of Stock Holdings	298

*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

Fund Information

4Q

2022

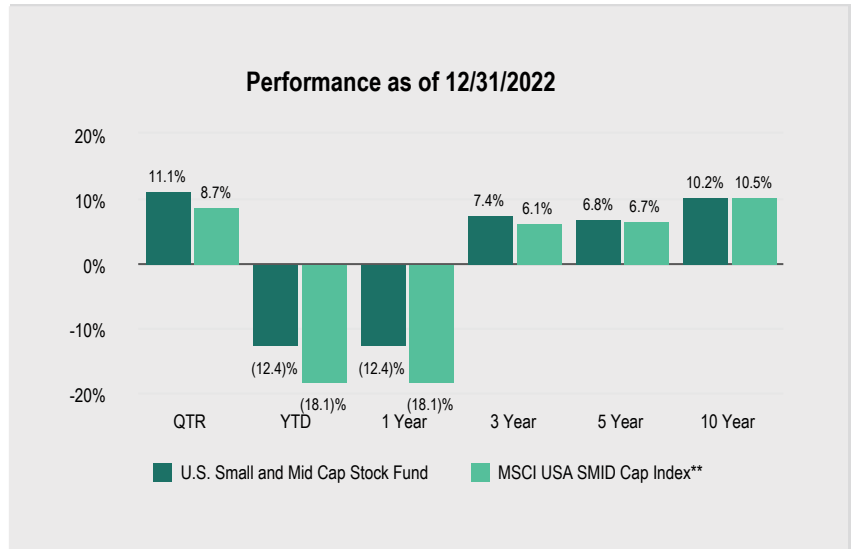
Benchmark	MSCI USA SMID Cap Index
Volatility and Risk	High
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$373.8
Investment Mgmt. Fee*	0.15%

Investment Objective & Strategy

The fund seeks to provide long-term capital appreciation and dividend income primarily by investing in the common stock of companies 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.

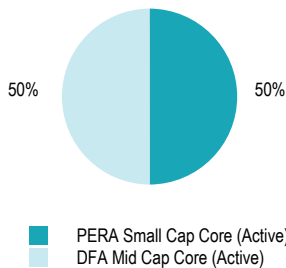
Principal Risks

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



Annual Returns	2022	2021	2020	2019	2018
U.S. Small and Mid Cap Stock Fund	(12.4)%	23.9%	14.2%	28.4%	(12.5)%
MSCI USA SMID Cap Index**	(18.1)%	22.2%	19.4%	28.5%	(10.0)%

Fund Managers



Market Cap	% of Fund
Mega	0.0%
Large	23.1%
Medium	37.2%
Small	39.7%
Micro	0.0%

Sector Allocation	% of Fund	% of Benchmark
Financials	17.9%	14.8%
Industrials	17.1%	16.6%
Information Technology	13.2%	14.1%
Health Care	10.9%	12.5%
Consumer Discretionary	9.8%	11.1%
Materials	8.0%	5.8%
Energy	6.6%	5.2%
Real Estate	5.7%	7.6%
Utilities	4.1%	5.1%
Consumer Staples	4.0%	3.7%
Communication Services	1.7%	3.5%
Other	1.2%	0.0%

Top Holdings	% of Fund
Curtiss-Wright Corp	1.1%
Bruker Corp	1.0%
nVent Electric PLC	1.0%
Novanta Inc	0.9%
Graco Inc	0.9%
Ovintiv Inc	0.9%
Comfort Systems USA Inc	0.9%
McGrath RentCorp	0.9%
Texas Roadhouse Inc	0.9%
RBC Bearings Inc	0.9%
Total # of Stock Holdings	410

*As of previous quarter end

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

Fund Information

4Q

2022

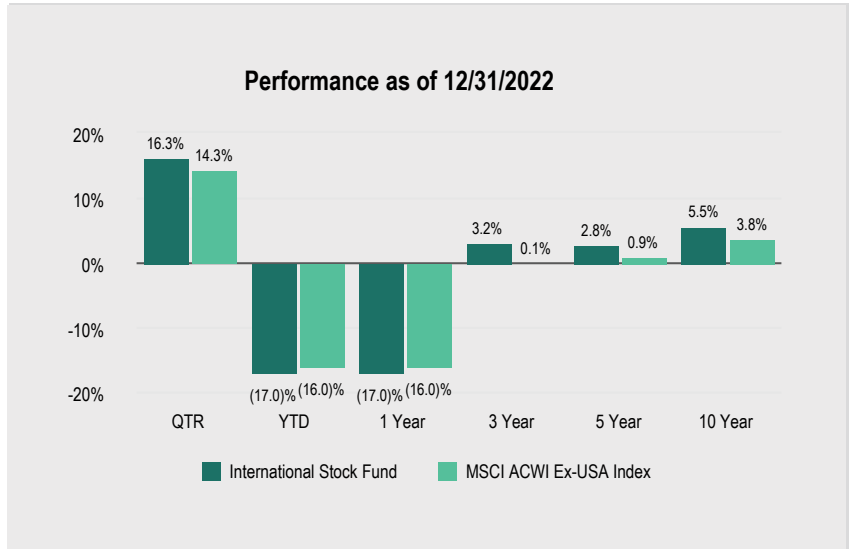
Benchmark	MSCI ACWI Ex-USA Index
Volatility and Risk	High
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$441.7
Investment Mgmt. Fee*	0.27%

Investment Objective & Strategy

The fund seeks to provide long-term capital appreciation and dividend income primarily by investing in the common stock of companies 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.

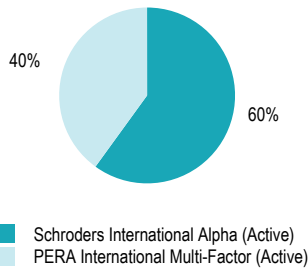
Principal Risks

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



Annual Returns	2022	2021	2020	2019	2018
International Stock Fund	(17.0)%	10.9%	19.5%	24.5%	(16.1)%
MSCI ACWI Ex-USA Index	(16.0)%	7.8%	10.7%	21.5%	(14.2)%

Fund Managers



Market Cap	% of Fund
Mega	6.3%
Large	55.0%
Medium	19.2%
Small	18.9%
Micro	0.6%

Regional Allocation	% of Fund
World Ex-USA	71.7%
Europe Developed	49.0%
Asia Pacific Developed	17.2%
North America	4.1%
Other	1.4%
Emerging Markets	23.4%
United States	4.9%

Top Holdings	% of Fund
Samsung Electronics Co Ltd	2.5%
Taiwan Semiconductor Manufacturing	2.3%
Shell PLC	2.2%
SAP SE	2.1%
AIA Group Ltd	2.1%
Nestle SA	2.0%
Roche Holding AG	1.9%
AstraZeneca PLC	1.7%
HDFC Bank Ltd	1.7%
Schneider Electric SE	1.7%
Total # of Stock Holdings	627

