



# Target Date Fund Review

Ohio Deferred Compensation Program (“Ohio DC”)

May 16, 2023



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# Executive Summary

The purpose of this presentation is to provide the Board with a review of the Ohio DC's default investment option, the BlackRock LifePath Index Funds.

- **Plan Utilization – The BlackRock LifePath Index Funds are the second most popular investment option in the Plan after the Stable Value Option, making up 19% of total assets.**
  - There is larger adoption of the target date funds among the 40-and-under age group.
  - The LifePath Funds are the designated default investment option for the auto-enrollment program.
  - A minority of participants are invested in multiple target date funds, or a target date fund in addition to one or more core options.
  
- **Investment Strategy – BlackRock continues to be a leader in the target date space, ranking fourth in target date assets under management.**
  - There were no changes to the investment process, philosophy, or investment objective for any LifePath strategies. RVK remains confident that BlackRock maintains a strong and experienced team.
  - Passive implementation of underlying investment strategies for the funds' strategic allocation.
  - Strategic glidepath allocation is more conservative relative to peer products approaching retirement and more aggressive in the longer-dated vintages.
  - In 2022, BlackRock disaggregated its US Bond allocation, which RVK found to be reasonable and aligned with the stated objectives and philosophy.

# Executive Summary

- **Performance – The Funds have performed in-line with their respective custom target date indices.**
  - Performance versus peers has been challenged recently due to glidepath positioning, but most vintages have performed above median over the 3-, 5-, and 7-year trailing periods.
  - The 2035 through 2025 funds—the more conservative fund allocations—have trailed the median of their respective peers over all trailing periods.
- **Fees – The current Institutional Premium share class charges 6 basis points and ranks in the top percentile (lowest fee) versus peers across all vintages.**
- **LifePath Litigation Update –** In early August 2022, lawsuits were filed against a number of large plan sponsors alleging fiduciary breaches due to the continued offering of BlackRock LifePath Target Date Funds on the investment lineup. Three lawsuits have been dismissed so far, with judges generally rejecting the idea that the relative performance of comparator TDF series cited in the allegations represented significant enough evidence for the cases to move forward.
- **No Action is recommended to the Board as a result of this review. RVK recommends retaining BlackRock.**

# Target Date Fund Monitoring & Evaluation

Plan sponsors are responsible for prudent selection and monitoring of the plan's Target Date Fund series. While Ohio DC is not subject to ERISA, the DOL offers useful tips for use by plan sponsors and fiduciaries when selecting and monitoring target date funds.

DOL Target Date Fund Tips	
1	Establish a process for comparing and selecting TDFs.
2	Establish a process for the periodic review of selected TDFs.
3	Understand the fund's investments– the allocation in different asset classes (stocks, bonds, cash), individual investments, and how these will change over time.
4	Review the funds' fees and investment expenses.
5	Inquire about whether a custom or non-proprietary target date fund would be a better fit for your plan.
6	Develop effective employee communications.
7	Take advantage of available sources of information to evaluate the TDF and recommendations you received regarding the TDF selection.
8	Document the process.

Ohio DC	
●	Periodic Strategic Reviews
●	Quarterly / Periodic Reviews
●	Quarterly Reviews
●	Quarterly Reviews
●	Periodic Strategic Reviews
●	Ohio DC provides sufficient communications
●	Quarterly / Strategic Reviews
●	Quarterly / Strategic Reviews

- No action necessary
- RVK recommends further review
- RVK recommends a change to the current plan

# Market Overview

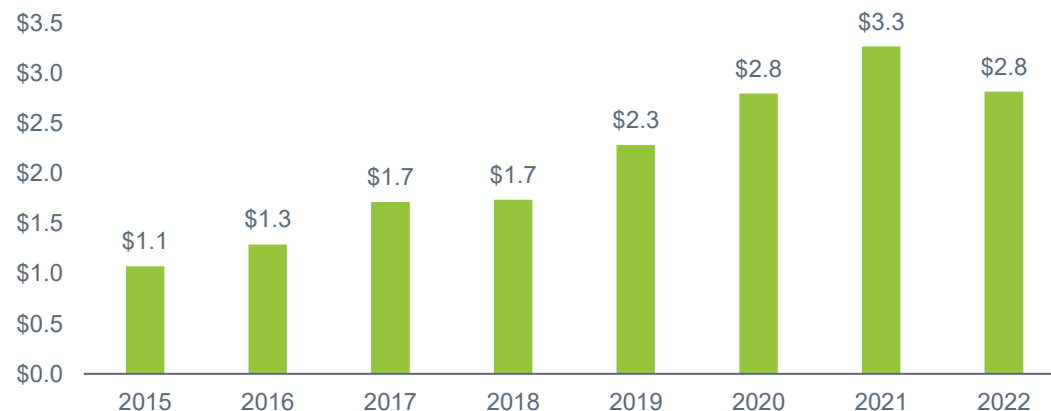
## Target Date Funds



# Target Date Funds Market Overview

- Target date funds saw \$153.3 billion in positive net flows during 2022; however, total assets fell to \$2.8 trillion due to the market downturn.
- Passive target date series (as currently used by Ohio DC) continue to experience more inflows than actively-managed funds.
- Collective Investment Trusts (CITs) continue to benefit from the trend toward lower fees and accounted for 79% of net inflows in 2022. The market share of CITs grew to roughly 47% as of December 31, 2022, up from less than 20% in 2014.
- The industry continues to be top-heavy, with five asset managers representing ~79% of the market, similar to 2021.
- Only Vanguard and BlackRock LifePath Index made the top five for both CIT and mutual fund flows.

**Target Date Fund Assets  
(\$ Trillions)**



**Top 5 Target Date Fund Series**

Manager	Style	Total TDF Assets (\$ Billions)	Market Share
Vanguard	Passive	\$1,056	36%
Fidelity Investments	Active/Hybrid/ Passive	\$399	14%
T. Rowe Price	Active/Hybrid	\$321	12%
<b>BlackRock</b>	<b>Passive/Hybrid</b>	\$249	10%
American Funds	Active	\$224	8%

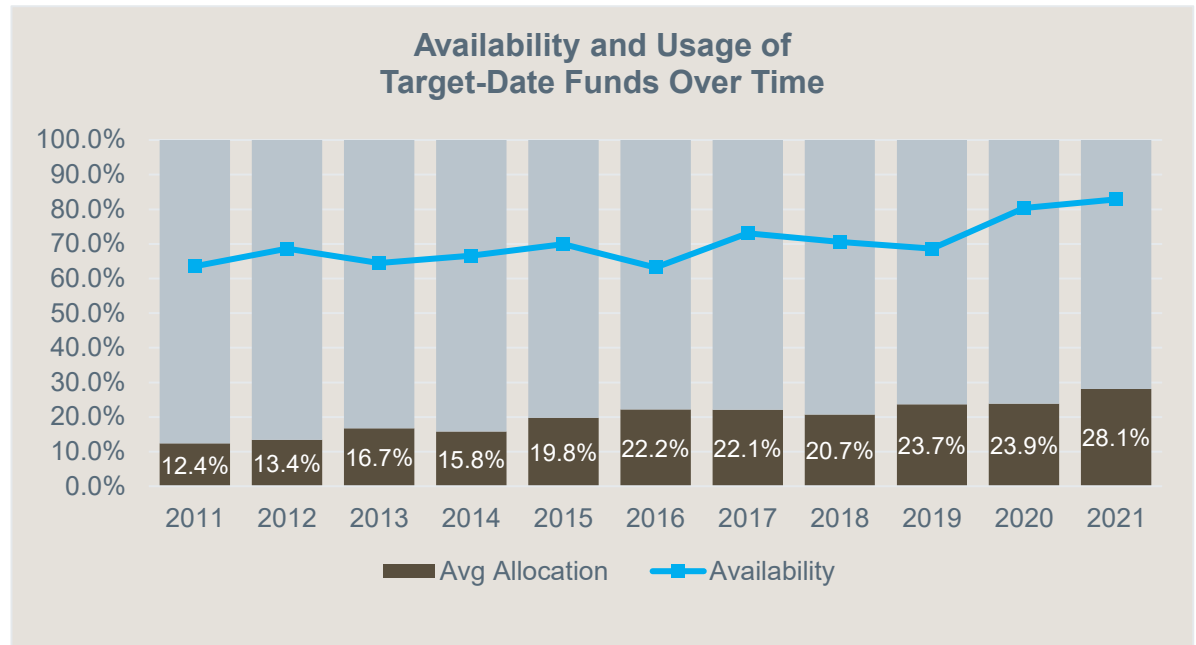
Data shown includes Target Date mutual funds and collective trusts as of 12/31/2022 and is sourced from Morningstar.

# Default Investment Alternative Review

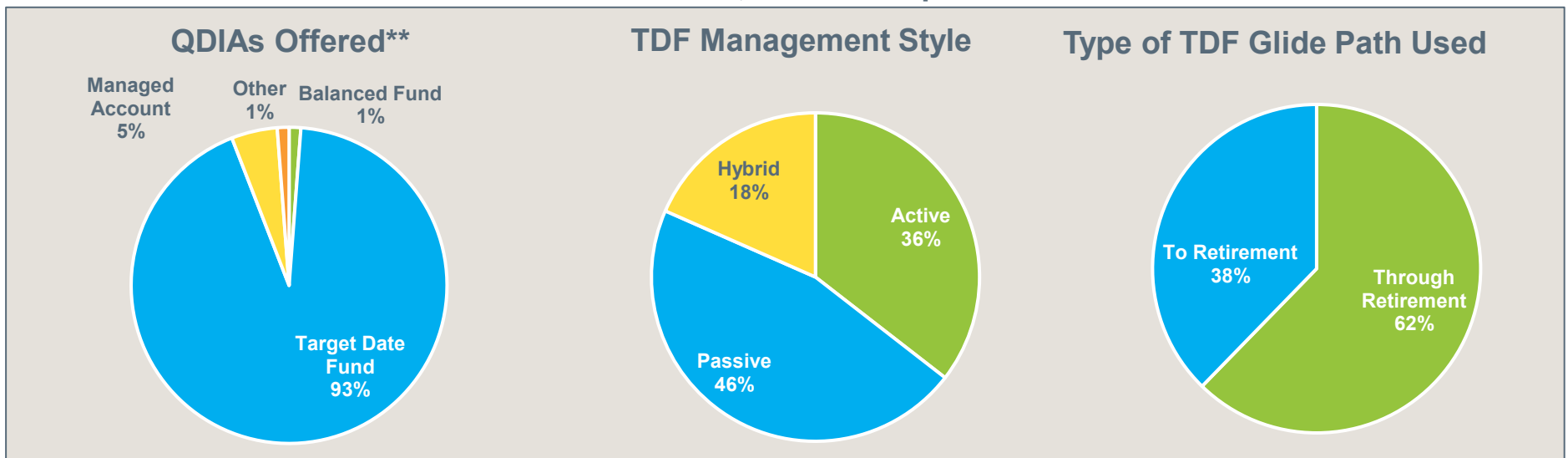
## Target Date Fund Trends

### PSCA's\* 65th Annual Survey Results

- 93% of Plan sponsors with > 5,000+ participants offer TDFs as their Qualified Default Investment Alternative (QDIA).
- The average allocation to TDFs has doubled from 2011 to 2021.
- More plans offer Through glide paths compared with To glide paths.



### DC Plans with > 5,000+ Participants



\*2022 Plan Sponsors Council of America (PSCA) Annual Survey of Profit Sharing and 401(k) Plans. There were 553 Plans respondents, including 294 401(k) Plans and 259 combination profit sharing/401(k) plans. Of the respondents, 90 had greater than 5,000 participants.

\*\*Breakdown of Type of QDIA Used in Plans that offer one.



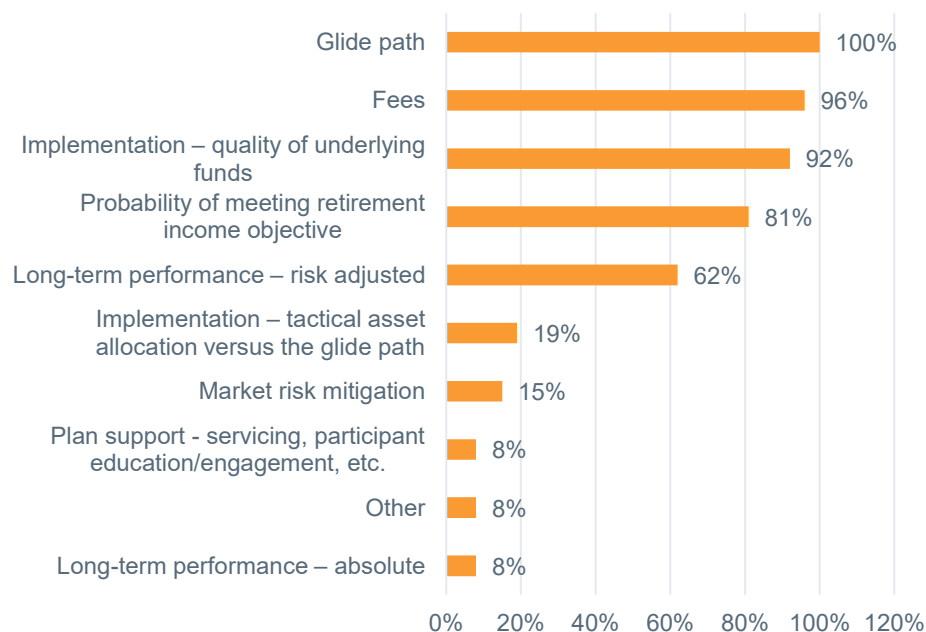
# Default Investment Alternative Review

## Target Date Funds Trends (continued)

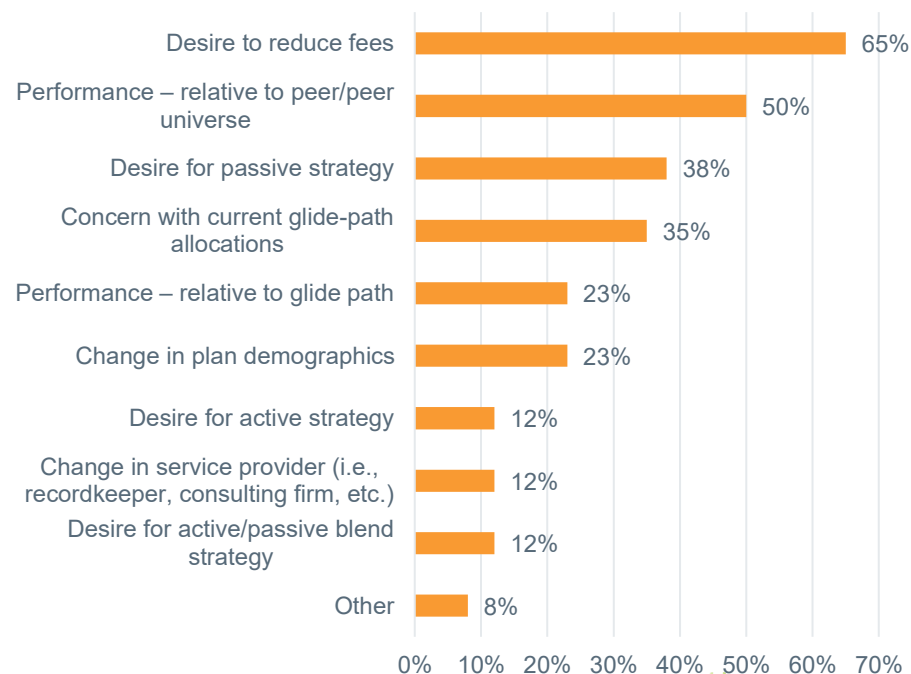
### 2022 PIMCO DC Consultant Study\*

- Glide path structure (asset allocation) and fees continue to be cited as the most important considerations in evaluating TDFs.
  - The quality of underlying funds and the probability of meeting retirement income objectives are getting increased focus as well.
- On the other hand, 65% of clients who expressed interest in changing an existing TDF manager cited a desire to reduce fees, while 50% cited performance concerns.

