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Target date index funds: It's not just about fees

When it comes to choosing target date index funds, the focus tends to be on who charges the lowest fees. But differences in glidepaths and portfolio construction may actually have a much larger impact on investor outcomes.

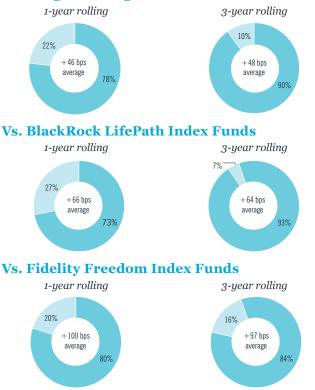
Consider how the TIAA-CREF Lifecycle Index Funds have performed relative to key competitors in this space.

TIAA-CREF LIFECYCLE INDEX FUNDS

Consistent outperformance across market cycles

- % of periods Lifecycle Index outperformed
- % of periods Lifecycle Index underperformed

Vs. Vanguard Target Retirement Funds



On average, the TIAA-CREF Lifecycle Index Funds have outperformed the Vanguard Target Retirement Funds:

- 78% of the time (rolling 1-year periods)
- 90% of the time (rolling 3-year periods)
- By an average of +46 basis points (+0.46%) and +48 basis points (+0.48%) over the 1- and 3-year periods, respectively

On average, the TIAA-CREF Lifecycle Index Funds have outperformed the BlackRock LifePath Index Funds:

- 73% of the time (rolling 1-year periods)
- 93% of the time (rolling 3-year periods)
- By an average of +66 basis points (+0.66%) and +64 basis points (+0.64%) over the 1- and 3-year periods, respectively

On average, the TIAA-CREF Lifecycle Index Funds have outperformed the Fidelity Freedom Index Funds:

- 80% of the time (rolling 1-year periods)
- 84% of the time (rolling 3-year periods)
- By an average of +100 basis points (+1.00%) and +97 basis points (+0.97%) over the 1- and 3-year periods, respectively

Data as of 30 Sep 2023. The target date providers used for the peer comparison include the top three providers with the largest total assets in index target date funds, according to Morningstar's 2022 Target-Date Fund Landscape report. Rolling 1- and 3-year returns are calculated monthly. Average outperformance is calculated by comparing performance of similar vintage funds for each rolling period, and averaging the difference in returns across the series. For example, the TIAA-CREF Lifecycle Index Fund was compared to Vanguard Target Retirement 2025 Fund, BlackRock LifePath 2025 Index Fund, and the Fidelity Freedom Index 2025 Fund. The performance and rolling periods shown for Vanguard uses the Vanguard Target Retirement Funds share class. The performance and rolling periods shown for the BlackRock comparison uses the K share class and compares the BlackRock LifePath Index Fund inception (1 Jun 2011). The performance and rolling periods shown for Fidelity Freedom Index Fund inception) until 01 Jul 2015 in which the Institutional Premier share class is used.

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AWARD WINNING TEAM¹

Rolling period comparison

Better upside and downside

When comparing relative performance of target date index fund series, it's often prudent to consider the impact of short-term volatility. One way to do this is by reviewing the worst 12-month performance of each series. Of course, comparing the best 12-month performance can also be revealing.

Vs. Vanguard Target Retirement Funds

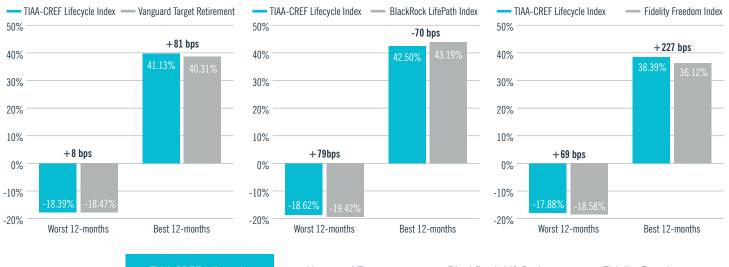
Comparing worst 1-year performance, TIAA-CREF Lifecycle Index Funds' decline was on average 8 bps (+0.08%) less than Vanguard's decline. Meanwhile, Lifecycle Index's best 1-year performance averaged +81 bps (+0.81%) higher.