Sector Allocation	% of Fund	% of Benchmark
Industrials	15.5%	12.3%
Financials	15.2%	20.8%
Information Technology	14.9%	10.8%
Consumer Discretionary	13.5%	11.4%
Health Care	9.5%	9.8%
Consumer Staples	8.9%	8.9%
Communication Services	6.1%	5.9%
Energy	5.4%	6.0%
Materials	3.4%	8.4%
Utilities	3.1%	3.4%
Other	2.7%	0.0%
Real Estate	1.8%	2.3%

*As of previous quarter end

Fund Information

4Q

2022

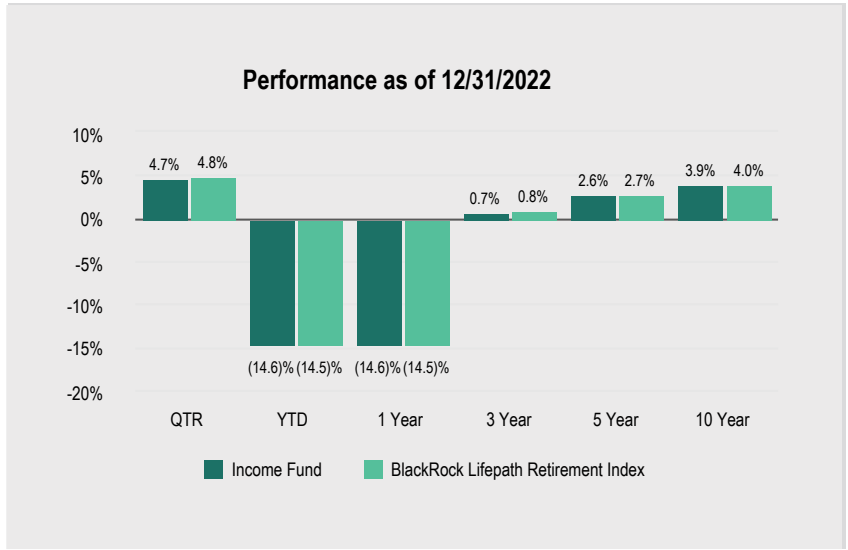
Benchmark	BR Lifepath Retirement Index
Volatility and Risk	Low
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$264.4
Investment Mgmt. Fee*	0.07%

Investment Objective & Strategy

The fund seeks current 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.

Principal Risks

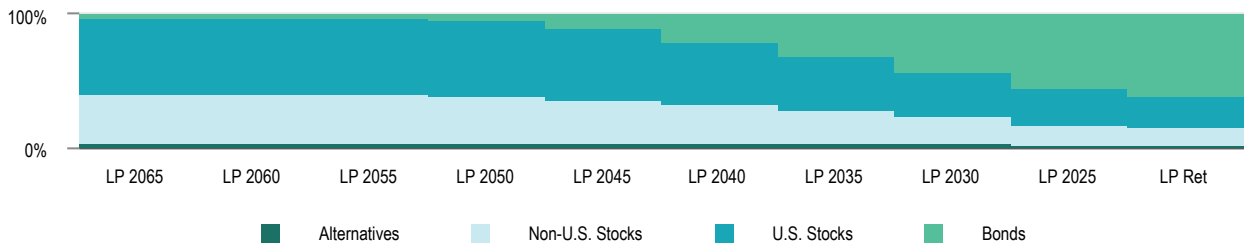
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments



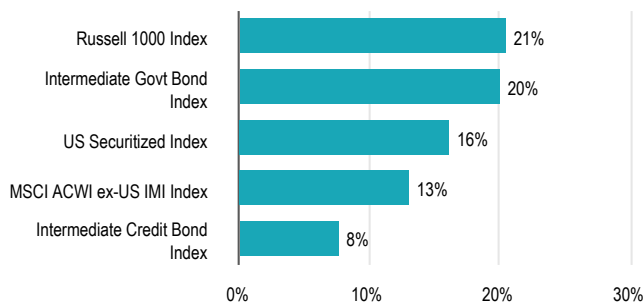
Annual Returns	2022	2021	2020	2019	2018
Income Fund	(14.6)%	6.9%	11.9%	15.6%	(3.6)%
BR LifePath Retirement Index	(14.5)%	7.0%	11.8%	15.6%	(3.5)%

Fund Information

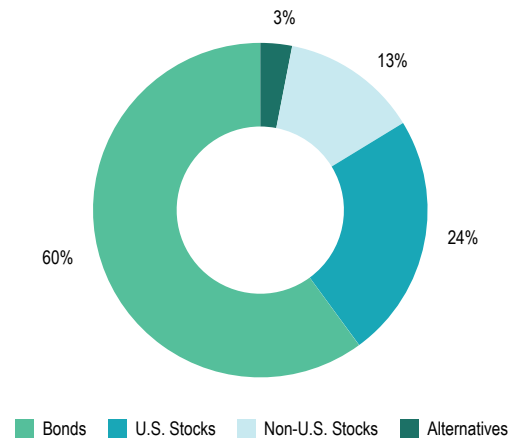
Target Retirement Date Series Glidepath



Top Holdings



Portfolio Composition



Fund Manager

BlackRock (Passive)

Target Allocation

100%

*As of previous quarter end

4Q

2022

Fund Information

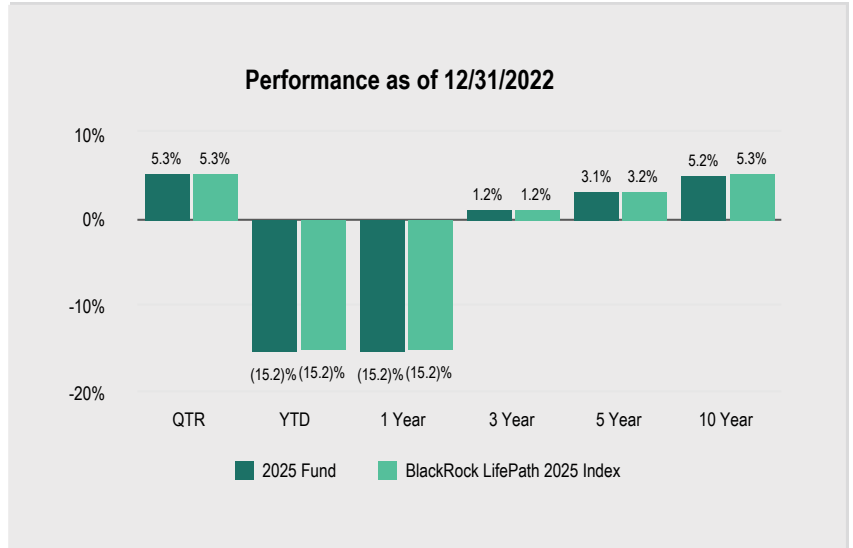
Benchmark	BR Lifepath 2025 Index
Volatility and Risk	Low
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$202.2
Investment Mgmt. Fee*	0.07%

Investment Objective & Strategy

The fund seeks a combination of income and capital 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 PERA Advantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