**Important Considerations for Evaluating TDFs**



**Top Factors for Changing TDF Manager**



\*2022 PIMCO DC Consultant Study – Large/Mid Consultants. Survey respondents were allowed to select up to 5 factors for Key Factors in Evaluating TDFs and up to 3 factors for Top Factors for Changing TDF Manager.

# Plan Participant Utilization

Ohio Deferred Compensation Program

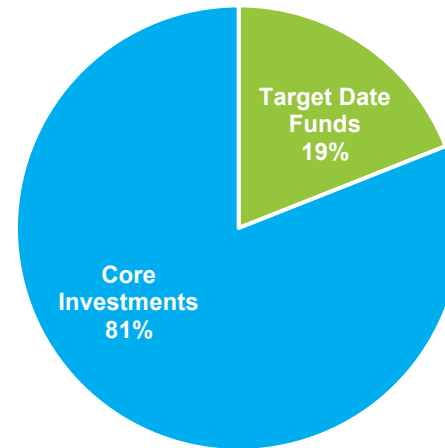


# Target Date Fund Utilization

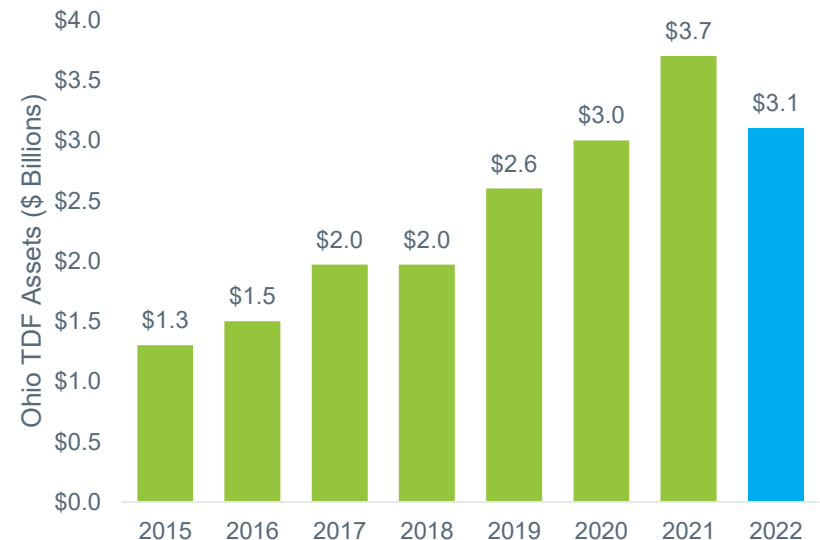
## Observations

- The BlackRock LifePath Funds are the designated default investment option for Ohio DC.
- As of March 31, 2023, participants have \$3.3 billion in assets invested across 9 vintages, representing 19% of total plan assets.
- As a result of participant contributions and market returns, total target date assets for Ohio DC have more than doubled since 2015.
- 40% of participants invest in target date funds as their only option.

## Plan Assets Breakdown

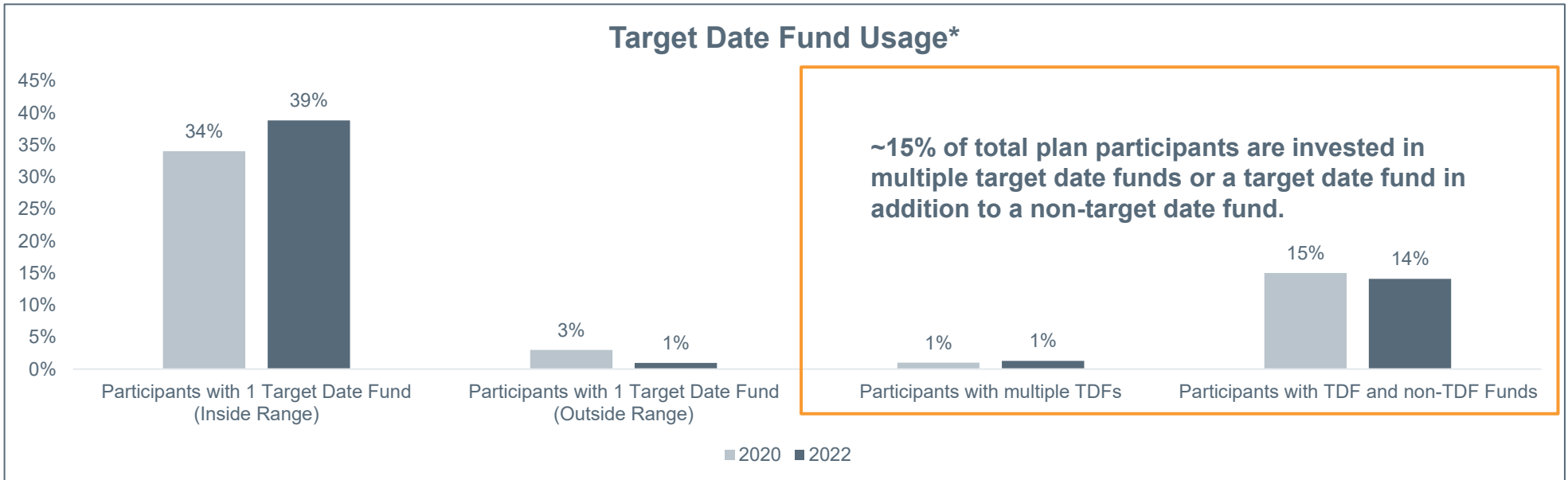
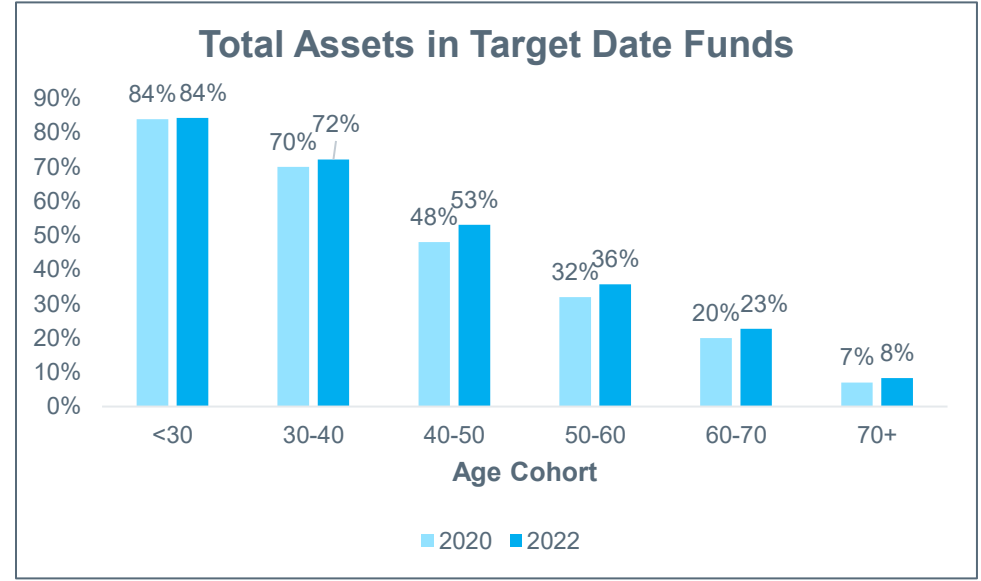
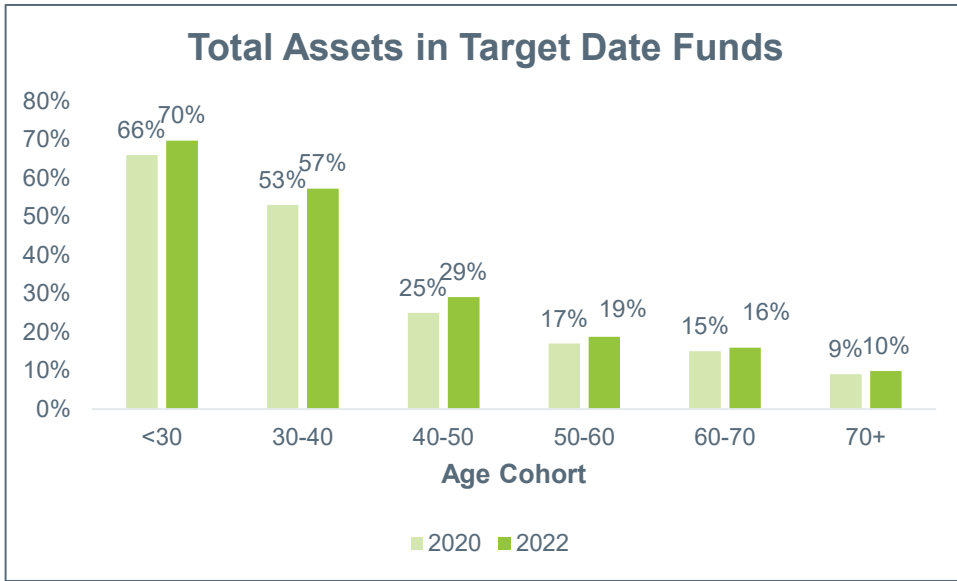


## Ohio DC LifePath Growth (\$ Billions)



Participant information is shown as of 12/31/2022. Percentage shown is based on all participants that invest in target date funds.

# Target Date Fund Utilization



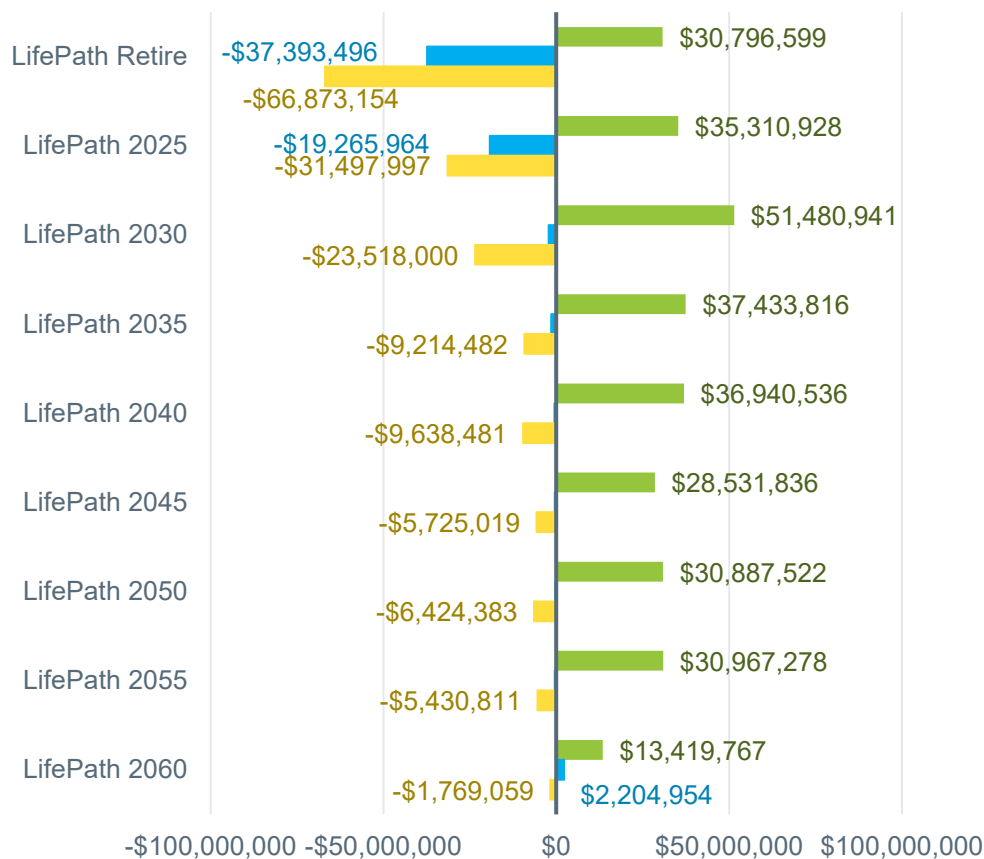
Participant balances are as of 12/31/2020 & 12/31/2022 and were sourced from the Ohio DC Information Technology Department.

\*~2% of plan participants are in multiple TDFs and non-TDFs.

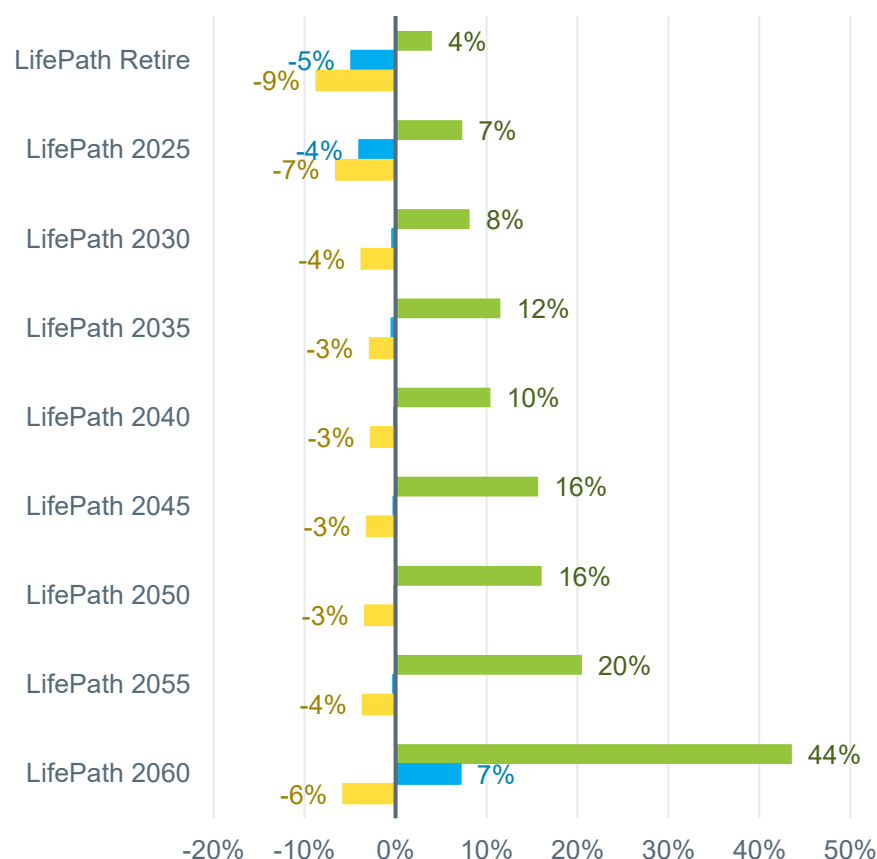
# Ohio DC TDF Flows

- Annual 2022 net flows represented \$78 million in positive flows made up of \$296 million contributions, \$160 million in distributions, and -\$60 million in net exchanges.