Vs. BlackRock LifePath Index Funds

Comparing worst 1-year performance, TIAA-CREF Lifecycle Index Funds' decline was on average 79 bps (+0.79%) less than BlackRock's. Meanwhile, Lifecycle Index's best 1-year performance averaged -70 bps (-0.70%) lower.

Vs. Fidelity Freedom Index Funds

Comparing worst 1-year performance, TIAA-CREF Lifecycle Index Funds' decline was on average 69 bps (+0.69%) less than Fidelity's. Meanwhile, Lifecycle Index's best 1-year performance averaged +227 bps (+2.27%) higher.



	TIAA-CREF Lifecycle	Vanguard Target	BlackRock LifePath	Fidelity Freedom
	Index Institutional	Retirement Funds (TRFs)	Index K-Shares	Index Institutional Premier
Average expense ratio for over \$5 million investments	0.10%	0.08%	0.09%	0.08%

While costs are important, variances in performance have historically been much greater than the 1 or 2 basis points in fee differential.

Source: Morningstar. Fees shown are for prospectus net expense ratio for the Institutional share class (TIAA-CREF and Vanguard), Institutional Premier (Fidelity) and K share class (BlackRock) as of 31 Dec 2022. Data as of 30 Sep 2023. Rolling one year returns are calculated monthly. Analysis compares performance of similar vintage funds for each one year rolling period. For example, the TIAA-CREF Lifecycle Index Fund was compared to Vanguard Target Retirement 2025 Fund, BlackRock LifePath 2025 Index Fund, or the Fidelity Freedom Index 2025 Fund. Worst one year return was calculated for each vintage (e.g. 2025 Funds) in both series and compared to each other. The difference in worst one year reformance for each vintage was then averaged across the series. A similar process was used to determine best one year returns. Rolling periods cover the longest comparison uses the K share class and compares the BlackRock LifePath Index Fund inception (1 Jun 2011). The performance and rolling periods shown for Fidelity Freedom Index Funds uses the Investor share class is used.

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TIAA-CREF Lifecycle Index Funds returns (%)