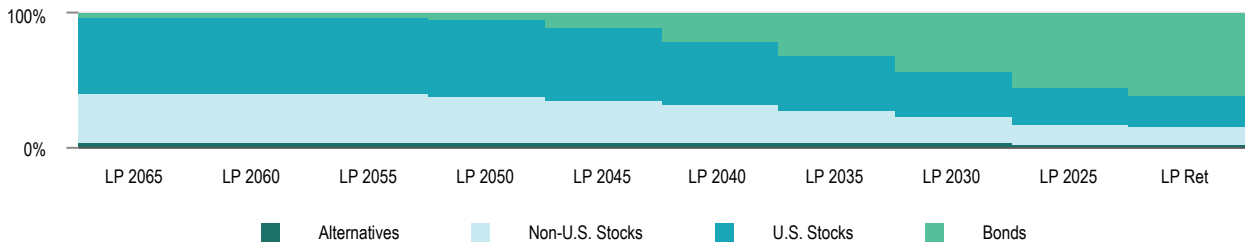
Principal Risks

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

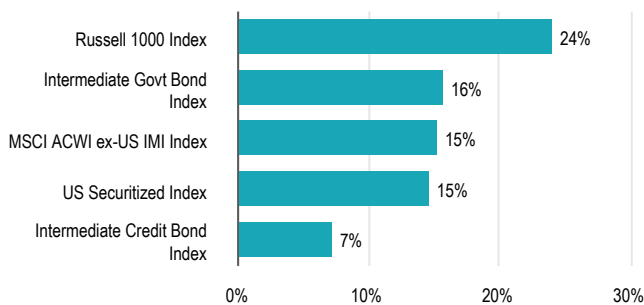


Annual Returns	2022	2021	2020	2019	2018
2025 Fund	(15.2)%	9.0%	12.2%	18.6%	(4.9)%
BlackRock LifePath 2025 Index	(15.2)%	9.1%	12.0%	18.5%	(4.9)%

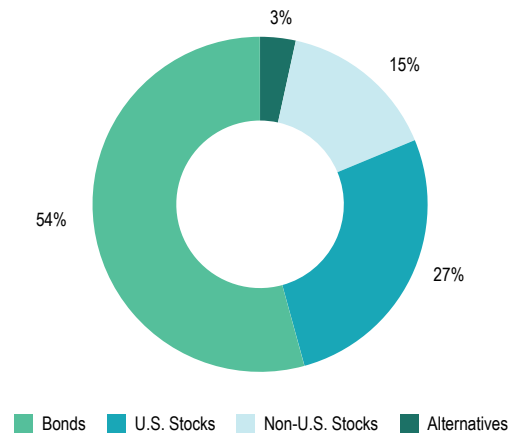
Target Retirement Date Series Glidepath



Top Holdings



Portfolio Composition



Fund Manager

BlackRock (Passive)

Target Allocation

100%

*As of previous quarter end

4Q

2022

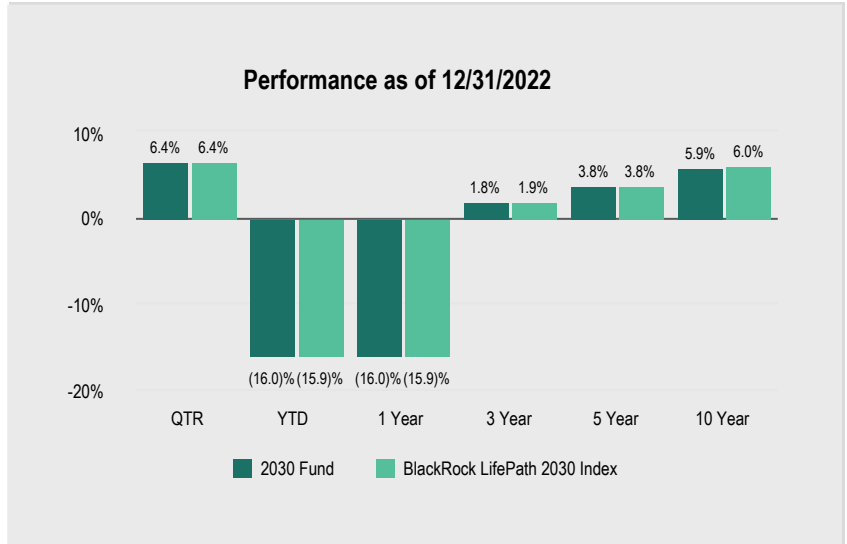
Benchmark	BR Lifepath 2030 Index
Volatility and Risk	Moderate
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$207.7
Investment Mgmt. Fee*	0.07%

Investment Objective & Strategy

The fund seeks capital appreciation with some investment in bonds for 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 2030, at which time the fund will reach its most conservative risk level and be blended into the PERA Advantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

Principal Risks

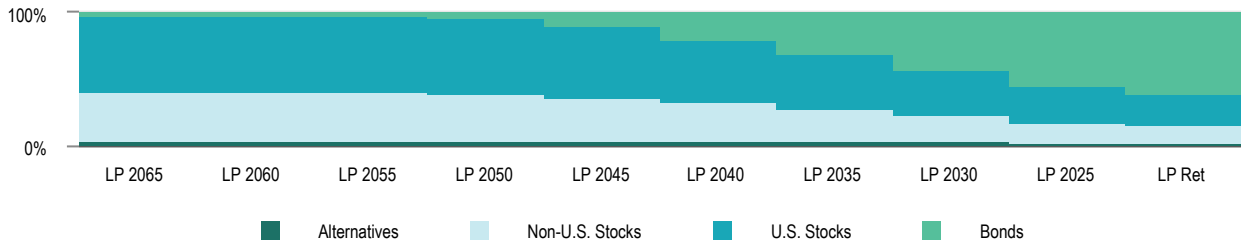
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments



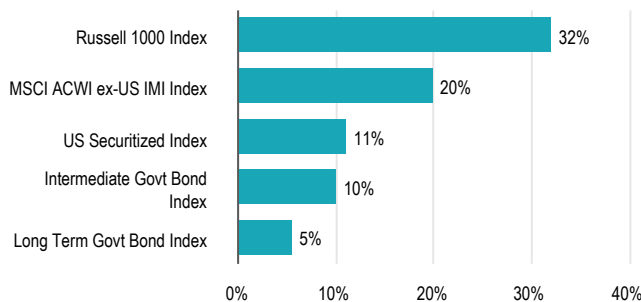
Annual Returns

	2022	2021	2020	2019	2018
2030 Fund	(16.0)%	11.4%	12.9%	20.8%	(5.8)%
BlackRock LifePath 2030 Index	(15.9)%	11.5%	12.7%	20.7%	(5.8)%