### Cash Flows in Dollars



### Cash Flows in Percentage of Market Value



**Key:** ■ Contributions ■ Net Exchanges ■ Distributions

Cash flows shown represent annual flows 1/1/2022-12/31/2022. Contributions consists of employee contributions and positive net rollovers. Distributions consists of distributions and negative rollovers.



# Strategy and Performance Summary

BlackRock LifePath



# Ohio DC Philosophy and Design Review Observations

## Based on RVK's Understanding of Ohio DC:

Based on previous reviews and our knowledge of Ohio DC participants, RVK believes that Ohio DC intends to provide participants with a low-cost, high quality, diversified target date fund strategy to accommodate a broad base of plan participants.

Ohio DC is designed to provide participants with the opportunity to save for retirement, accumulate assets, and translate account balances into income at retirement through systematic withdrawals, total or partial lump sum distributions, and/or external annuity options outside of the plan.

## Suitability of BlackRock LifePath Index Funds:

The BlackRock LifePath Index funds align well with what we believe Ohio DC intends to provide participants:

- The funds specifically address accumulation risk with a higher allocation to risk assets during a participant's early working years and market risk by protecting capital and mitigating volatility for a participant near and at retirement.
- The funds are an appropriate strategy to help support the accumulation and decumulation objectives for a broad participant demographic, including those with varying expected pension benefits, and those with differing expected retirement dates.
- The funds focus is on appropriate asset allocation, as implemented through low-cost passive investments.
- The funds offer additional diversification through the use of broad US and non-US equities, investment-grade fixed income, and inflation-sensitive asset classes.

# BlackRock LifePath Review Summary

Investment Strategy	RVK Rating	Comments
<b>Objective</b>	●	To provide stable spending throughout a lifetime by reducing downside risk and keeping participants invested in the market.
<b>Risks Addressed</b>	●	The strategy attempts to address three main risks: market risk, inflation risk, and accumulation risk.
<b>Firm</b>	●	BlackRock is a leader in the DC industry and one of the first managers to introduce a TDF strategy to the market in 1993. It is one of the top 5 providers of target date fund solutions.
<b>Team</b>	●	Each LifePath product has a dedicated portfolio management team accountable for implementation and/or performance decisions away from the glidepath and strategic asset allocation. For the LifePath Index strategy, portfolio management is led by Greg Savage, CFA, Managing Director. Mr. Savage heads portfolio management within the U.S. Index Asset Allocation (“IAA”) Team, which itself is a part of BlackRock’s ETF & Index Investments (“EII”) group. Mr. Savage and his team are responsible for the daily management of the LifePath Index / LifePath ESG Index strategy, directing trades, managing daily flows, and monthly/quarterly rebalancing activities. There have been no recent changes to the investment team.
<b>Philosophy and Process</b>	●	Strategy does not target an income or wealth replacement ratio; instead, it focuses on the ability to deliver stable spending throughout retirement. This approach is based off the human capital theory, which suggests that a participant’s ability to earn income is converted to financial capital over time, and financial assets should de-risk to reflect diminishing human capital.

● No action necessary    ● RVK recommends further review    ● RVK recommends action





# BlackRock LifePath Review Summary

Investment Strategy	RVK Rating	Comments
Asset Allocation	●	<p>The strategy uses forward-looking asset class assumptions with an emphasis on risk management designed to provide a smooth transition of investment risk over time.</p> <p>In 2022, BlackRock made changes to its fixed income exposure across the glide path, disaggregating its US bond allocation in order to focus on credit exposure earlier in life and shifting to rates (i.e., Government bonds) as retirement approaches. Implementation of these changes were completed at the end of May 2022.</p> <p><b>RVK finds these changes, which were reviewed with the Board in March 2022 (prior to implementation), to be reasonable and aligned with its investment objective and philosophy.</b></p>
Asset Allocation	●	<p>The strategy uses forward-looking asset class assumptions with an emphasis on risk management designed to provide a smooth transition of investment risk over time.</p>
Asset Classes	●	<p>The funds have broad asset class exposure with allocations to inflation sensitive investments. The funds are limited to liquid assets that can be passively managed.</p>
Fees	●	<p>The fees for Ohio at 0.06% are extremely competitive compared to peers within the TDF universe.</p>

● No action necessary    ● RVK recommends further review    ● RVK recommends action



# BlackRock LifePath Review Summary

Investment Strategy	RVK Rating	Comments
Flows	●	Over the last five years, BlackRock has consistently experienced positive net cash flows. In 2022, the series ranked fourth in receiving net inflows at an estimated \$20 billion. The majority of that inflow was in the CIT vehicle.
Performance Review	● ● ● ● ●	<ul style="list-style-type: none"> <li>• The funds have performed in-line with their objectives.</li> <li>• The funds have tracked their composite benchmarks within a reasonable range over time.</li> <li>• The funds early in the glidepath tend to be more aggressive than peers resulting in higher returns and higher volatility compared to peers as measured by the Sharpe ratio.</li> <li>• The funds close to retirement continue to exhibit downside protection, compared to peers.</li> <li>• The funds have performed in-line with peers over longer time periods.</li> </ul>

● No action necessary    ● RVK recommends further review    ● RVK recommends action



# BlackRock LifePath Litigation Update

- In early August 2022, lawsuits were filed against a number of large plan sponsors alleging fiduciary breaches due to the continued offering of BlackRock LifePath Target Date Funds (“TDFs”) on the investment lineup.
  - The lawsuits, which in some cases contained identical language, asserted that LifePath’s performance compared to a select group of competitor TDFs (some of which have active management and all of which have different glide paths) had lagged over a period of several years.
  - In December 2022 and February 2023, three lawsuits (against plans sponsored by Microsoft, Booz Hamilton and Capital One) were dismissed in two courts, but the plaintiffs were given the ability to amend and refile the complaints. In dismissing the lawsuits, the judges rejected the idea that the relative performance of comparator TDF series cited in the allegations (given different strategies, glidepaths, and investments) represented significant enough evidence for the cases to move forward.
  - As of April 2023, Microsoft’s lawsuit was dismissed for a second time “with prejudice” (preventing the plaintiffs from amending the lawsuit again).
  - RVK notes that, while the dismissals are encouraging for plan sponsors, additional cases remain pending in other jurisdictions, and the ultimate path of these lawsuits through the legal system remains uncertain.
- As with all fiduciary decisions, plan fiduciaries should follow a thorough and well-documented process to ensure that the investment options offered continue to be appropriate for their specific population. Plan sponsors should avoid reacting to allegations where the facts and circumstances may not be applicable to their particular plan.
- **RVK continues to maintain a positive research ranking for the BlackRock LifePath TDF strategy. We have no concerns with LifePath’s team, investment strategy, glide path, or performance. No action is recommended as a result of the recent litigation news.**
- As always, a sponsor/committee should continue to review all investment options, including the BlackRock LifePath TDFs, in the context of their participant populations and goals for the plan.

# Investment Performance & Risk Review

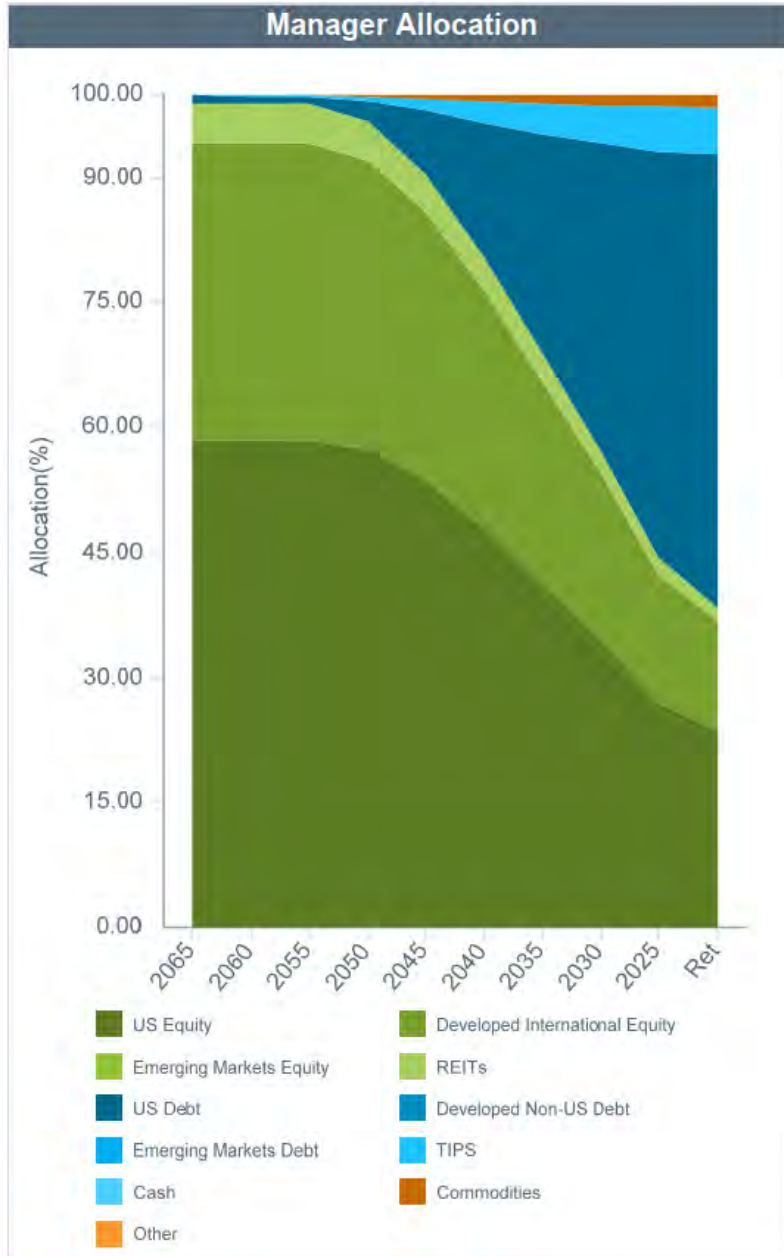
BlackRock LifePath



# Ohio DC Investment Lineup

	Tier I Target Date Funds (TDFs)	Tier II Passively Managed Options	Tier III Actively Managed Options
	Hassle-Free TDFs	Hands-On Investing (Core Menu)	
<b>US Equity</b>	<b>BlackRock LifePath</b>		
US Large Cap	✓	US Large Company Stock Index	US Large Value Company Stock Fidelity Growth Company Fidelity Contrafund US Large Growth Company Stock
US Mid Cap	✓		Vanguard Capital Opportunity
US Small Cap	✓	US Small/Mid Company Stock Index	US Small Value Company Stock US Small Growth Company Stock
<b>International Equity</b>			
Broad International Equity	✓	Non-US Company Stock Index	Non-US Company Stock
<b>Inflation Protection</b>			
Real Return/TIPS	✓		
<b>Fixed Income</b>			
Core Plus Fixed Income			US Bond
Core Fixed Income	✓	US Bond Index	
<b>Capital Preservation</b>			
Stable Value			Stable Value

# Asset Allocation



## Characteristics

**Glidepath:** To

**Equity Starting Point:** 99%

**Equity at Retirement:** 40%

**Equity Landing:** 40%

**Roll Down after Retirement (Yrs):** N/A

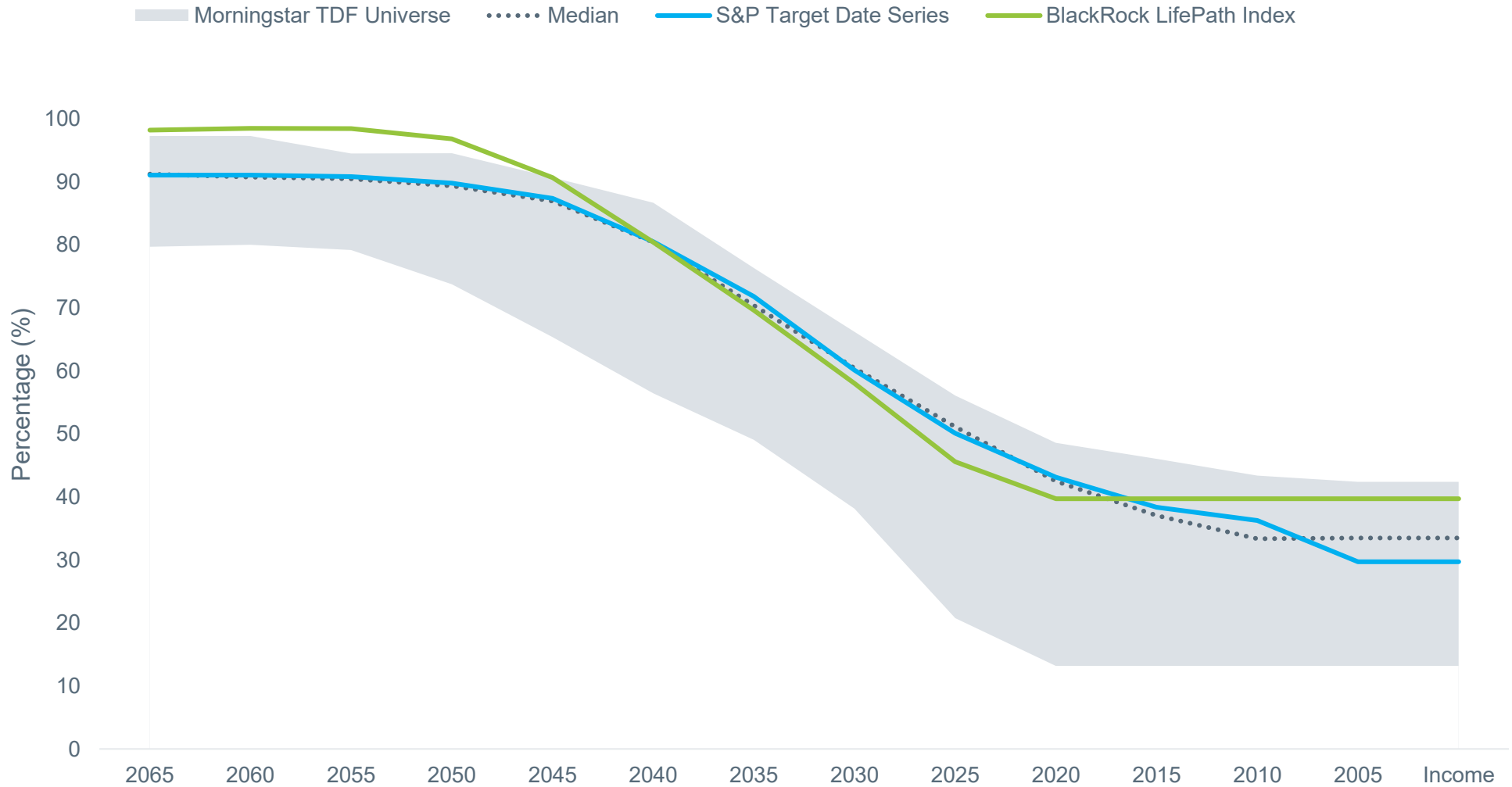
**Management Style:** 100% Passive

**Inflation Allocation:** REITs, Commodities, TIPS

**Architecture:** Closed

# Total Equity Allocation vs. Peers

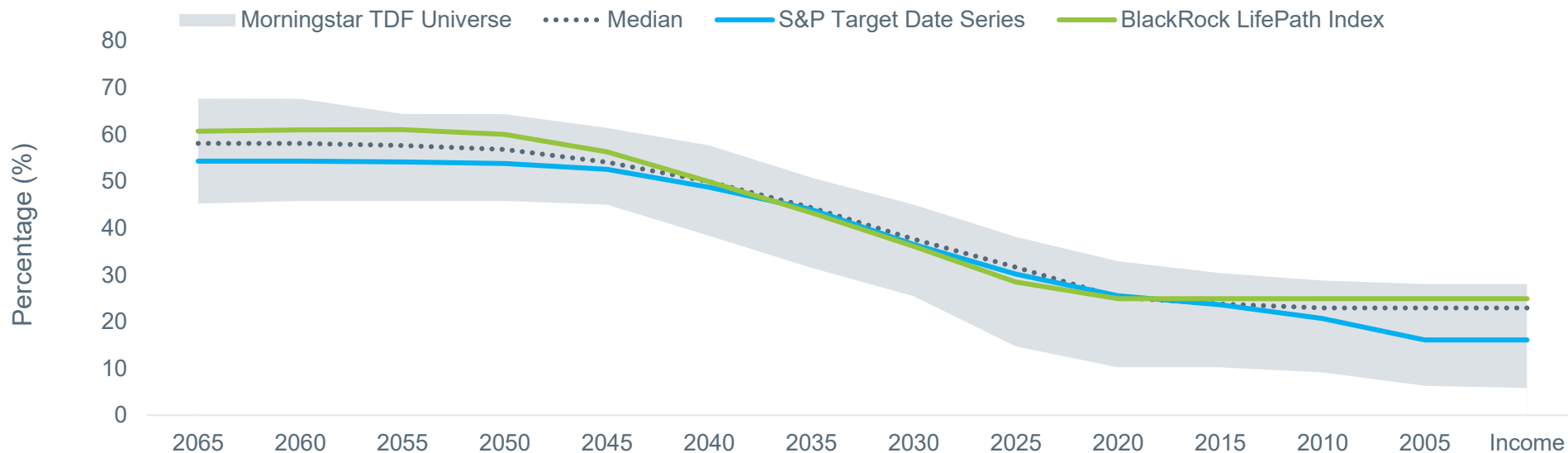
## BlackRock Total Equity Risk Assets Glide Path