Institutional Share Class as of 30 Sep 2023

N	T . 1	Inception	2	VTD		2	-	10	Since	Net expense
Name	Ticker		3 month	YTD	1 year	3 year	-	10 year	inception	ratio (%)
Lifecycle Index 2010 Fund	TLTIX	30 Sep 09	-2.57	3.67	8.47	0.82	3.44	4.58	5.69	0.10
Lifecycle Index 2010 Composite Benchmark			-2.53	3.53	8.51	0.88	3.51	4.67	5.81	
S&P Target Date 2010 Index		20.0 00	-2.62	3.14	8.30	1.03	3.09	4.09	5.10	0.10
Lifecycle Index 2015 Fund	TLFIX	30 Sep 09	-2.79	4.01	9.37	1.21	3.71	4.95	6.12	0.10
Lifecycle Index 2015 Composite Benchmark			-2.71	3.95	9.41	1.29	3.78	5.03	6.23	
S&P Target Date 2015 Index		20.0 00	-2.66	3.44	8.81	1.57	3.32	4.58	5.73	0.10
Lifecycle Index 2020 Fund	TLWIX	30 Sep 09	-2.96	4.42	10.25	1.63	3.95	5.38	6.62	0.10
Lifecycle Index 2020 Composite Benchmark			-2.84	4.40	10.33	1.72	4.04	5.47	6.74	
S&P Target Date 2020 Index		20.0.00	-2.73	3.96	9.96	1.91	3.44	4.95	6.23	0.10
Lifecycle Index 2025 Fund	TLQIX	30 Sep 09	-3.09	5.08	11.50	2.36	4.38	5.95	7.21	0.10
Lifecycle Index 2025 Composite Benchmark			-2.97	5.02	11.57	2.45	4.46	6.03	7.32	
S&P Target Date 2025 Index	T LLUN/	20.0	-2.80	4.35	10.97	3.03	4.02	5.56	6.87	0.10
Lifecycle Index 2030 Fund	TLHIX	30 Sep 09	-3.24	5.84	13.08	3.17	4.85	6.53	7.82	0.10
Lifecycle Index 2030 Composite Benchmark			-3.11	5.81	13.12	3.26	4.91	6.61	7.92	
S&P Target Date 2030 Index	T D (0) (-2.98	5.30	12.96	4.08	4.51	6.14	7.44	0.10
Lifecycle Index 2035 Fund	TLYIX	30 Sep 09	-3.41	6.79	15.00	4.06	5.33	7.10	8.41	0.10
Lifecycle Index 2035 Composite Benchmark			-3.25	6.81	15.10	4.18	5.42	7.20	8.53	
S&P Target Date 2035 Index			-3.14	6.34	15.18	5.24	5.07	6.72	7.99	
Lifecycle Index 2040 Fund	TLZIX	30 Sep 09	-3.55	7.80	17.02	5.11	5.87	7.68	8.91	0.10
Lifecycle Index 2040 Composite Benchmark			-3.36	7.88	17.11	5.24	5.95	7.77	9.02	
S&P Target Date 2040 Index			-3.23	7.23	17.06	6.16	5.53	7.15	8.39	
Lifecycle Index 2045 Fund	TLXIX	30 Sep 09	-3.57	8.50	18.31	5.99	6.33	8.05	9.18	0.10
Lifecycle Index 2045 Composite Benchmark			-3.38	8.58	18.37	6.12	6.41	8.15	9.29	
S&P Target Date 2045 Index			-3.33	7.79	18.32	6.72	5.81	7.41	8.65	
Lifecycle Index 2050 Fund	TLLIX	30 Sep 09	-3.59	8.78	18.86	6.21	6.44	8.17	9.26	0.10
Lifecycle Index 2050 Composite Benchmark			-3.39	8.89	18.92	6.33	6.51	8.26	9.37	
S&P Target Date 2050 Index			-3.36	8.03	18.84	7.01	5.93	7.60	8.82	
Lifecycle Index 2055 Fund	TTIIX	29 Apr 11	-3.62	8.91	19.14	6.35	6.50	8.25	8.30	0.10
Lifecycle Index 2055 Composite Benchmark			-3.39	9.03	19.18	6.49	6.59	8.35	8.40	
S&P Target Date 2055 Index			-3.36	8.04	18.97	7.12	5.98	7.68	7.73	
Lifecycle Index 2060 Fund	TVIIX	26 Sep 14	-3.59	9.00	19.34	6.51	6.57		7.80	0.10
Lifecycle Index 2060 Composite Benchmark			-3.40	9.17	19.45	6.64	6.66		7.89	
S&P Target Date 2060+ Index			-3.37	8.14	19.09	7.10	6.00		7.23	
TIAA-CREF Lifecycle Index 2065 Fund	TFIHX	30 Sep 20	-3.52	9.20	19.66	6.74			6.74	0.10
Lifecycle Index 2065 Fund Composite Index			-3.40	9.32	19.71	6.80			6.80	
S&P Target Date 2065+ Index			-3.37	8.16	19.00	7.16			7.16	
Lifecycle Index Retirement Income Fund TRILX 30 Sep 09		-2.75	3.78	8.84	0.82	3.48	4.44	5.40	0.10	
Lifecycle Index Retirement Income Composite Benchmark			-2.66	3.72	8.92	0.92	3.56	4.52	5.52	
S&P Target Date Retirement Income Index			-2.61	2.75	7.38	0.22	2.59	3.48	4.36	

