

2022 Target-Date Strategy Landscape

Morningstar Manager Research

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Contents

- 2 Assets, Flows, and Competitive Landscape
- 19 Target-Date Leaders
- 24 The Glide Path
- 39 Innovations

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Executive Summary

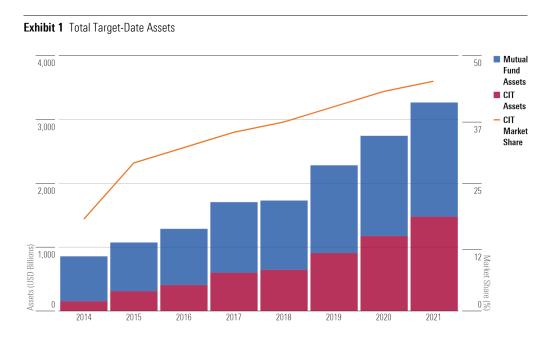
Target-date strategies continue to play a pivotal role in investors' retirement savings. Their ease of use makes them the logical default option in most 401(k) plans. In 2021, total assets in target-date strategies grew to a record \$3.27 trillion thanks in part to the remarkable growth of collective investment trusts and a general rebound in investor contributions following 2020's pandemic-driven slump. In this report, we examine the growing trend of CITs as plan sponsors' preferred target-date vehicle and how fees continue to be a key driver in target-date selection. We also look at the recent increase of equity exposure across target-date glide paths, primary differences between "to" versus "through" glide paths, and innovations in the target-date space.

Key Takeaways

- ► Target-date strategy assets grew to \$3.27 trillion at the end of 2021, up from \$2.8 trillion at the end of 2020.
- ► Investors' contributions bounced back in 2021 after slumping in 2020's market turmoil. Target-date strategies collected approximately \$170 billion in net inflows for the year, up from \$52 billion in 2020.
- Collective investment trusts, or CITs, are on pace to overtake mutual funds as the most popular target-date vehicle in the coming years. In 2021, CITs accounted for 86% of target-date strategy net inflows and now make up 45% of total target-date strategy assets, up from 32% five years ago.
- ▶ Industry behemoth Vanguard Target Retirement collected the most net new money after slipping last year from the top spot for the first time since 2008. It accumulated more than \$55 billion of net inflows in 2021, 99.9% of which went to its CIT vehicle.
- ► Fidelity Freedom Index continues to attract the largest net inflows among mutual funds. Of the \$45 billion it gathered, \$26 billion went to its mutual fund vehicle.
- ► The target-date industry remains top-heavy, with the largest five providers commanding nearly four fifths of assets, in line with 2020.
- ► Investors continue to flock toward lower fees. Mutual fund target-date share classes landing in the cheapest quintile amassed \$59 billion in inflows, up from \$41 billion in 2020.
- ▶ Investors, on average, are paying less for target-date funds. The average asset-weighted fee for target-date funds fell to 0.34%, down from 0.37% in 2020 and 0.51% five years ago.
- Over the past decade, target-date managers have become more comfortable with higher equity stakes. For investors furthest from retirement, stock weightings have moved up to 92% from 85% in 2011—some sponsors now start with nearly 100% in equities—while at retirement, they have climbed 3 percentage points to 46%.

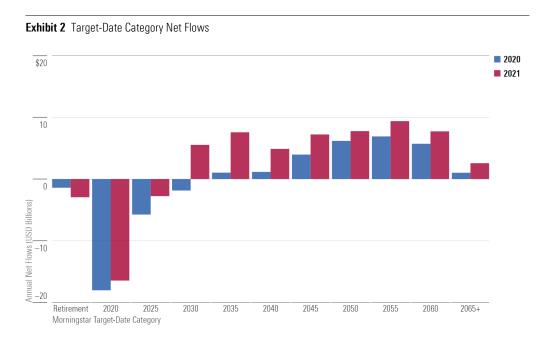
Assets, Flows, and Competitive Landscape

Assets in target-date strategies grew to a record \$3.27 trillion at the end of 2021, up almost 20% from the end of 2020. A strong rebound in net contributions to target-date strategies helped propel asset growth. Investors poured net inflows of \$170 billion into target-date strategies in 2021, up from \$52 billion in 2020. Collective investment trusts continued to attract most of the new money. In 2021, net contributions to CITs outpaced mutual funds \$146 billion to \$24 billion; CITs now make up 45% of assets in target-date strategies. If this trend continues, CITs will overtake mutual funds as the most popular target-date vehicle within a few years. Exhibit 1 illustrates the increase in target-date strategy assets and the CIT growth since 2014.



Source: Morningstar Direct, author's calculations, and surveyed data. Data as of Dec. 31, 2021.

The bounceback was broad and comprehensive. Net contributions were higher in 2021 than 2020 across all Morningstar mutual fund target-date categories. Larger contributions by younger investors help explain further-dated vintages' strong inflows. A Fidelity study found that 53% of Generation Z workers increased their contribution rate in 2021, more than any other working generation. That is a promising sign. Younger savers have long time horizons, which allow more time for savings to compound and opportunities to recover from market declines, such as the first quarter of 2020. Exhibit 2 shows the net flows over the past three years by Morningstar fund target-date categories.