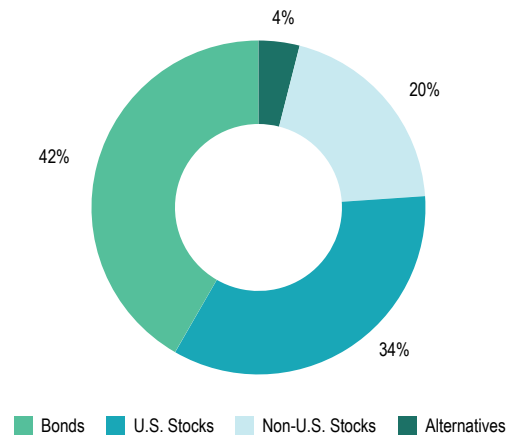
Target Retirement Date Series Glidepath



Top Holdings



Portfolio Composition



Fund Manager

BlackRock (Passive)

Target Allocation

100%

*As of previous quarter end

Fund Information

4Q

2022

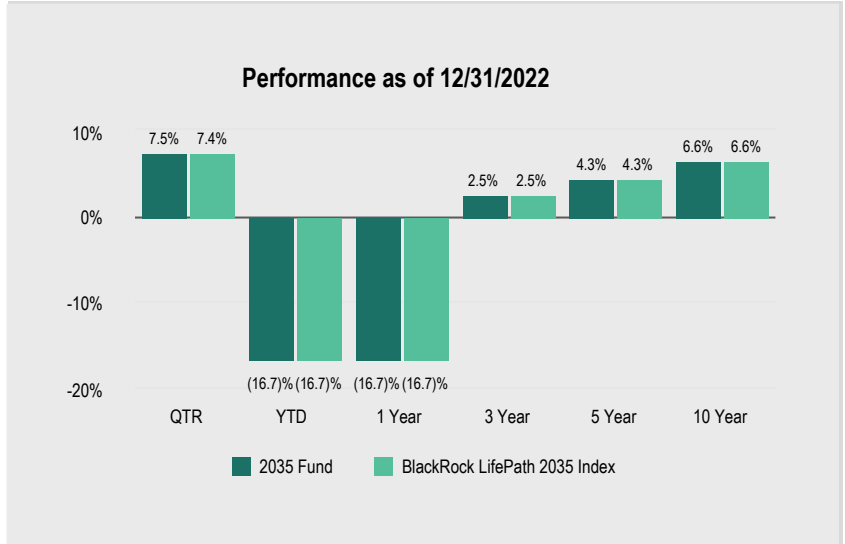
Benchmark	BR Lifepath 2035 Index
Volatility and Risk	Moderate
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$202.3
Investment Mgmt. Fee*	0.07%

Investment Objective & Strategy

The fund seeks capital appreciation with some investment in bonds for 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 2035, at which time the fund will reach its most conservative risk level and be blended into the PERA Advantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

Principal Risks

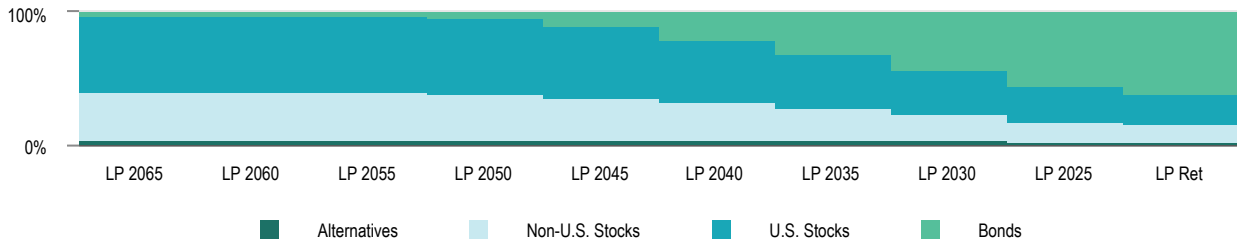
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments



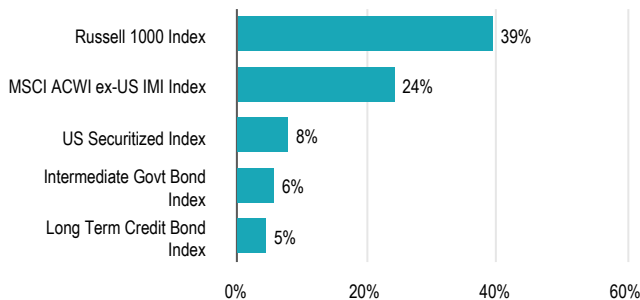
Annual Returns	2022	2021	2020	2019	2018
2035 Fund	(16.7)%	13.8%	13.5%	22.8%	(6.5)%
BlackRock LifePath 2035 Index	(16.7)%	13.9%	13.4%	22.7%	(6.6)%

Fund Information

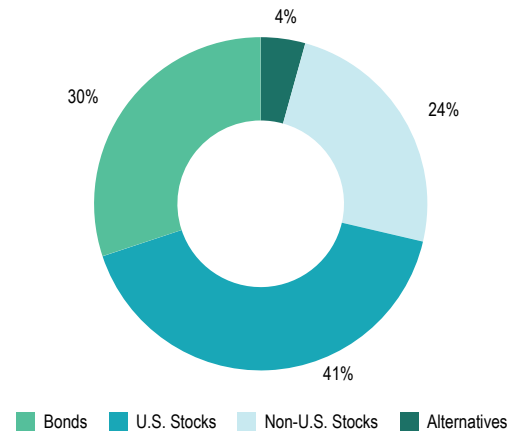
Target Retirement Date Series Glidepath



Top Holdings



Portfolio Composition



Fund Manager

BlackRock (Passive)

Target Allocation

100%

*As of previous quarter end

4Q

2022

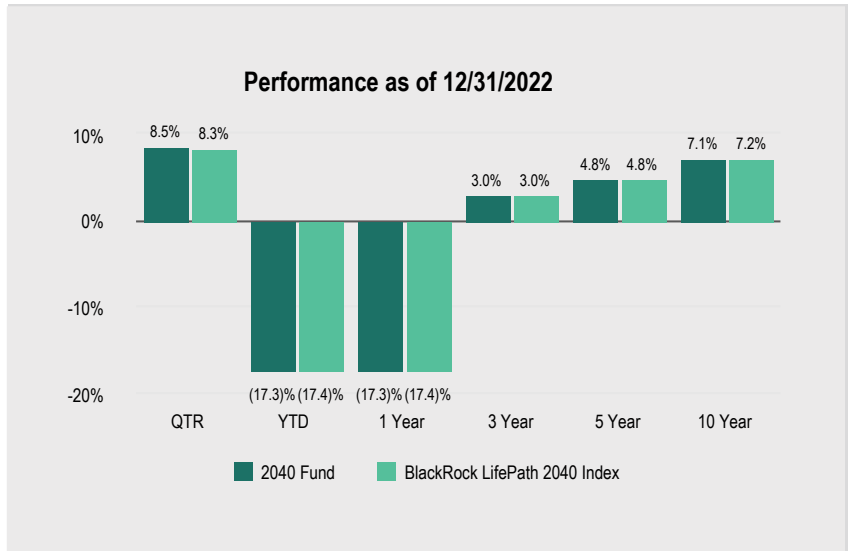
Benchmark	BR Lifepath 2040 Index
Volatility and Risk	High
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$167.1
Investment Mgmt. Fee*	0.07%