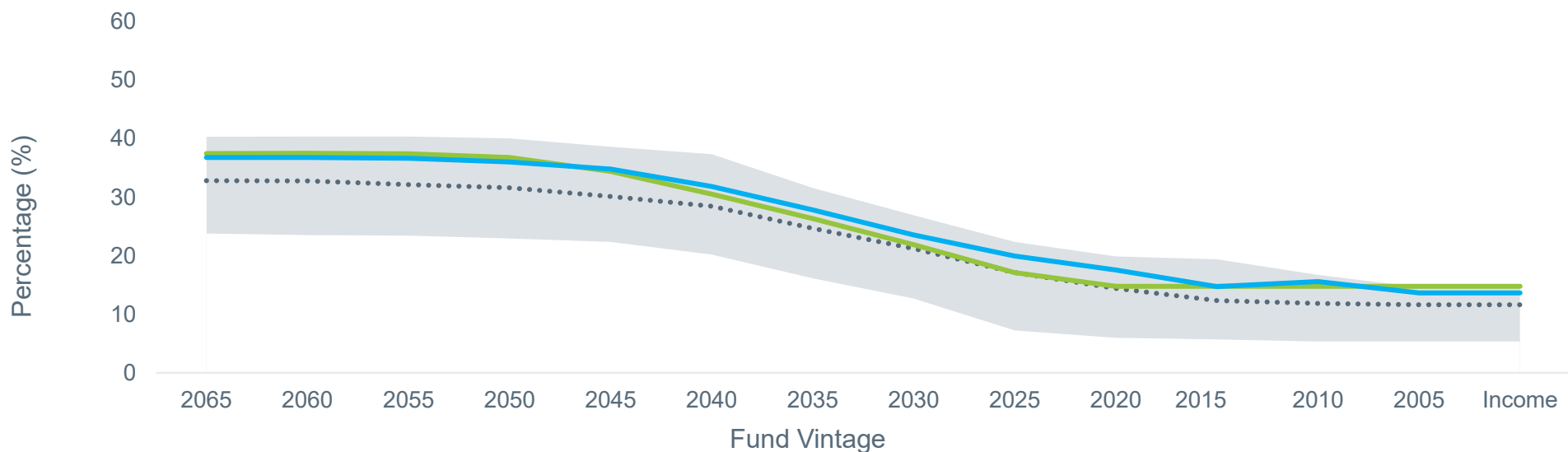
Data sourced from Morningstar for the Mutual Fund Target Date Fund universe, 12/31/2022. Total Equity Risk Assets allocations include allocations to commodities and REITS. The shaded gray area represents the universe's 5<sup>th</sup> and 95<sup>th</sup> percentile.

# US & International Equity Allocations vs. Peers

## US Equity Glide Path



## International Equity Glide Path



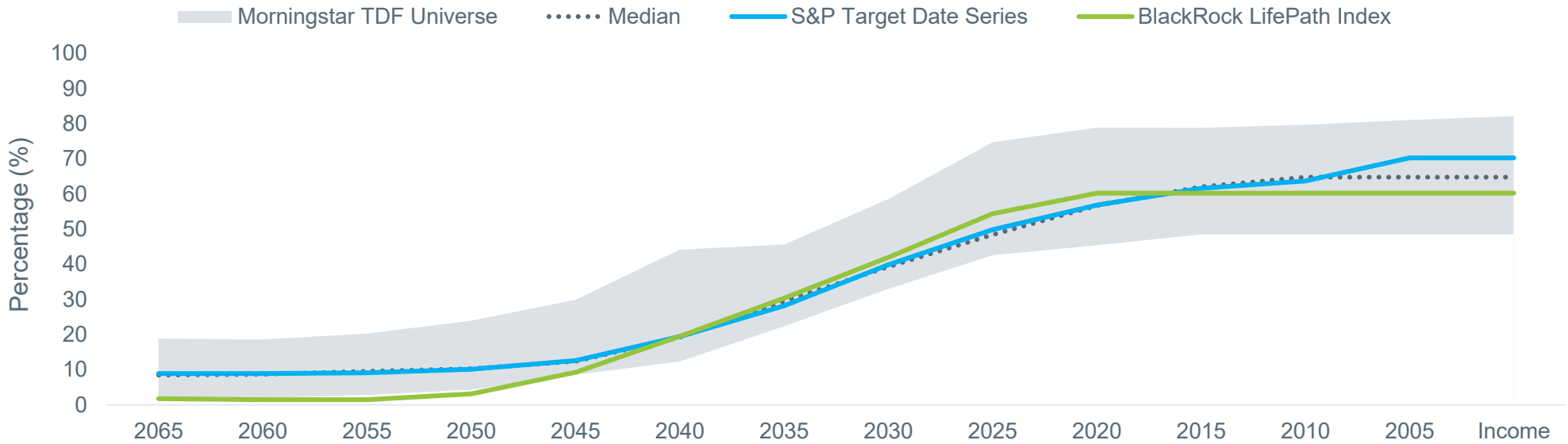
Data sourced from Morningstar for the Mutual Fund Target Date Fund universe, 12/31/2022. Allocations shown for US and Int'l equity include allocations to REITs, and do not include allocations to commodities. The shaded gray area represents the universe's 5<sup>th</sup> and 95<sup>th</sup> percentile.



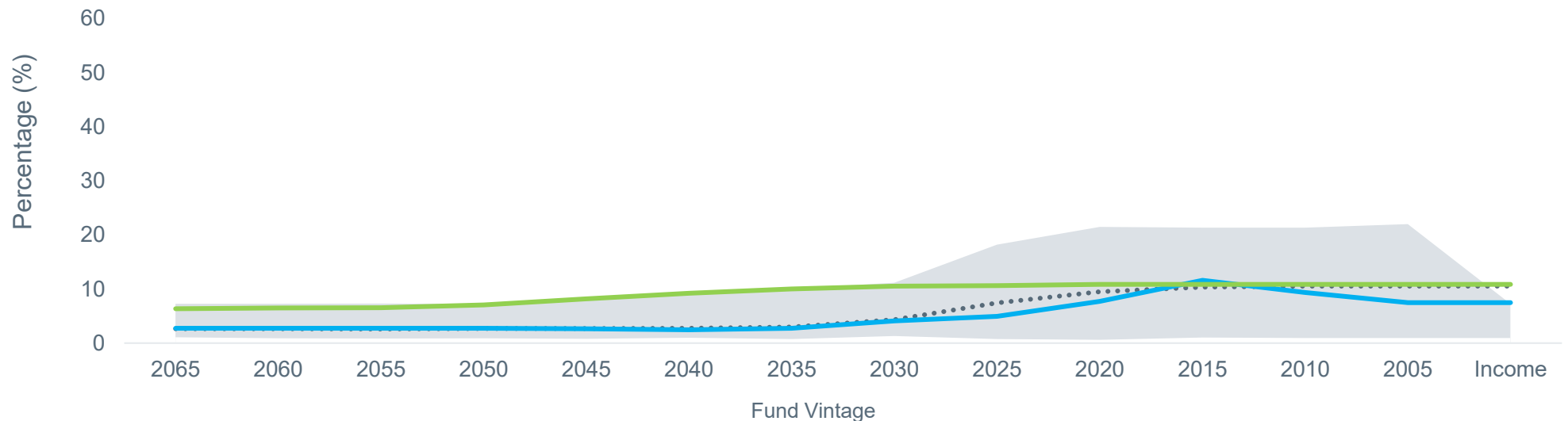


# Fixed Income & Other Allocations vs. Passive Peers

## Fixed Income & Cash Glide Path



## Real Assets (TIPS, REITS, Commodities, and Other) Glide Path



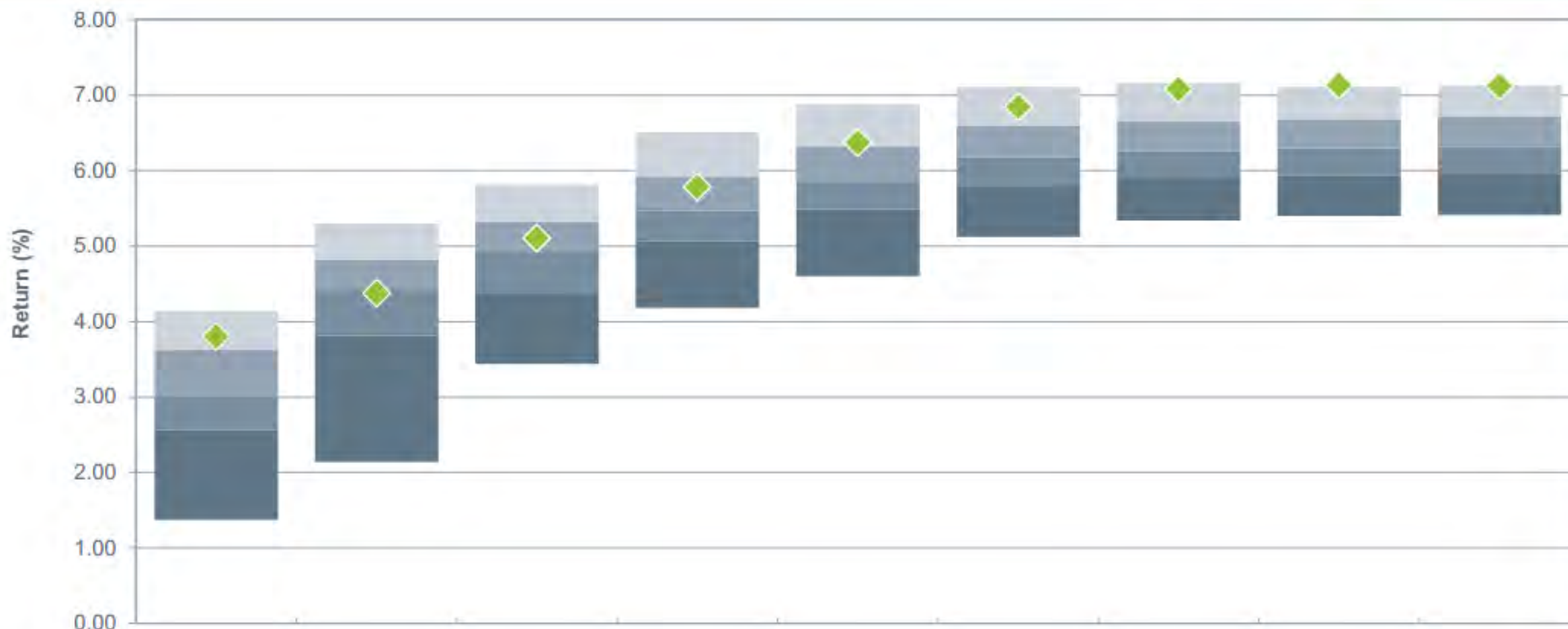
Data sourced from Morningstar for the Mutual Fund Target Date Fund universe, 12/31/2022. Allocations shown for Fixed Income does not include TIPS. The shaded gray area represents the universe's 5<sup>th</sup> and 95<sup>th</sup> percentile.

# Historical Performance Summary

	Risk Profile		Long-Term Performance					Down Market Experience			
	Equity Allocation	10-Year Standard Deviation	10 Year Annualized Returns	10 Year Sharpe Ratio	10 Year Sharpe Ratio Rank	7 Year Rolling Performance Rank	10 Year Rolling Performance Rank	Q1 2020 Performance Ranking	Q1 2020 Performance	2022 YTD Performance Ranking	2022 YTD Performance
Retirement	38%	6.9%	4.0%	0.50	43	11	16	63	-7.7%	79	-14.6
2025	46%	8.6%	5.3%	0.56	56	57	75	24	-11.3%	43	-15.2
2035	70%	11.3%	6.7%	0.56	61	46	68	44	-17.1%	40	-16.7
2045	91%	13.4%	7.7%	0.56	61	24	50	77	-21.3%	43	-17.9
2055	99%	14.0%	8.1%	0.57	57	16	42	84	-22.1%	50	-18.3

Data as of 12/31/2022. Average allocation to equity represents the average allocation to equity (including REITs and commodity) assets over the accumulation period. Peer group consists of the Morningstar TDF (MF). Rankings are from 1-100, with a 1 indicating the top ranking.