Source: Morningstar Direct. Data as of Dec. 31, 2021.

Gen Z was not the only generation to up their contributions. Roughly 38% of individuals increased their total 401(k) contributions last year, according to the same study. The net contribution levels to target-date strategies moved in correlation with the overall increase in 401(k) contributions.

Investors in the nearest-dated categories continue to make withdrawals as they are in or approaching retirement. The 2030 category saw net inflows after experiencing net outflows in 2020. Outflows in categories 10-plus years from retirement have been rare and can hamper retirement savings, especially if the sellers miss swift market recoveries.

Total net inflows of \$170 billion dwarfed the \$52 billion of net inflows in 2020, an outlier year. The strong bounceback in flows surpassed 2019's figures as well. CITs made up 86% of 2021's net inflows, though mutual funds also rebounded, raking in \$24 billion after experiencing \$7.2 billion in net outflows the prior year. Yet target-date mutual fund flows in 2021 were less than half of what they were in 2019 due to the growing popularity of CITs.

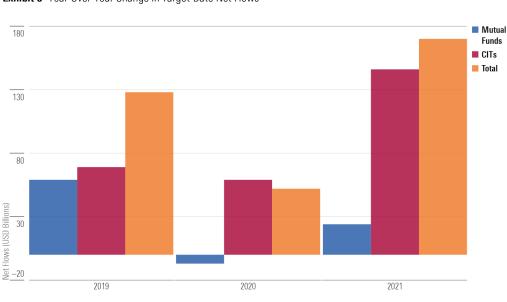


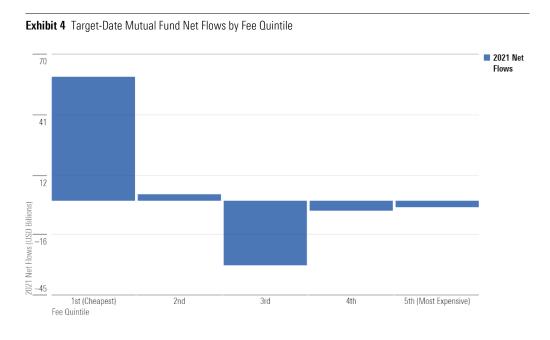
Exhibit 3 Year-Over-Year Change in Target-Date Net Flows

Source: Morningstar Direct and surveyed data. Data as of Dec. 31, 2021.

CITs' 2021 share of net inflows increased from 54% in 2019. Target-date CITs are only available through defined-contribution plans and have lower fees than their mutual fund counterparts. These lower costs explain CITs' allure since target-date providers typically manage their strategies similarly in both vehicles. CITs cost less because, unlike mutual funds, they are not required to charge every investor in each share class the same fee. This gives CITs more flexibility to lower fees for different plans depending on their asset size. For example, a plan with \$10 billion in assets is charged less than those with \$500 million.

CITs, however, lack mutual funds' transparency. For example, firms managing CITs are not required to disclose portfolio manager names. That is because CITs fall under the Department of Labor's Employment Retirement Income Security Act, which is less stringent than the Security and Exchange Commission's Investment Company Act of 1940 that governs mutual funds.

Low fees also continue to drive target-date mutual fund flows. Cheaper mutual fund target-date series have attracted more investor interest than those with higher price tags. Overall, target-date share classes landing in the cheapest quintile amassed \$59 billion in inflows, while the second-cheapest quintile gathered \$3 billion, as shown in Exhibit 4. The three more-expensive quintiles in aggregate shed more than \$38 billion. This trend builds on previous years, when net inflows also leaned hard to the cheapest decile of target-date share classes.



Source: Morningstar Direct and author's calculation. Data as of Dec. 31, 2021.

Vanguard Strikes Back

Vanguard Target Retirement Series reclaimed top asset-gatherer status after slipping last year for the first time since 2008. The series gathered more than \$55 billion in net mutual fund and CIT inflows in 2021, with its CITs taking in most of the net new dollars. Fidelity Freedom Index held on to its second-place spot, trailing Vanguard by roughly \$9.7 billion. BlackRock LifePath Index recorded a stable year of net inflows but fell to third from first in 2020 as Vanguard Target Retirement and Fidelity Freedom Index's strong recoveries leapfrogged it. CIT growth vaulted State Street Target Retirement into fourth, and American Funds Target Date Retirement, which experienced the second-highest mutual fund flows every year since 2016, rounded out the top five. JPMorgan SmartRetirement Blend is the only series that did not maintain its top-five spot from last year. Exhibit 5 outlines the five top series in terms of total 2021 mutual fund and CIT net inflows.