Investment Objective & Strategy

The fund seeks capital appreciation with a minor emphasis on 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 2040, at which time the fund will reach its most conservative risk level and be blended into the PERA Advantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

Principal Risks

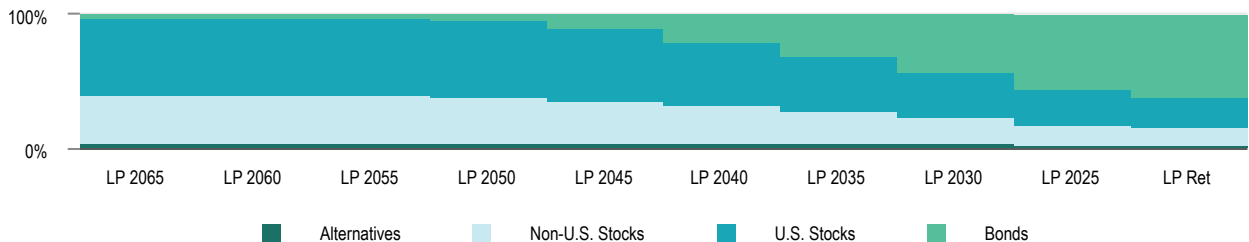
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments



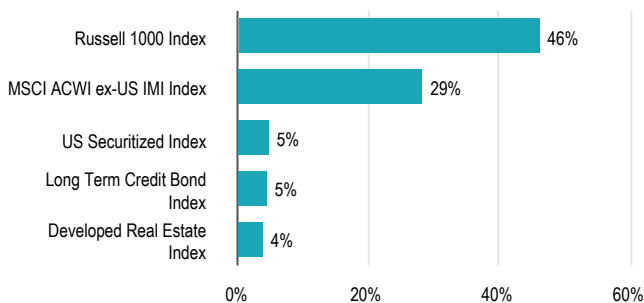
Annual Returns	2022	2021	2020	2019	2018
2040 Fund	(17.3)%	15.9%	14.1%	24.7%	(7.3)%
BlackRock LifePath 2040 Index	(17.4)%	16.0%	14.0%	24.6%	(7.3)%

Fund Information

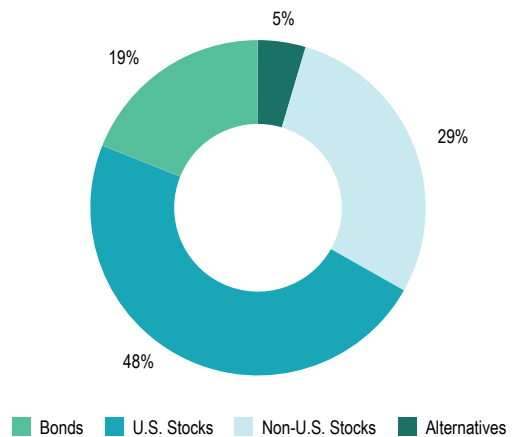
Target Retirement Date Series Glidepath



Top Holdings



Portfolio Composition



Fund Manager

BlackRock (Passive)

Target Allocation

100%

*As of previous quarter end

4Q

2022

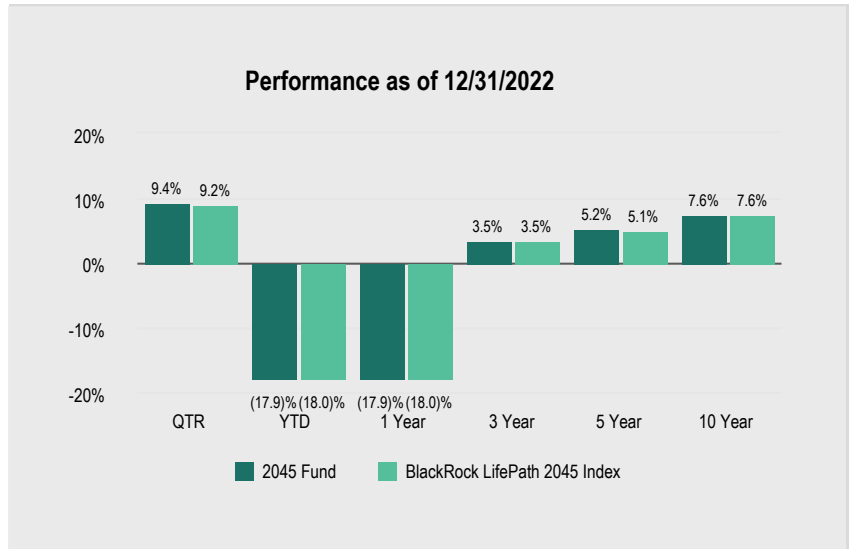
Benchmark	BR Lifepath 2045 Index
Volatility and Risk	High
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$140.0
Investment Mgmt. Fee*	0.07%

Investment Objective & Strategy

The fund seeks capital appreciation with a minor emphasis on 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 PERA Advantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

Principal Risks

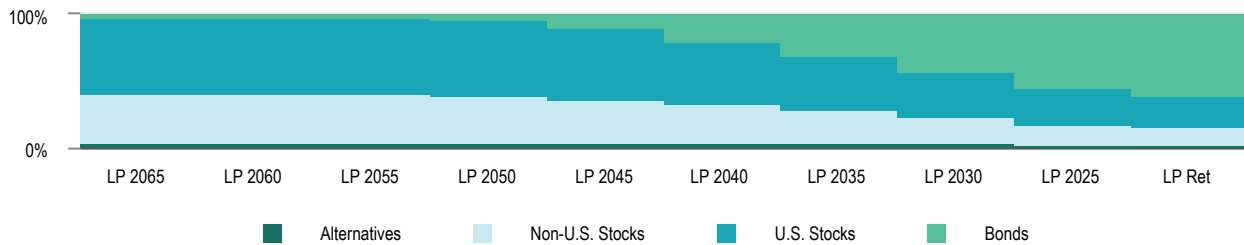
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments



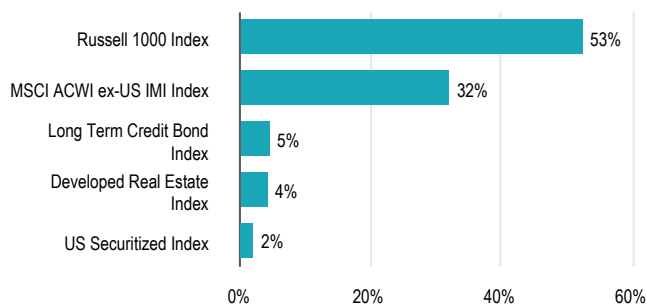
Annual Returns	2022	2021	2020	2019	2018
2045 Fund	(17.9)%	17.7%	14.8%	26.0%	(7.9)%
BlackRock LifePath 2045 Index	(18.0)%	17.7%	14.6%	25.9%	(8.0)%