# Five-Year Performance vs. Peers (Longer-Term Experience)



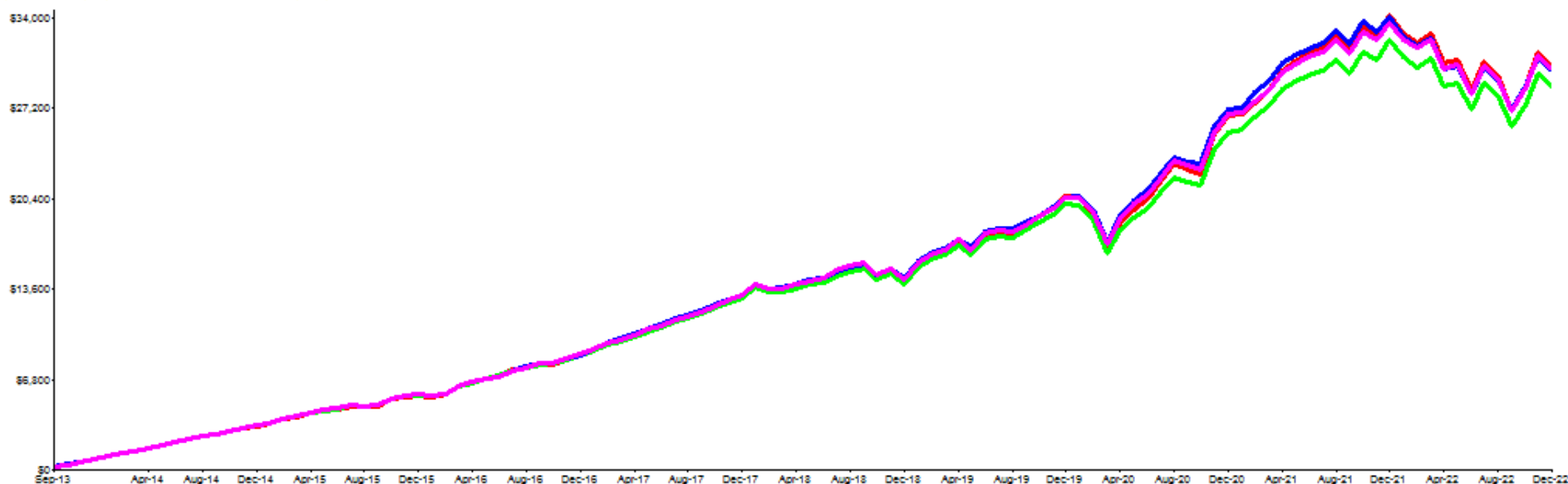
Fund	LifePath Retire	LifePath 2025	LifePath 2030	LifePath 2035	LifePath 2040	LifePath 2045	LifePath 2050	LifePath 2055	LifePath 2060
Peer Group	Mixed-Asset Target Today (MF)	Mixed-Asset Target 2025 (MF)	Mixed-Asset Target 2030 (MF)	Mixed-Asset Target 2035 (MF)	Mixed-Asset Target 2040 (MF)	Mixed-Asset Target 2045 (MF)	Mixed-Asset Target 2050 (MF)	Mixed-Asset Target 2055 (MF)	Mixed-Asset Target 2060 (MF)
◆ Fund Return	3.80	4.37	5.10	5.78	6.37	6.84	7.08	7.13	7.12
Median Return	3.01	4.41	4.93	5.47	5.86	6.17	6.25	6.29	6.32
Percentile Rank	16	52	41	32	23	16	8	5	6
Population	114	158	165	159	162	155	158	155	146





Performance shown is net of fees and as of 3/31/2023.

# BlackRock Lifepath Index Fund Annual Review

## Select Positively Rated Strategies

**Ending Value**  
Monthly Contribution of \$200 – Common Period (Sep 2013 – Dec 2022)



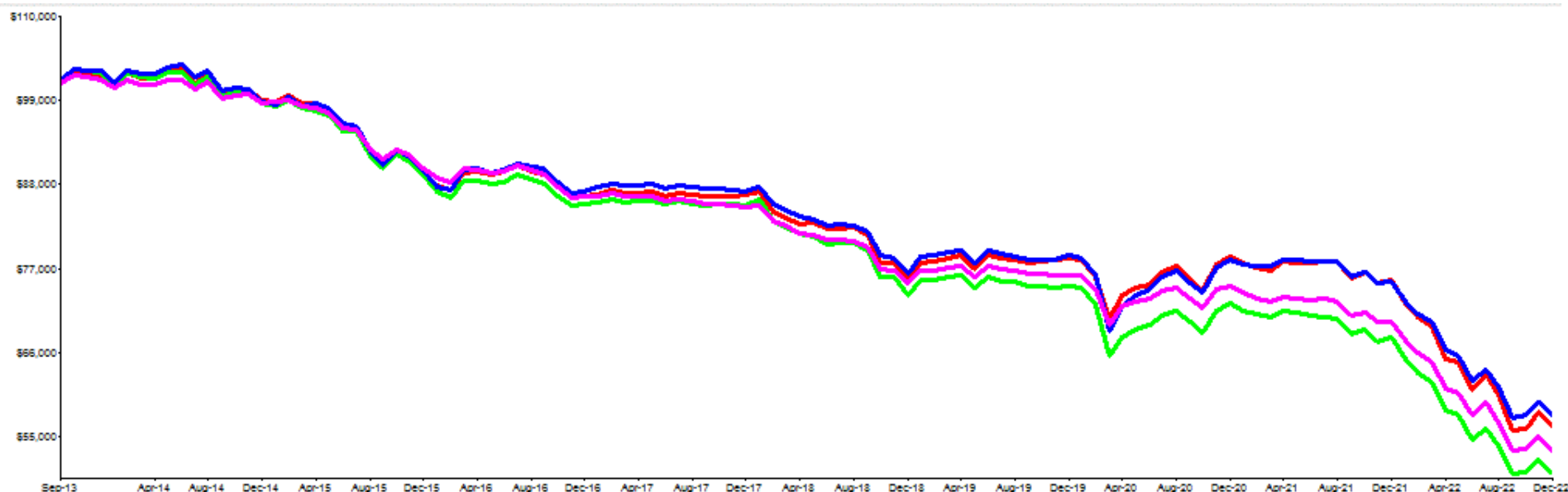
	BlackRock LifePath 2050 	JPMIM: JSBF 2050 	T. Rowe Price Target 2050 	Vanguard Target Retirement 2050 
Initial Investment (Sep-13)	\$0	\$0	\$0	\$0
Ending Value (Dec-22)	\$30,251	\$28,827	\$29,994	\$30,108
Total Annualized Return	7.59%	6.99%	7.90%	7.79%
Total Cumulative Return	97.94%	87.83%	103.35%	101.42%
Best Monthly Return	12.43% (Nov-20)	11.70% (Nov-20)	10.85% (Nov-20)	11.26% (Nov-20)
Worst Monthly Return	-14.52% (Mar-20)	-14.35% (Mar-20)	-13.58% (Mar-20)	-13.26% (Mar-20)
Max Drawdown Return	-25.53%	-24.93%	-25.30%	-24.43%
Max Drawdown Period	Jan-22 - Sep-22 (9)	Jan-22 - Sep-22 (9)	Jan-22 - Sep-22 (9)	Jan-22 - Sep-22 (9)
Recovery Period	Oct-22 - Nov-22 (2)	Oct-22 - Nov-22 (2)	Oct-22 - Nov-22 (2)	Oct-22 - Nov-22 (2)

Performance is product specific and net of fees.

# BlackRock Lifepath Index Fund Annual Review

## Select Positively Rated Strategies

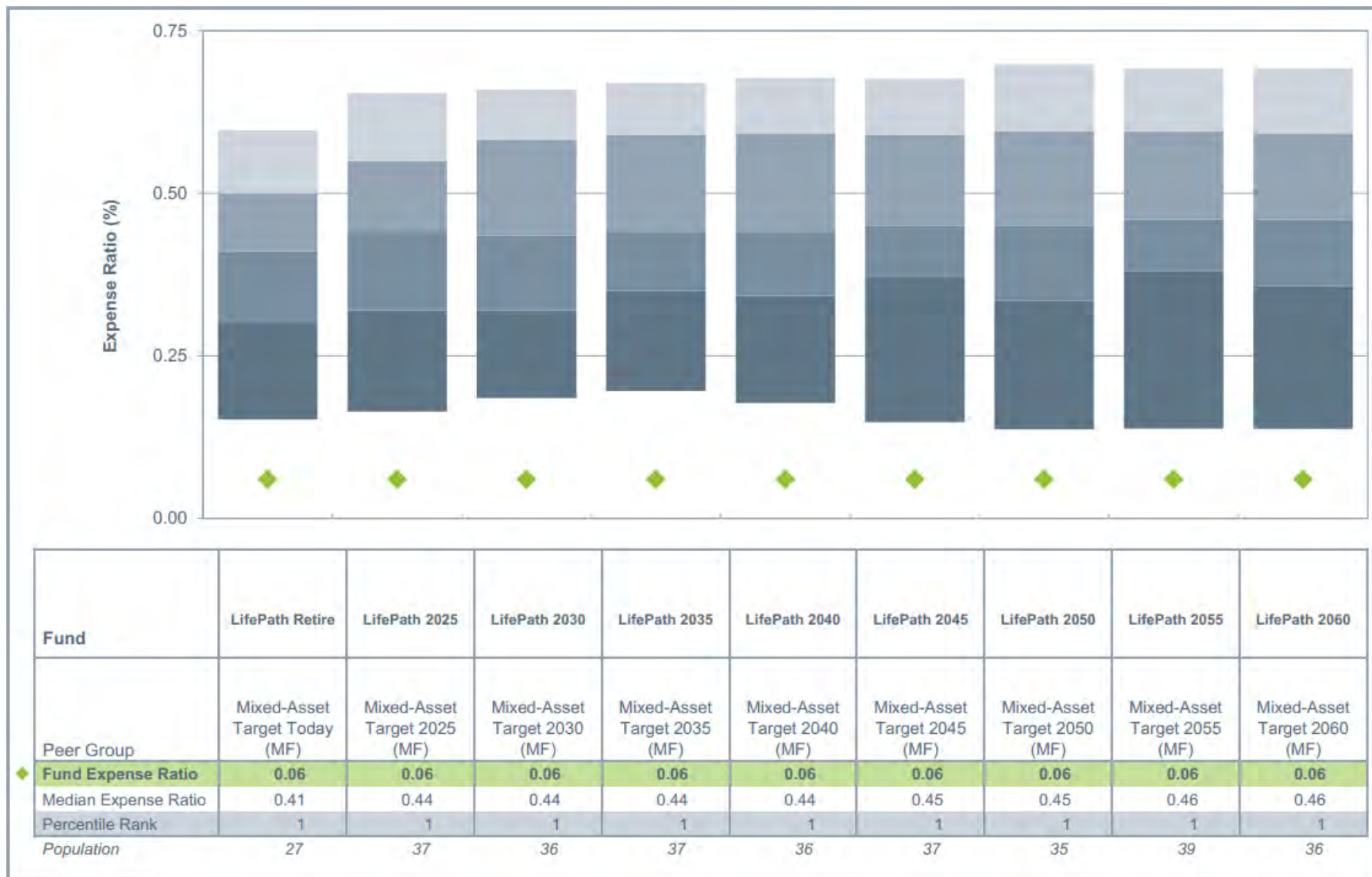
Ending Value  
Monthly Distribution of \$700 – Common Period (Sep 2013 – Dec 2022)



	BlackRock LifePath Income ■	JPMIM: JSBF Income Fund ■	T. Rowe Price Target 2005 ■	Vanguard Target Retirement Income ■
Initial Investment (Sep-13)	\$100,000	\$100,000	\$100,000	\$100,000
Ending Value (Dec-22)	\$56,292	\$50,210	\$57,772	\$53,028
Total Annualized Return	4.12%	3.40%	4.36%	3.73%
Total Cumulative Return	45.80%	36.62%	48.95%	40.79%
Best Monthly Return	5.61% (Nov-20)	5.36% (Nov-20)	5.75% (Apr-20)	4.35% (Nov-22)
Worst Monthly Return	-6.58% (Sep-22)	-8.26% (Mar-20)	-8.46% (Mar-20)	-5.31% (Sep-22)
Max Drawdown Return	-18.45%	-17.80%	-15.90%	-15.89%
Max Drawdown Period	Jan-22 - Sep-22 (9)	Jan-22 - Sep-22 (9)	Jan-22 - Sep-22 (9)	Jan-22 - Sep-22 (9)
Recovery Period	Oct-22 - Nov-22 (2)	Oct-22 - Nov-22 (2)	Oct-22 - Nov-22 (2)	Oct-22 - Nov-22 (2)

Performance is product specific and net of fees.

# BlackRock LifePath Fees vs. Peers

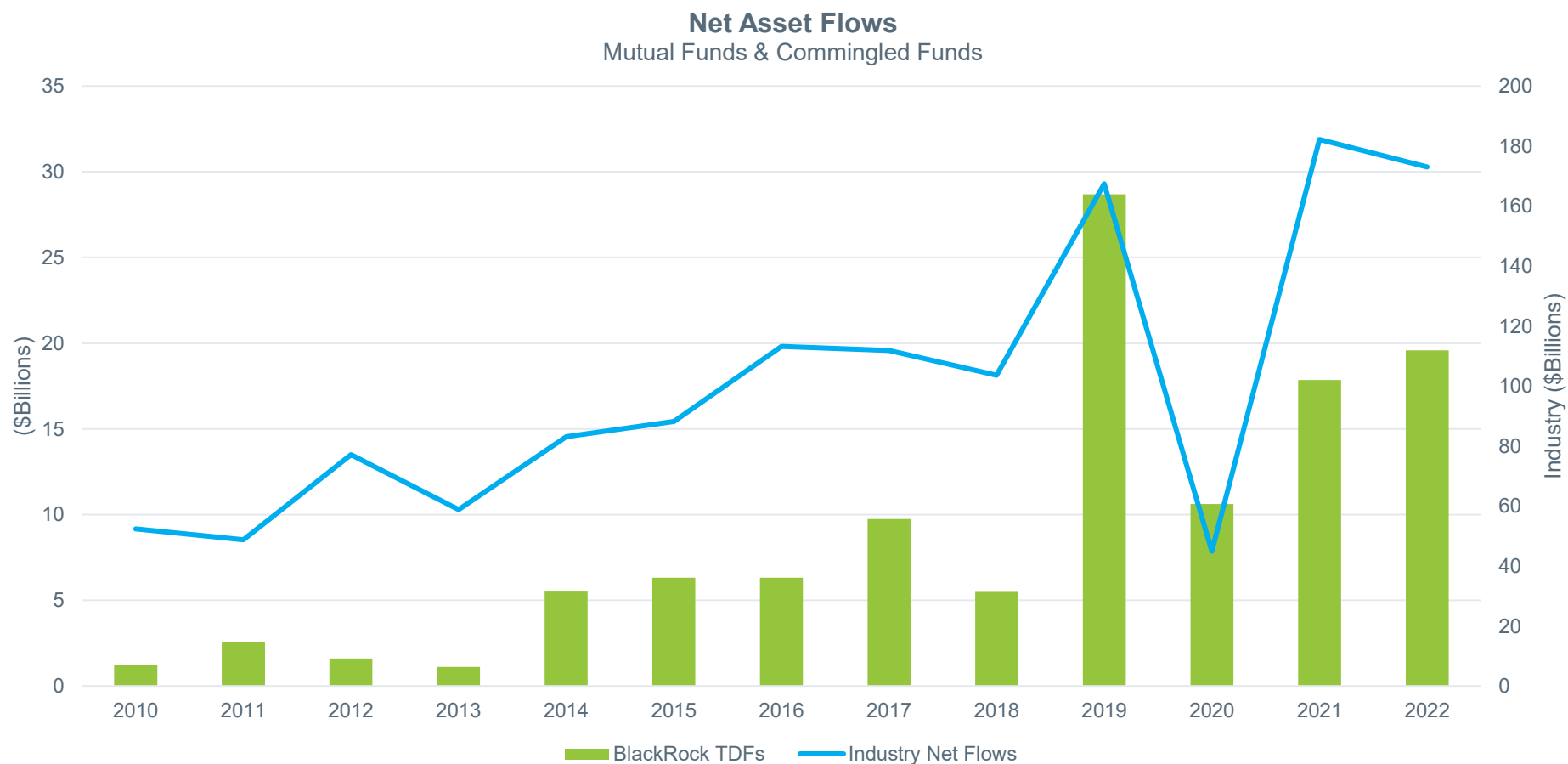


Fee peer group shown is as of 3/31/2023.