The returns quoted represent past performance and does not predict or guarantee future results. The value of your investment will fluctuate so that your shares, when redeemed, may be worth more or less than their original cost. Returns do not reflect the taxes that a shareholder would pay on fund distributions or on redemptions of fund shares. The Expense Ratio and performance return of these funds reflect a contractual arrangement that limits certain fees and/or expenses. Had fees/expenses not been limited (capped), currently or in the past, returns would have been lower. Expense Cap Expiration Date: 30 Sep 2024. Current performance may differ from that shown above. For performance current to the most recent month-end, visit nuveen.com.

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The principal value of the fund(s) is not guaranteed at any time, including at the target date.

1 Refinitiv Lipper Fund Awards Winner United States 2016 – 2020, Best Mixed Assets Large Fund Family Group Over Three Years. The Refinitiv Lipper Fund Awards are based on the Lipper Leader for Consistent Return rating, which is a risk-adjusted performance measure calculated over 36, 60 and 120 months. Lipper Leaders fund ratings do not constitute and are not intended to constitute investment advice or an offer to sell or the solicitation of an offer to buy any security of any entity in any jurisdiction. For more information, see lipperfundawards.com. The Award is based on a review of risk-adjusted performance of 39 companies for 2016, 36 for 2017, 35 for 2018 & 2019, and 30 for 2020. The award pertains only to the TIAA-CREF mutual funds in the mixed-asset category. Certain funds have fee waivers in effect. Without such waivers ratings could be lower. Past performance does not predict or guarantee future results.

The Lifecycle Index Fund Composite Indexes are composites of unmanaged benchmark indices that represent the market sectors in which the Funds invest across the equity and fixed-income asset classes. The Composite Indexes change over time to correspond to changes in the Funds' target allocations, and provide a more relevant benchmark for the Funds' performance as compared to the Funds' unmanaged broad-based market indices.

The **S&P Target Date® Series** comprises twelve multi-asset class indices, each corresponding to a particular target retirement date. Each index provides varying levels of exposure to equities and fixed income. Each target date allocation is created and retired according to a pre-determined schedule related to the respective target date. It is not possible to invest directly in an index.

Important information on risk

Mutual fund investing involves risk; principal loss is possible. There is no guarantee the Fund's investment objectives will be achieved and the target date is an approximate date when investors may begin withdrawing from the Fund. Target date mutual funds are actively managed, so the asset allocation is subject to change and may vary from that shown and after the target date has been reached, the Fund may be merged into another with a more stable asset allocation. A portfolio that tracks an **index** is subject to the risk that it may not fully track its index closely due to security selection and may underperform when factoring in fees, expenses, transaction costs, and the size and timing of shareholder purchases and redemptions. The Fund is a fund of funds subject to the risks of its underlying funds in proportion to each Fund's allocation. These risks include those of fixed-income underlying funds risks which may be susceptible to general movements in the bond market and are subject to credit and interest rate risks as well as those of equity underlying funds risks, such as foreign investment and issuer risks. Credit risk arises from an issuer's ability to make interest and principal payments when due, as well as the prices of bonds declining when an issuer's credit quality is expected to deteriorate. Interest rate risk occurs when interest rates rise causing bond prices to fall. The Fund's income could decline during periods of falling interest rates. Non-U.S. investments involve risks such as currency fluctuation, political and economic instability, lack of liquidity and differing legal and accounting standards. These fixed-income underlying funds risks, such as call, extension, and income volatility risks as well as other risk considerations, such as active management risk and equity underlying funds risks, are described in detail in the Fund's prospectus.

Before investing, please advise your clients to carefully consider fund investment objectives, risks, charges and expenses. For this and other information that should be read carefully, please request a prospectus or summary prospectus from your Advisor Consultant at 800.752.8700 or visit nuveen.com.

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