Fund Information

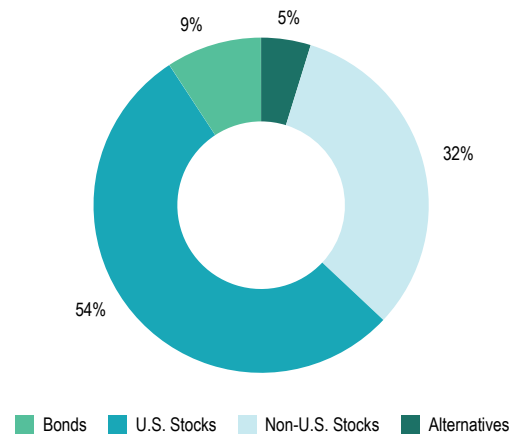
Target Retirement Date Series Glidepath



Top Holdings



Portfolio Composition



Fund Manager

BlackRock (Passive)

Target Allocation

100%

*As of previous quarter end

4Q

2022

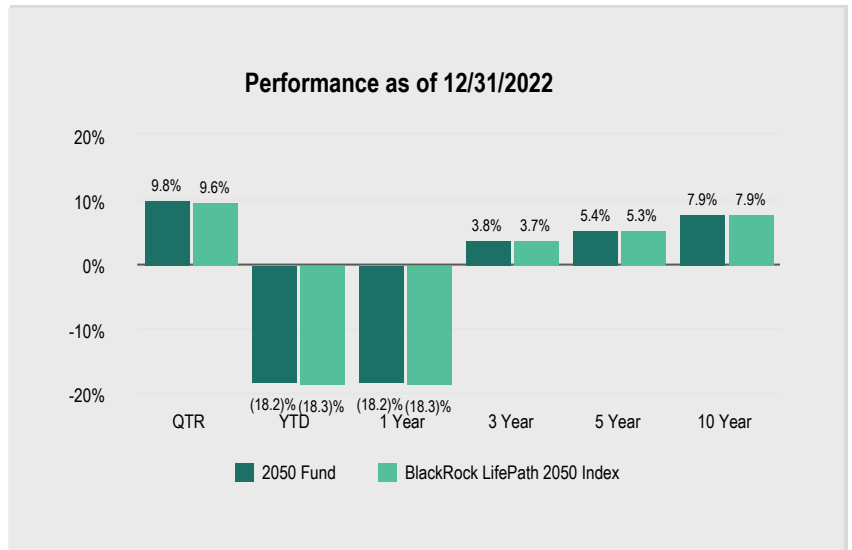
Benchmark	BR Lifepath 2050 Index
Volatility and Risk	High
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$106.9
Investment Mgmt. Fee*	0.07%

Investment Objective & Strategy

The fund seeks capital 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 2050, at which time the fund will reach its most conservative risk level and be blended into the PERA Advantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

Principal Risks

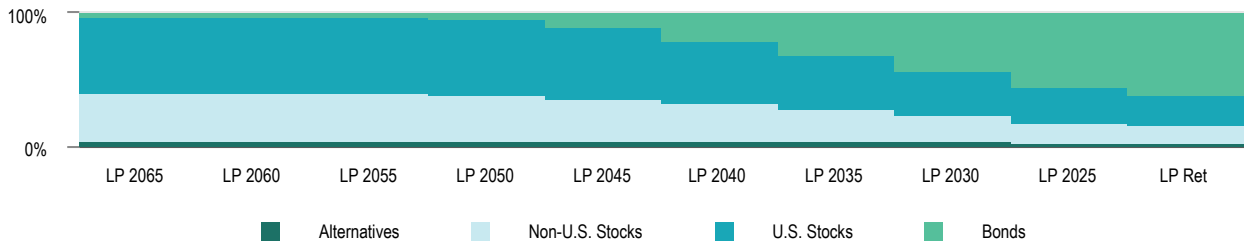
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments



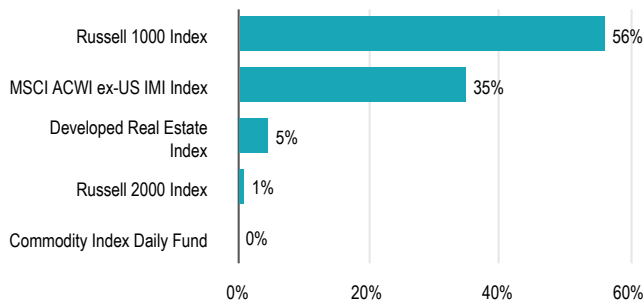
Annual Returns	2022	2021	2020	2019	2018
2050 Fund	(18.2)%	18.6%	15.2%	26.6%	(8.1)%
BlackRock LifePath 2050 Index	(18.3)%	18.6%	15.1%	26.5%	(8.3)%

Fund Information

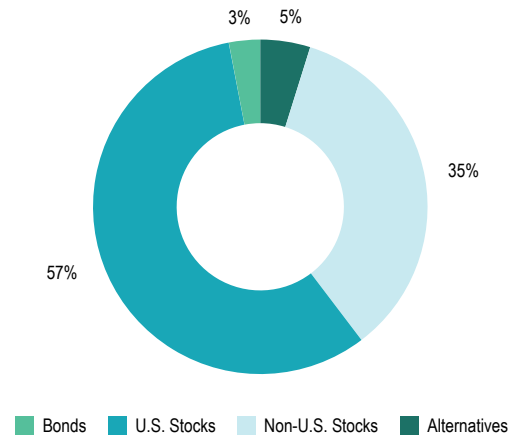
Target Retirement Date Series Glidepath



Top Holdings



Portfolio Composition



Fund Manager

BlackRock (Passive)

Target Allocation

100%

*As of previous quarter end

4Q

2022

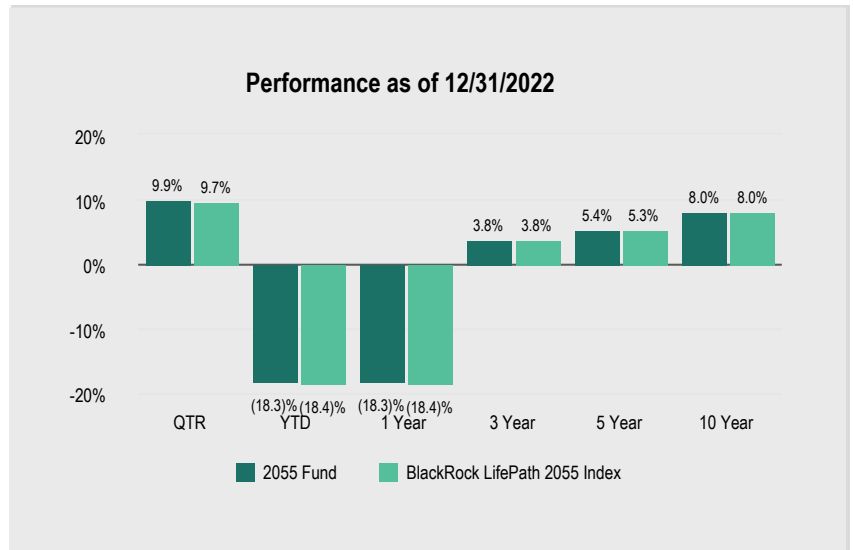
Benchmark	BR Lifepath 2055 Index
Volatility and Risk	High
Fund Inception Date	10/1/2011
Total Fund Assets (\$M)	\$69.3
Investment Mgmt. Fee*	0.07%