# BlackRock TDF Fund Annual Review

## AUM/Flows

- BlackRock TDF AUM across mutual funds and collective investment trusts were \$249 billion as of 12/31/2022.
- Net annual flows in BlackRock TDFs through 12/31/2022 were roughly \$20 billion across the strategies' mutual funds and CITs. Industry net flows declined sharply in 2020 but recovered in 2021 and 2022.



Asset flow data is sourced from Morningstar and is representative of mutual fund and commingled fund estimated flows as of 12/31/2022.

# Appendix

## BlackRock LifePath Historical Performance





# Target Date Fund Performance Review

## Summary

- The following slides are intended to compare performance of the BlackRock Lifepath Index fund suite to other target date fund providers which are positively viewed by RVK.
- The table below details key characteristics for the peer TDFs which BlackRock is being compared against.
  - RVK notes that these comparisons use the mutual fund version of each TDF suite in order to provide the most applicable comparison against peers. Ohio DC participants are currently provided access to a collective investment trust version of the BlackRock funds, which has the same glidepath but is offered at a more advantageous fee than the mutual fund version.

Firm Name	Strategy Name	Vehicle Type	Total Fee (basis points)	% Passive Allocation	Equity Allocation 2050 Fund	Equity Allocation 2030 Fund	Equity Allocation Landing	Post-Retirement Rolldown Period (Years)
<b>BlackRock</b>	LifePath Index	Mutual Fund	9 bps	100%	97%	59%	40%	0
<b>Vanguard</b>	Target Retirement	Mutual Fund	8 bps	100%	90%	68%	30%	7
<b>JP Morgan</b>	Smart Retirement Blend	Mutual Fund	19 bps	35% to 83%	94%	63%	40%	0
<b>T. Rowe Price</b>	Retirement	Mutual Fund	34 – 46 bps	9% to 15%	98%	77%	30%	30

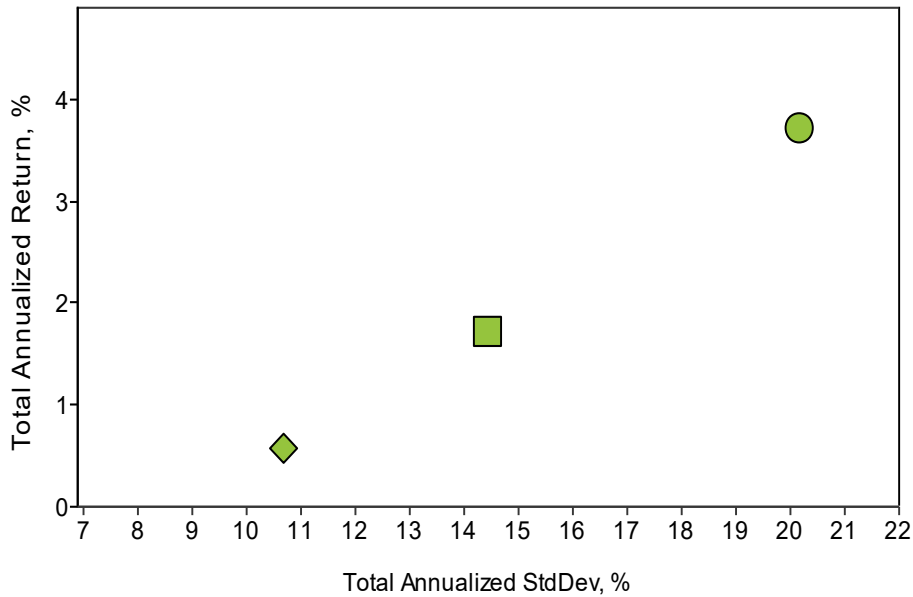
Data is as of 12/31/2022. Equity Allocation includes Commodities.

# Target Date Fund Performance Review

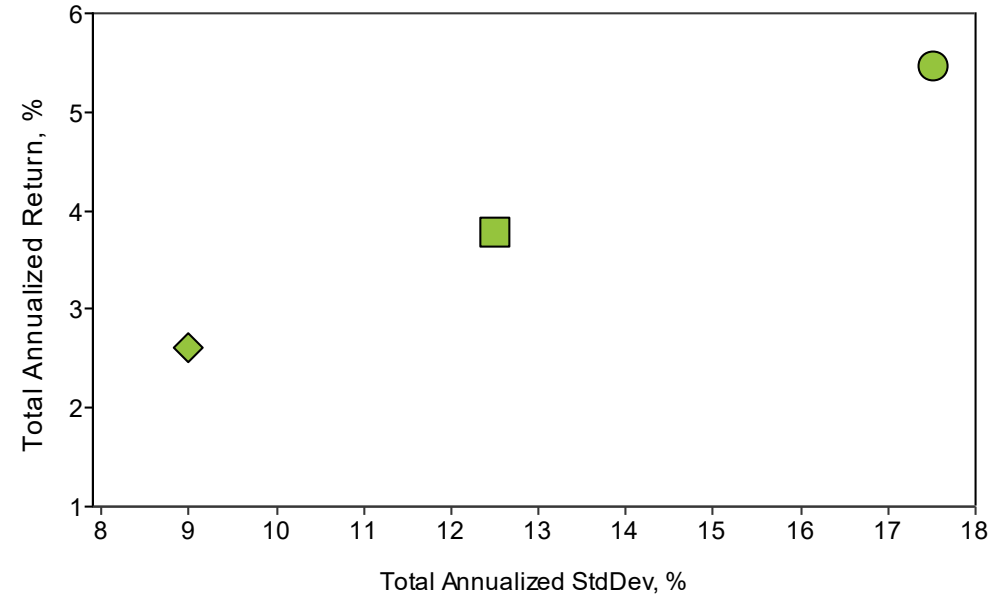
## Risk/Return Comparison of Selected Vintages

As of December 2022

### Three Year Risk/Return



### Five Year Risk/Return



● BlackRock LifePath 2050    ■ BlackRock LifePath 2030    ◆ BlackRock LifePath Retirement

	Annualized Return	Annualized Std. Dev.
BlackRock LifePath 2050	3.72	20.18
BlackRock LifePath 2030	1.73	14.42
BlackRock LifePath Retirement	0.58	10.68

	Annualized Return	Annualized Std. Dev.
BlackRock LifePath 2050	5.45	17.52
BlackRock LifePath 2030	3.78	12.51
BlackRock LifePath Retirement	2.62	9.00

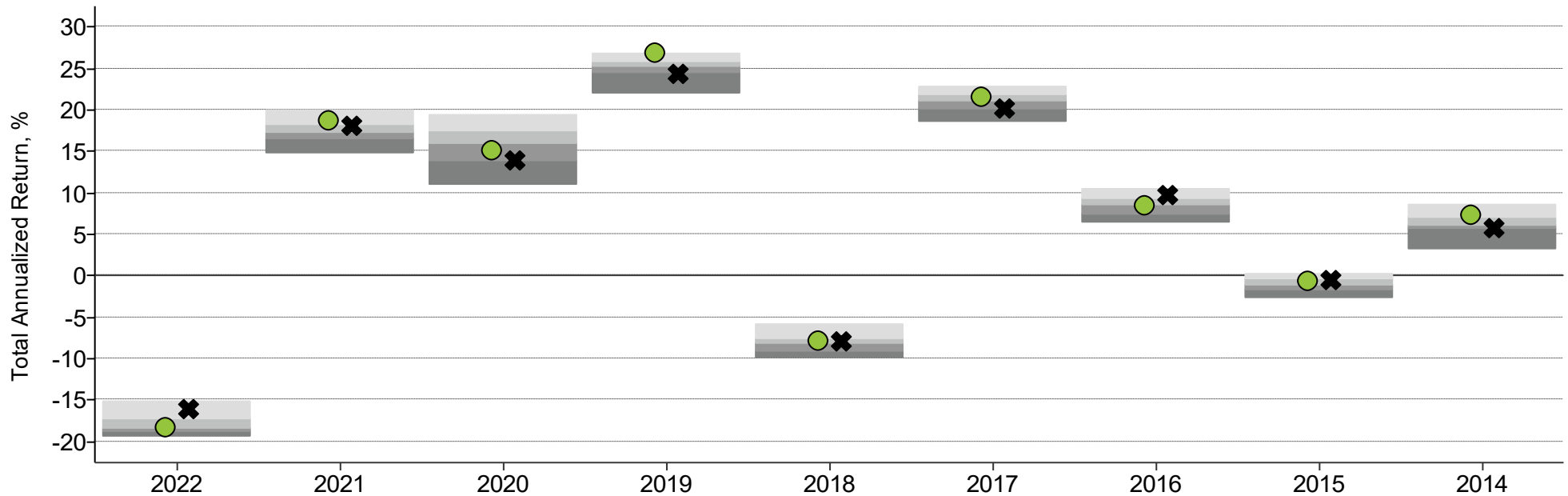
Performance is net of fees.

# Target Date Fund Performance Review

## Performance Comparison

### Calendar Year Returns – Target 2050

As of December 2022      Benchmark: S&P Target Date 2050      Universe: Mstar TRD 2050



● BlackRock LifePath 2050      ✕ S&P Target Date 2050

Calendar Year Performance	2022		2021		2020		2019		2018		2017		2016		2015		2014	
	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank
BlackRock LifePath 2050	-18.3	55	18.7	14	15.0	65	26.8	6	-7.8	36	21.4	38	8.4	58	-0.7	35	7.3	13
S&P Target Date 2050	-16.0	13	18.0	30	13.9	76	24.4	76	-7.9	46	20.2	76	9.7	17	-0.5	28	5.7	75
MStar TRD 2050 Median	-18.3	50	17.4	50	15.9	50	25.2	50	-8.1	50	21.1	50	8.6	50	-1.1	50	6.2	50

Performance is net of fees.

# Target Date Fund Performance Review

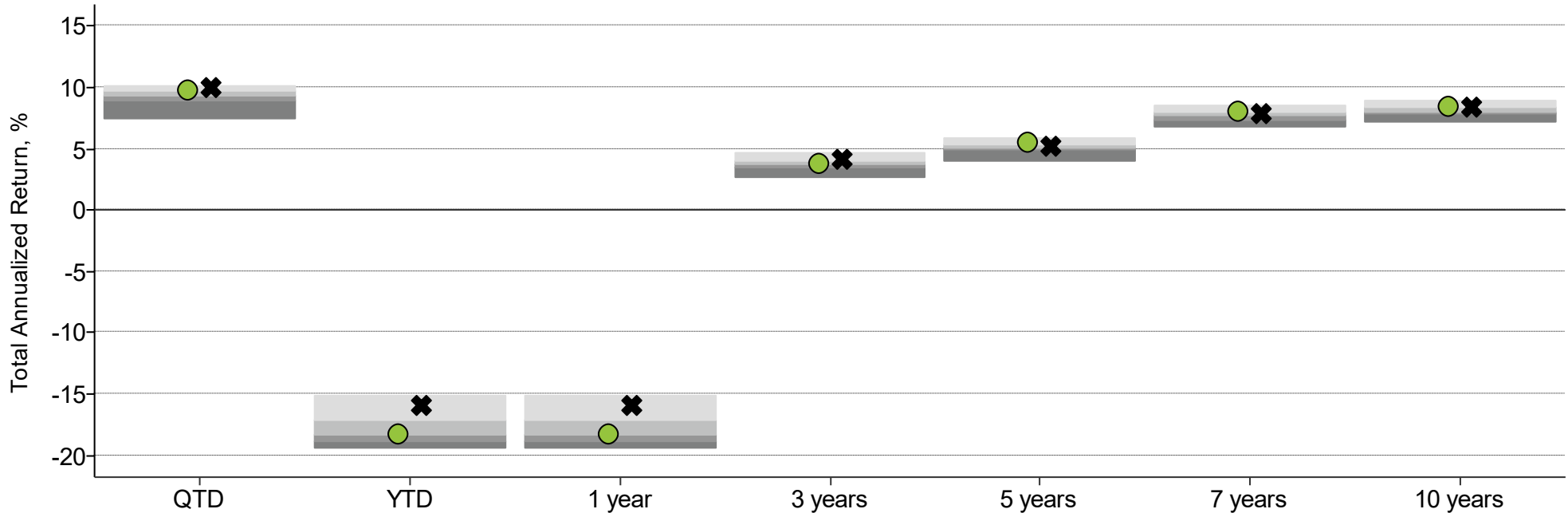
## Performance Comparison (continued)

### Trailing Period Returns – Target 2050

As of December 2022

Benchmark: S&P Target Date 2050

Universe: Mstar TRD 2050



● BlackRock LifePath 2050

✘ S&P Target Date 2050

Annualized Performance	QTD		YTD		1 year		3 years		5 years		7 years		10 years	
	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank
BlackRock LifePath 2050	9.7	28	-18.3	55	-18.3	55	3.7	46	5.4	21	8.0	29	8.3	30
S&P Target Date 2050	10.0	15	-16.0	13	-16.0	13	4.1	20	5.3	32	7.9	34	8.3	29
MStar TRD 2050 Median	9.3	50	-18.3	50	-18.3	50	3.7	50	5.1	50	7.7	50	8.0	50

Performance is net of fees.

# Target Date Fund Performance Review

## Performance Comparison (continued)

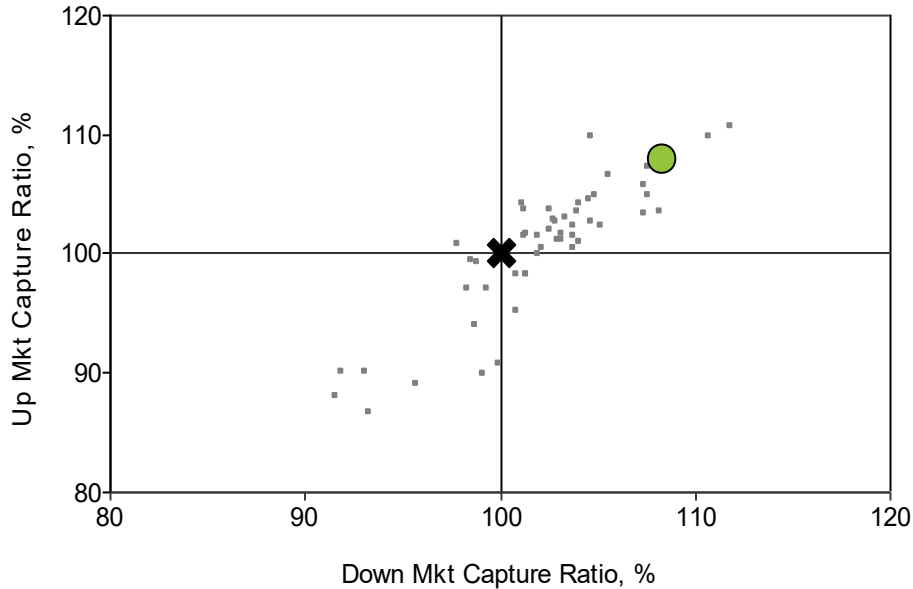
### Three- and Five-Year Up/Down Market Capture – Target 2050

As of December 2022

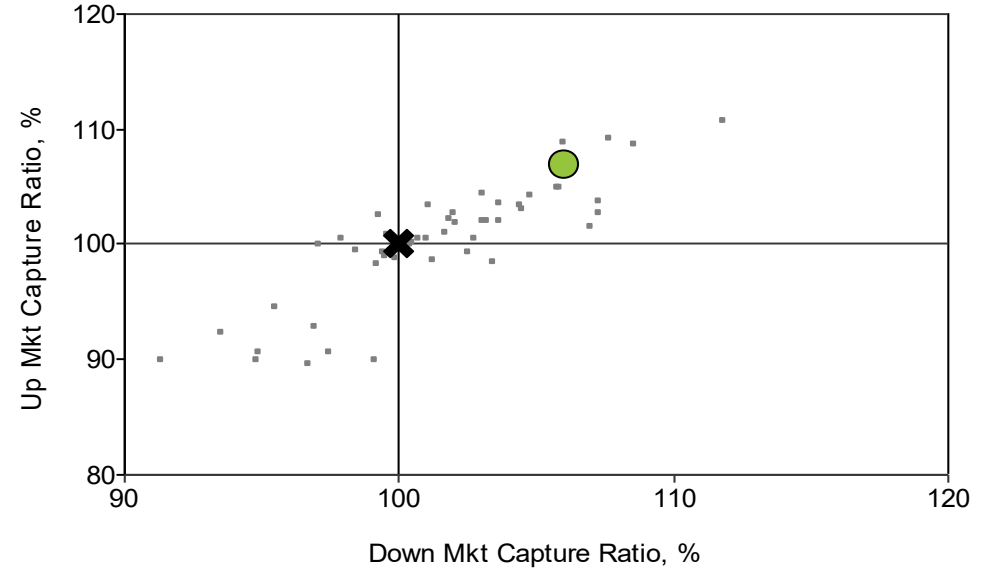
Benchmark: S&P Target Date 2050

Universe: Mstar TRD 2050

Three Year Up/Down Market Capture Ratio



Five Year Up/Down Market Capture Ratio



■ MStar TRD 2050    ● BlackRock LifePath 2050    ✕ S&P Target Date 2050

	Up Mkt Cap Ratio, %	Up Mkt Months	Down Mkt Cap Ratio, %	Down Mkt Months
BlackRock LifePath 2050	107.84	21	108.29	15
S&P Target Date 2050	100.00	21	100.00	15
MStar TRD 2050 Median	101.66	21	102.44	15

	Up Mkt Cap Ratio, %	Up Mkt Months	Down Mkt Cap Ratio, %	Down Mkt Months
BlackRock LifePath 2050	106.91	38	106.04	22
S&P Target Date 2050	100.00	38	100.00	22
MStar TRD 2050 Median	100.61	38	100.96	22

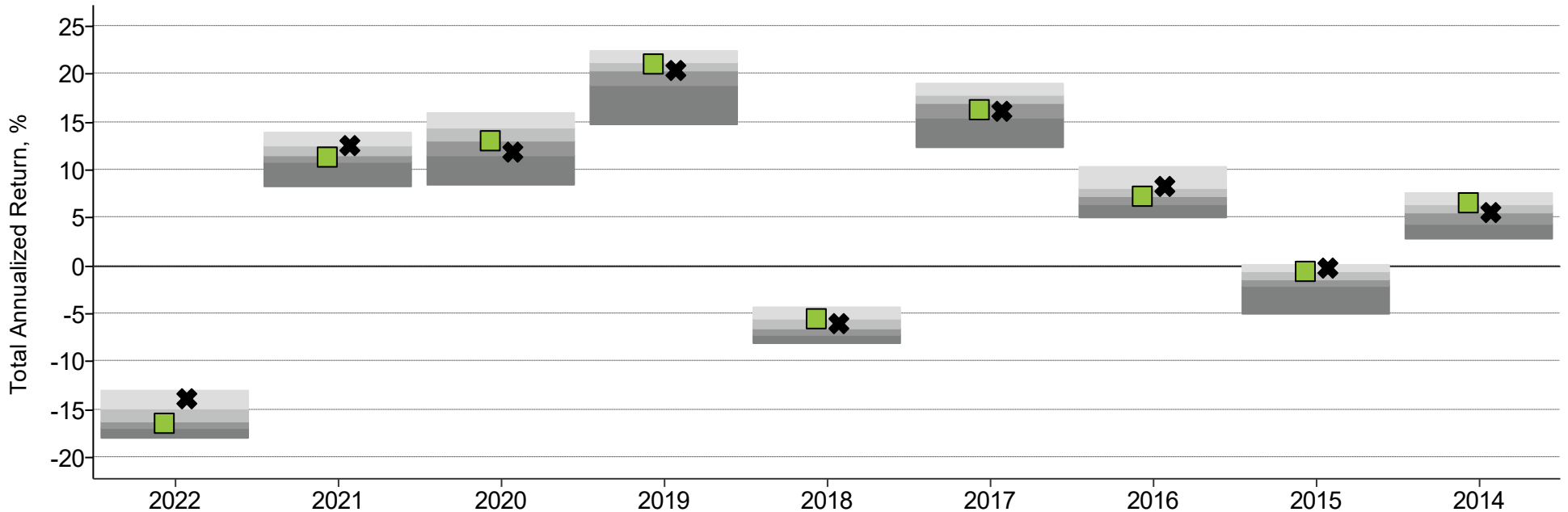
Performance is net of fees.

# Target Date Fund Performance Review

## Performance Comparison (continued)

### Calendar Year Returns – Target 2030

As of December 2022    Benchmark: S&P Target Date 2030    Universe: Mstar TRD 2030



■ BlackRock LifePath 2030    ✕ S&P Target Date 2030

Calendar Year Performance	2022		2021		2020		2019		2018		2017		2016		2015		2014	
	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank
BlackRock LifePath 2030	-16.4	52	11.4	54	13.0	52	21.1	32	-5.6	27	16.4	63	7.3	53	-0.5	22	6.6	20
S&P Target Date 2030	-14.0	11	12.6	26	11.9	67	20.4	50	-6.0	37	16.2	65	8.3	18	-0.3	16	5.6	44
MStar TRD 2030 Median	-16.3	50	11.5	50	13.1	50	20.3	50	-6.5	50	17.0	50	7.3	50	-1.4	50	5.5	50

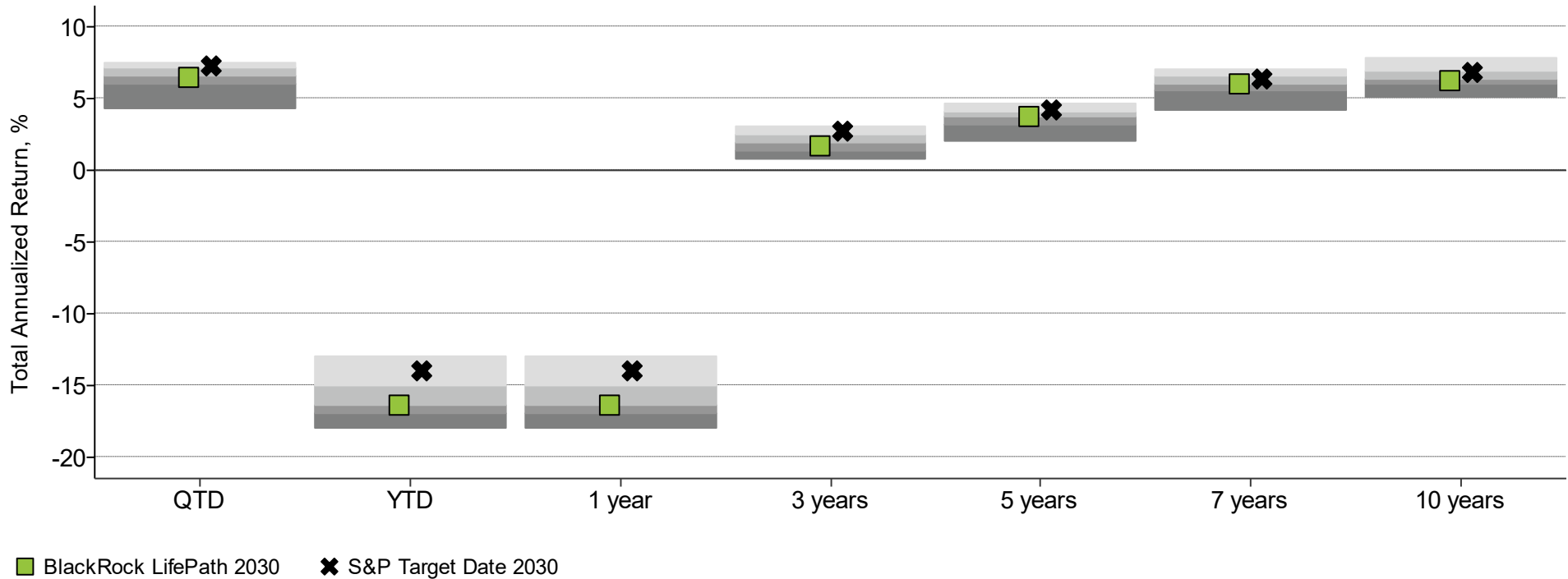
Performance is net of fees.

# Target Date Fund Performance Review

## Performance Comparison (continued)

### Trailing Period Returns – Target 2030

As of December 2022      Benchmark: S&P Target Date 2030      Universe: Mstar TRD 2030



Annualized Performance	QTD		YTD		1 year		3 years		5 years		7 years		10 years	
	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank
BlackRock LifePath 2030	6.5	57	-16.4	52	-16.4	52	1.7	64	3.8	48	6.0	52	6.3	59
S&P Target Date 2030	7.3	19	-14.0	11	-14.0	11	2.7	16	4.2	22	6.4	33	6.8	33
MStar TRD 2030 Median	6.6	50	-16.3	50	-16.3	50	2.0	50	3.7	50	6.1	50	6.4	50

Performance is net of fees.

# Target Date Fund Performance Review

## Performance Comparison (continued)

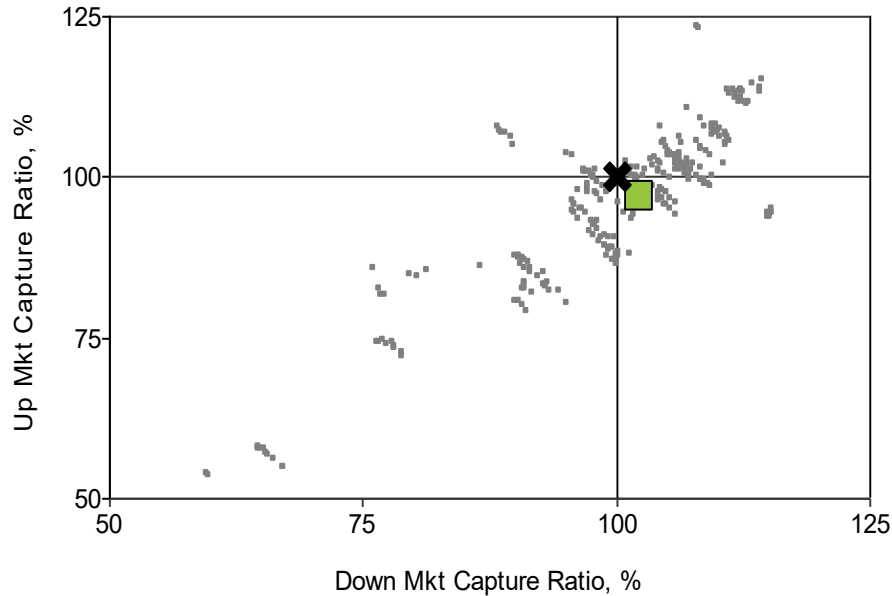
### Three- and Five-Year Up/Down Market Capture – Target 2030

As of December 2022

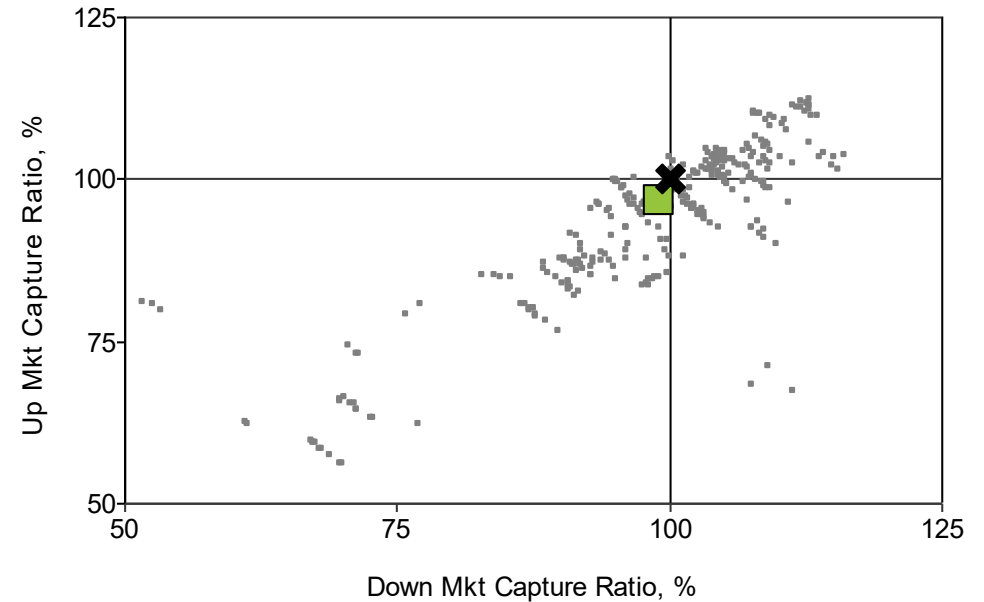
Benchmark: S&P Target Date 2050

Universe: Mstar TRD 2050

Three Year Up/Down Market Capture Ratio



Five Year Up/Down Market Capture Ratio



■ MStar TRD 2030    ■ BlackRock LifePath 2030    ✕ S&P Target Date 2030

	Up Mkt Cap Ratio, %	Up Mkt Months	Down Mkt Cap Ratio, %	Down Mkt Months
BlackRock LifePath 2030	97.16	21	102.13	15
S&P Target Date 2030	100.00	21	100.00	15
MStar TRD 2030 Median	98.73	21	101.83	15

	Up Mkt Cap Ratio, %	Up Mkt Months	Down Mkt Cap Ratio, %	Down Mkt Months
BlackRock LifePath 2030	96.86	37	98.95	23
S&P Target Date 2030	100.00	37	100.00	23
MStar TRD 2030 Median	96.58	32	100.46	20

Performance is net of fees.