Investment Objective & Strategy

The fund seeks capital 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 2055, at which time the fund will reach its most conservative risk level and be blended into the PERA Advantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

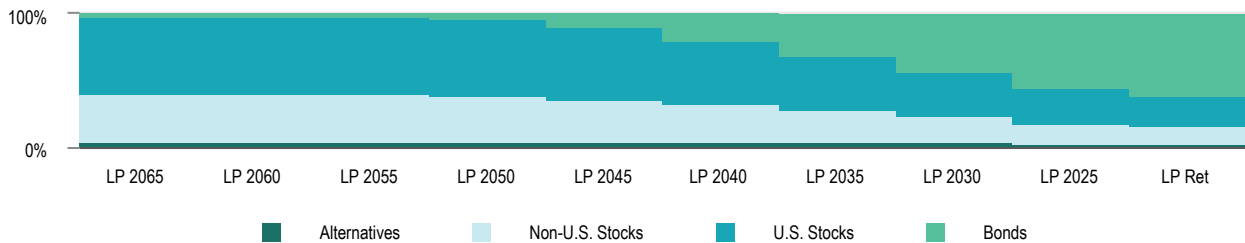
Principal Risks

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

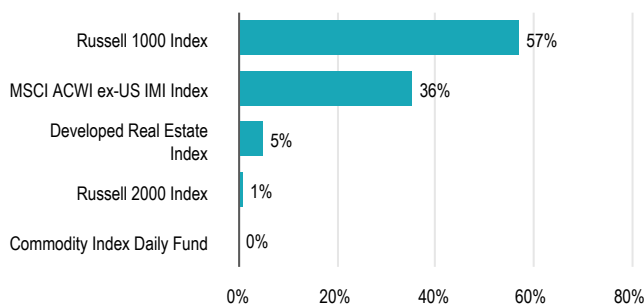


Annual Returns	2022	2021	2020	2019	2018
2055 Fund	(18.3)%	18.8%	15.3%	26.6%	(8.2)%
BlackRock LifePath 2055 Index	(18.4)%	18.8%	15.2%	26.6%	(8.3)%

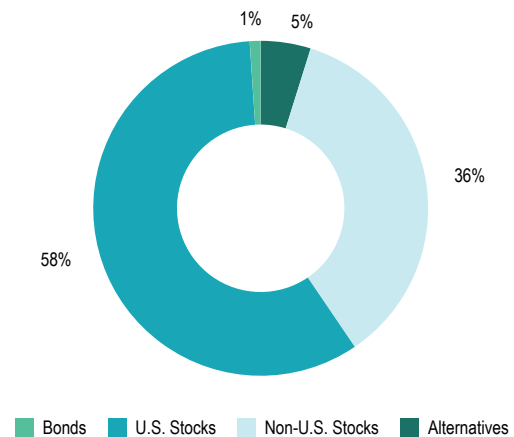
Target Retirement Date Series Glidepath



Top Holdings



Portfolio Composition



Fund Manager

BlackRock (Passive)

Target Allocation

100%

*As of previous quarter end

Fund Information

4Q

2022

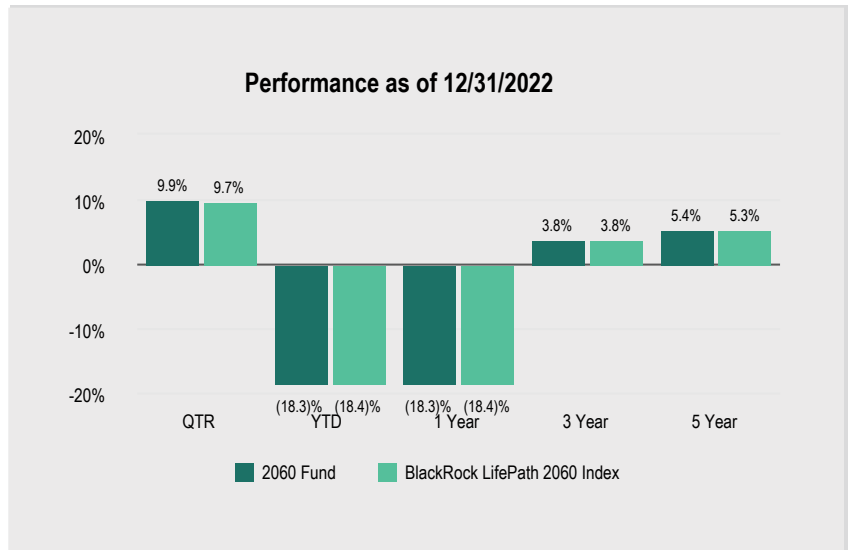
Benchmark	BR Lifepath 2060 Index
Volatility and Risk	High
Fund Inception Date	2/1/2015
Total Fund Assets (\$M)	\$31.2
Investment Mgmt. Fee*	0.07%

Investment Objective & Strategy

The fund seeks capital 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 2060, at which time the fund will reach its most conservative risk level and be blended into the PERA Advantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

Principal Risks

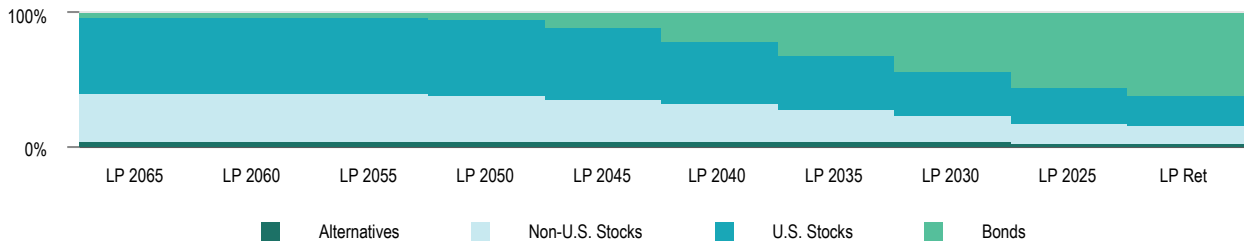
Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Suitability, Active Strategy, Asset Allocation, Underlying Fund, Equity Securities, Foreign Securities, Fixed Income Securities, Alternative Investments