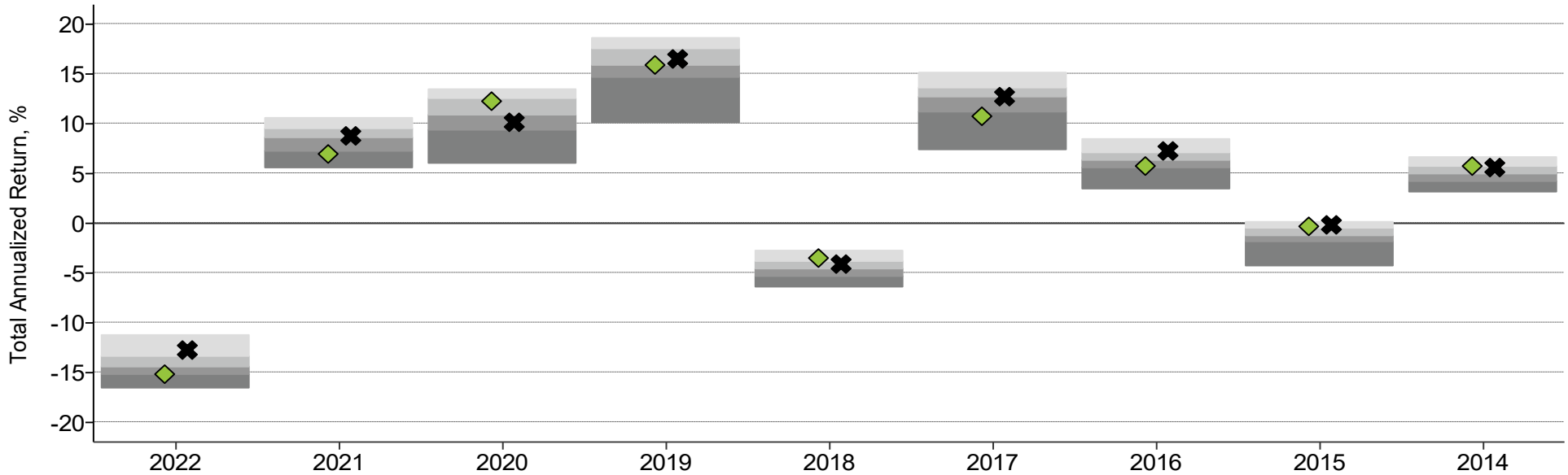


# Target Date Fund Performance Review

## Performance Comparison (continued)

### Calendar Year Returns – Target 2020

As of December 2022      Benchmark: S&P Target Date 2020      Universe: Mstar TRD 2020



◆ BlackRock LifePath Retirement      ✕ S&P Target Date 2020

Calendar Year Performance	2022		2021		2020		2019		2018		2017		2016		2015		2014	
	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank
BlackRock LifePath Retirement	-15.2	77	6.9	80	12.2	33	15.9	51	-3.5	16	10.8	80	5.8	68	-0.3	19	5.8	28
S&P Target Date 2020	-12.8	19	8.8	46	10.2	59	16.5	40	-4.2	38	12.8	49	7.2	21	-0.2	14	5.7	31
MStar TRD 2020 Median	-14.5	50	8.6	50	11.0	50	16.0	50	-4.5	50	12.7	50	6.4	50	-1.2	50	5.1	50

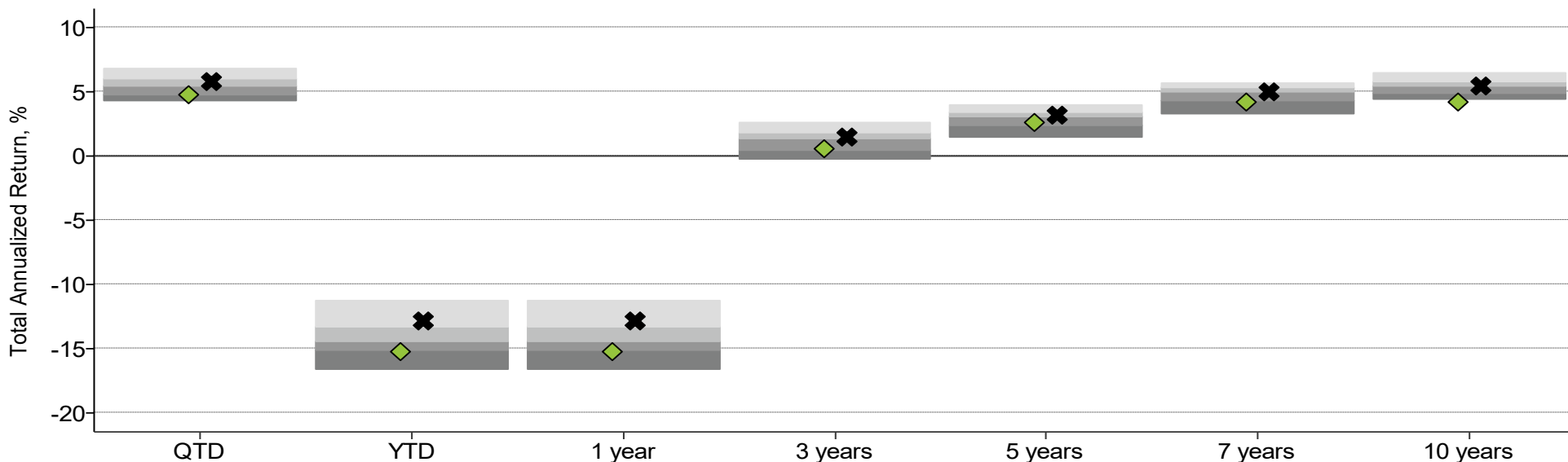
Performance is net of fees.

# Target Date Fund Performance Review

## Performance Comparison (continued)

### Trailing Period Returns – Target 2020

As of December 2022    Benchmark: S&P Target Date 2020    Universe: Mstar TRD 2020



◆ BlackRock LifePath Retirement    ✕ S&P Target Date 2020

Annualized Performance	QTD		YTD		1 year		3 years		5 years		7 years		10 years	
	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank
BlackRock LifePath Retirement	4.8	80	-15.2	77	-15.2	77	0.6	73	2.6	67	4.2	81	4.2	98
S&P Target Date 2020	5.8	38	-12.8	19	-12.8	19	1.5	43	3.1	42	5.1	51	5.5	49
MStar TRD 2020 Median	5.5	50	-14.5	50	-14.5	50	1.3	50	3.1	50	5.1	50	5.5	50

Performance is net of fees.

# Target Date Fund Performance Review

## Performance Comparison (continued)

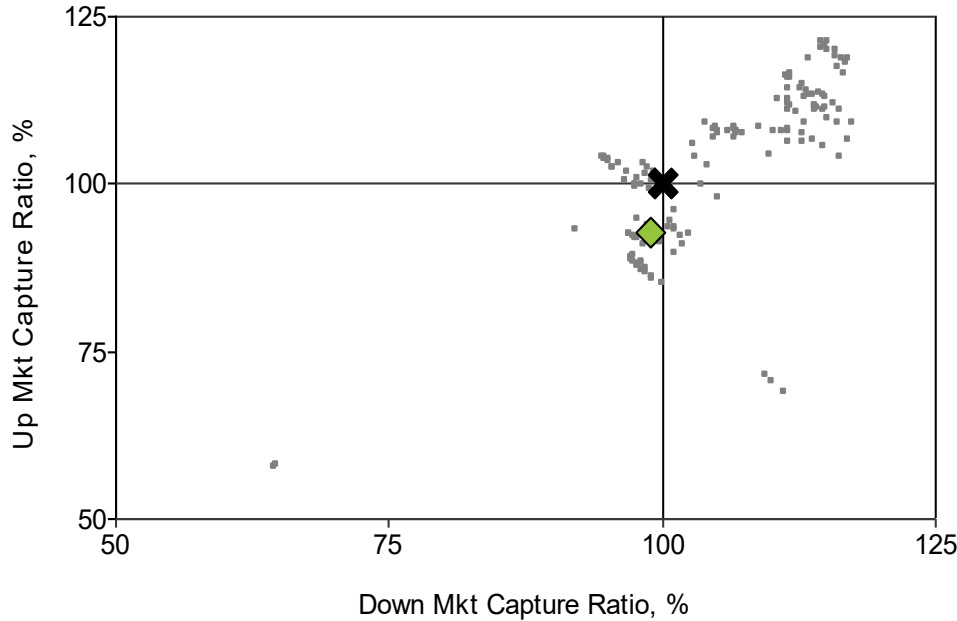
### Three- and Five-Year Up/Down Market Capture – Target 2020

As of December 2022

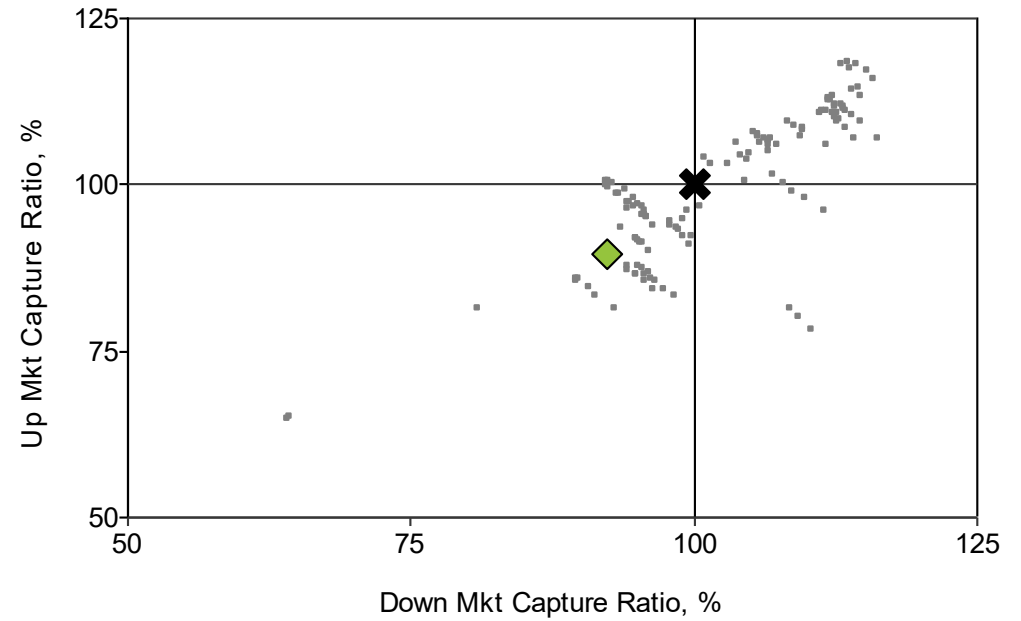
Benchmark: S&P Target Date 2020

Universe: Mstar TRD 2020

#### Three Year Up/Down Market Capture Ratio



#### Five Year Up/Down Market Capture Ratio



■ MStar TRD 2020    ◆ BlackRock LifePath Retirement    ✕ S&P Target Date 2020

	Up Mkt Cap Ratio, %	Up Mkt Months	Down Mkt Cap Ratio, %	Down Mkt Months
BlackRock LifePath Retirement	92.84	21	98.98	15
S&P Target Date 2020	100.00	21	100.00	15
MStar TRD 2020 Median	105.88	21	104.97	15

	Up Mkt Cap Ratio, %	Up Mkt Months	Down Mkt Cap Ratio, %	Down Mkt Months
BlackRock LifePath Retirement	89.50	37	92.38	23
S&P Target Date 2020	100.00	37	100.00	23
MStar TRD 2020 Median	100.00	37	102.14	23

Performance is net of fees.

# Appendix

## Historical TDF Reviews & Custom Target Date Fund Considerations



# Executive Summary

## Historical Reviews

### November 2021

- Market Overview & Target Date Trends
- Plan Participant Utilization
- BlackRock LifePath Strategy Review
- BlackRock LifePath Performance Review

### August 2020

- Market Overview & Target Date Trends
- Plan Participant Utilization
- BlackRock LifePath Strategy Review
- BlackRock LifePath Performance Review

### September 2019

- BlackRock LifePath Target Date Fund Changes Memo

### January 2018

- Market Overview & Target Date Trends
- Plan Participant Utilization
- BlackRock LifePath Strategy Review
- BlackRock LifePath Performance Review

### 2021 Recommendations

1. Retain BlackRock
2. Designation BlackRock LifePath TDF as the default investment for auto-enrollment

### 2020 Recommendations

1. Retain BlackRock

### 2019 Recommendations

1. Retain BlackRock

### 2018 Recommendations

1. Retain BlackRock
2. Transition to lower-fee share class
3. Add the 2060 Fund once the 2020 Fund merges into the Retirement Fund

# Custom Target Date Fund Options

- There are different levels of customization available across target date funds:
  - A custom glide path, designed specifically for the plan's participants
  - An off-the-shelf glide path that utilizes open architecture funds, primarily those available on the plan's core investment lineup
- The level of customization will impact:
  - Liability and oversight from the Board
  - Fees
  - Internal resources
  - Operations
  - Evaluation and monitoring practices
- Management and Oversight
  - The use of a non-discretionary investment advisor (typically operating as an ERISA 3(21) fiduciary)
  - The use of a discretionary investment manager (typically operating as an ERISA 3(38) fiduciary)

# Considerations of Off-the-Shelf vs. Custom TDFs

- Custom TDFs allow for building custom glide paths to accommodate unique attributes of the plan’s underlying demographics and/or leverage custom underlying investment options. However, other factors to consider are the expected administrative burden, oversight considerations, and costs.
- There are a wide variety of glidepath designs and objectives available in the off-the-shelf TDF marketplace, and plan sponsors generally can receive a more cost-effective TDF solution from an off-the-shelf product.

	Off-the-shelf TDF	Custom TDF
Potential for custom glide path	X	✓
Ability to Leverage Investment Menu Options	✓	✓
Financial Cost	Investment management fees	Investment management fees + 3(38) fees + CIT unitization fees + other operational costs + Potential administrative oversight costs
Minimal Administrative Resources	✓	x
Minimal Additional Oversight Responsibilities	✓	oversight of any new building blocks and the 3(38) service provider

# Operational Complexities of Custom TDFs

## Operational and Oversight Considerations

There are additional operational and oversight considerations that a plan's fiduciary should be aware of before considering custom solutions:

	Custom Solutions
<b>Responsibility / Oversight</b>	<p>Additional responsibilities may include:</p> <ul style="list-style-type: none"> <li>• Fund asset allocation decisions</li> <li>• Fund operations (error correction policies, fund accounting and reporting, connectivity to recordkeeper)</li> <li>• Benchmarking custom solutions</li> <li>• Periodic reviews of 3(38) services</li> </ul> <p>**Some of these responsibilities can be delegated to a 3(38) manager</p>
<b>Administrative / Operational Duties</b>	<p>Additional responsibilities include:</p> <ul style="list-style-type: none"> <li>• Review / upload custom fund fact sheets</li> <li>• Ensure timely reporting of custom CITs to recordkeeper</li> <li>• Additional legal reviews (and costs)</li> </ul> <p>**Some of these responsibilities can be delegated to a 3(38) manager</p>
<b>Resources / Staffing Costs</b>	<ul style="list-style-type: none"> <li>• Potential for additional staff time commitments associated with implementation, ongoing monitoring, and periodic reviews.</li> <li>• Potential for additional coordination and collaboration between the plan's consultant, custom TDF provider, and recordkeeper.</li> <li>• Potential for engagement with an external party to review the plan's 3(38) manager's services.</li> </ul>



# Off-the-Shelf vs. Custom Target Date Fund

## Evaluation & Considerations

- Are there unique characteristics about the plan's attributes and participant demographics that may justify a custom glide path?
- Is there a desire by the Board to leverage the due diligence and oversight of the investments within the core menu and utilize open-architecture across the target date fund option?
- Is there a desire by the Board to implement the asset allocation of the target date fund differently than what is available through the current approach, or an alternative off-the-shelf option?
- Is there a desire by the Board to be more involved in determining and selecting the underlying asset classes and investment managers within the target date fund option?
- From an operational standpoint, does the current record keeping system have the ability to facilitate a custom target date fund series?
- How would investment management costs be impacted? Will they decrease, increase, or stay the same?

PORTLAND

BOISE

CHICAGO

NEW YORK

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