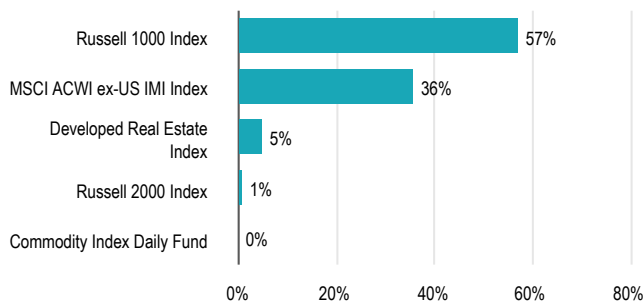
Annual Returns	2022	2021	2020	2019	2018
2060 Fund	(18.3)%	18.8%	15.3%	26.6%	(8.2)%
BlackRock LifePath 2060 Index	(18.4)%	18.8%	15.2%	26.6%	(8.3)%

Fund Information

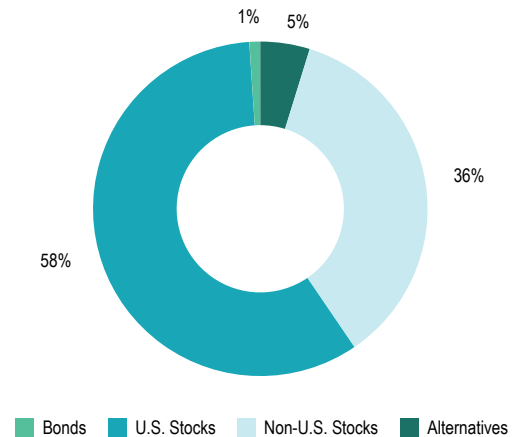
Target Retirement Date Series Glidepath



Top Holdings



Portfolio Composition



Fund Manager

BlackRock (Passive)

Target Allocation

100%

*As of previous quarter end

4Q

2022

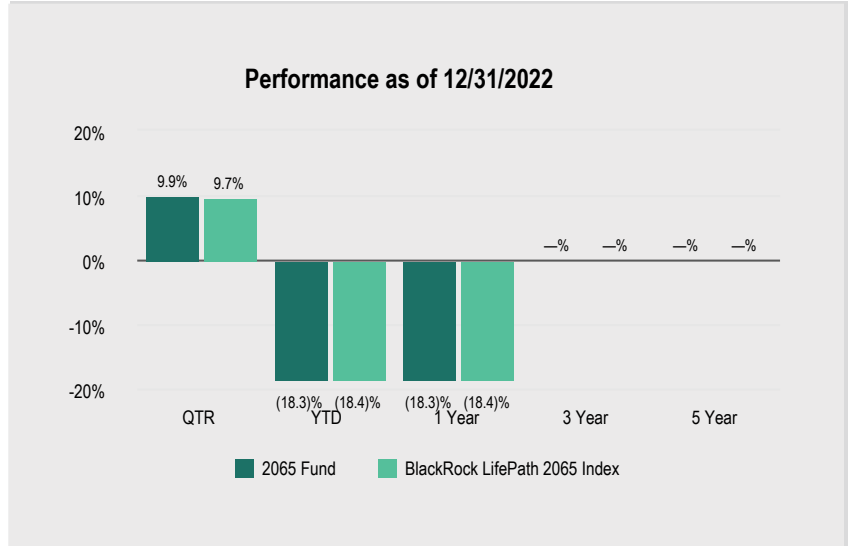
Benchmark	BR Lifepath 2065 Index
Volatility and Risk	High
Fund Inception Date	4/1/2020
Total Fund Assets (\$M)	\$7.4
Investment Mgmt. Fee*	0.07%

Investment Objective & Strategy

The fund seeks capital 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 2065, at which time the fund will reach its most conservative risk level and be blended into the PERA Advantage Income Fund. By investing in a single target retirement date fund you may capture diversified investment opportunities without having to manage multiple funds.

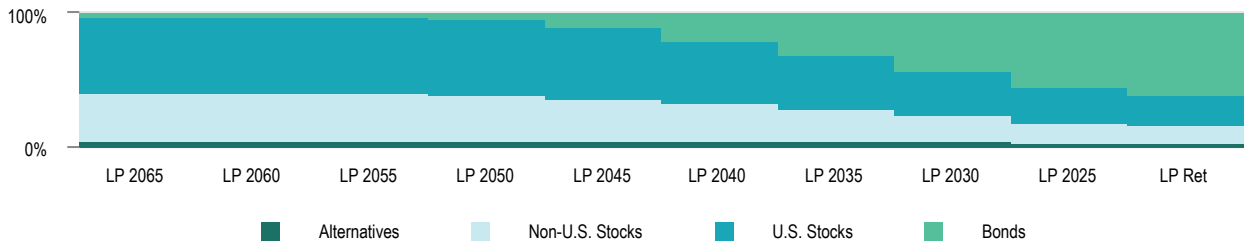
Principal Risks

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

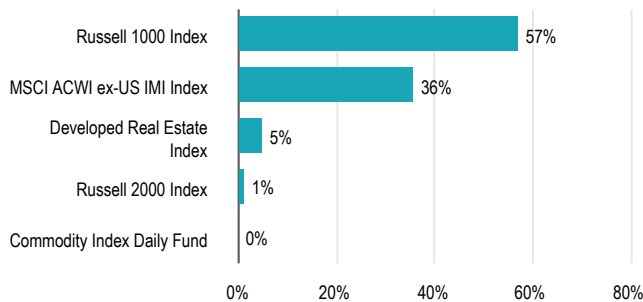


Annual Returns	2022	2021	2020	2019	2018
2065 Fund	(18.3)%	18.8%	—%	—%	—%
BlackRock LifePath 2065 Index	(18.4)%	18.8%	—%	—%	—%

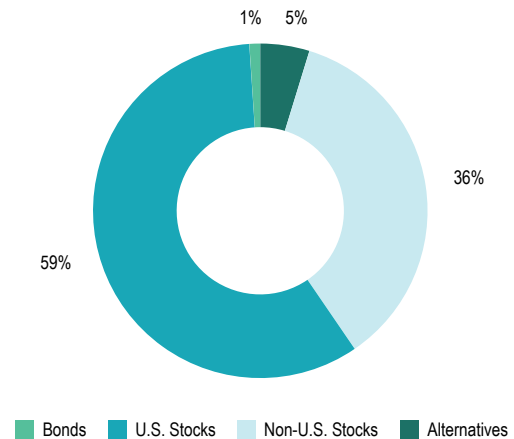
Target Retirement Date Series Glidepath



Top Holdings



Portfolio Composition



Fund Manager

BlackRock (Passive)

Target Allocation

100%

*As of previous quarter end

Fund Information

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 coperaplus.org or by calling 833-4-COPERA (833-426-7372).

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 monthly fee of \$1.00 per participant for the 401(k) and DC Plans and \$1.50 per participant for the 457 Plan in addition to 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 investment management fees (and net of administrative fees prior to December 3, 2021) and calculated using time-weighted net asset values. Returns for periods greater than one year are annualized. Performance prior to January 1, 2020, was calculated by RVK, Inc. and by Callan LLC thereafter, and begins the first full month after initial funding. Unless indicated otherwise, PERAdvantage Funds commenced on October 1, 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.



Public Employees' Retirement Association of Colorado
PO Box 5800
Denver, CO 80217-5800
800-759-7372 | copera.org

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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.