Series

Vanguard Target Retirement

Fidelity Freedom Index

BlackRock LifePath Index

State Street Target Retirement

American Funds Target Retirememt

0 15 30 45 60 2021 Net Flows (USD Billions)

Exhibit 5 Top Five Series by Net Inflows (Mutual Funds and CITs)

Source: Morningstar Direct and surveyed data. Data as of Dec. 31, 2021.

Vanguard Target Retirement's CIT net inflows were unparalleled in 2021. The \$55 billion it took in was over 2 times as much as its next closest CIT competitor, T. Rowe Price Retirement. Its target-date CIT success is cannibalizing its target-date mutual funds, though. Since peaking in 2017, Vanguard's mutual fund flows have slowed to a trickle. Exhibit 6 illustrates the series' declining mutual fund flows, while Exhibit 7 emphasizes its shift to CITs from mutual funds.



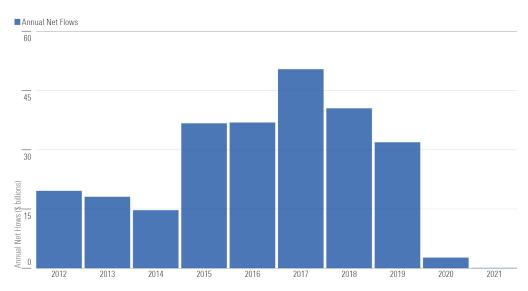
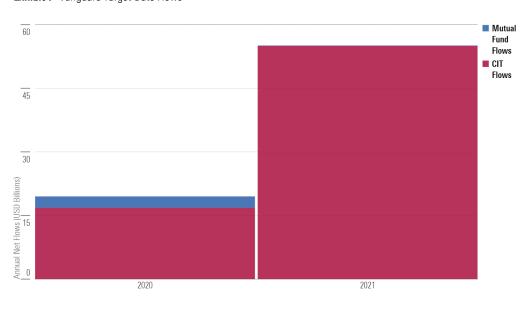


Exhibit 7 Vanguard Target-Date Flows



Source: Morningstar Direct and Vanguard. Data as of Dec. 31, 2021.

Old Money vs. New Money

CITs are stealing the thunder of other providers' mutual funds, too. T. Rowe Price Retirement, the firm's flagship series, has seen a similar shift. Its CITs are experiencing sizable net inflows, but unlike Vanguard, T. Rowe's mutual funds have been losing assets. Exhibit 8 illustrates the series flows in 2020 and 2021.

Exhibit 8 T. Rowe Price Retirement Series Flows

Source: Morningstar Direct and T. Rowe Price. Data as of Dec. 31, 2021.

The mutual fund's relatively higher fees have been a deterrent for T. Rowe Price Retirement. Although it has performed well—nine of 10 vintages placed in the top decile of their respective categories over the trailing 10-year period—selecting a series with a 0.41% average price tag can be daunting for a plan sponsor given the continued threat of excessive fee lawsuits. CITs allow active-based series, like T. Rowe Price Retirement, to charge lower fees and make their strategies more enticing. Exhibit 9 outlines the top five series by CIT flows.

Exhibit 9 Top Five Series by CIT Net Inflows							
Series	Morningstar Analyst Rating	2021 Net Flows (USD millions)					
Vanguard Target Retirement	♀ Silver	55,000					
T. Rowe Price Retirement	₩ Gold	26,727					
State Street Target Retirement	₹ Silver	19,471					
FIAM Index	Silver	19,400					
BlackRock LifePath Index	℧ Gold	19,100					

Source: Morningstar Direct. Data as of Dec. 31, 2021.

Fidelity Freedom Index and BlackRock LifePath Index are the only two series whose flows placed in the top five for both their mutual funds and CITs. Vanguard ranked 19th in mutual fund flows. Exhibit 10 outlines the top five series by mutual fund flows.

Exhibit 10 Top Five Series by Mutual Fund Net Inflows Morningstar Analyst Rating 2021 Net Flows (USD millions) Name 26,010 Fidelity Freedom Index 🛂 Silver American Funds Target Date Retirement 23,903 🐺 Silver 5,335 BlackRock LifePath Index **₩** Gold TIAA-CREF Lifecycle Index 4,069 Bronze Fidelity Freedom Blend 3,260

Source: Morningstar Direct. Data as of Dec. 31, 2021.

Fidelity Freedom Index's rock-bottom fees give it an edge among target-date mutual funds. Its institutional premium share class costs 0.08%—cheaper than 99% of peers across most vintages—and collected 85% of the series' flows. In January 2021, the firm slashed its institutional share class' minimum investment to \$5 million, 95% lower than its previous \$100 million threshold, giving more investors access to lower fees. This was a reaction to Vanguard's exact move a month earlier. Fidelity is the only provider to have two series on the list, as Fidelity Freedom Blend grabbed the fifth slot, with \$3.3 billion in net inflows. That said, the firm's flagship series, Fidelity Freedom, suffered \$16.7 billion in outflows because its high relative fees, which average 0.57% across its cheapest share class, damps its attractiveness.

American Funds also stands out among mutual funds, with nearly \$24 billion in net inflows. It has been one of the top-performing target-date series over the last five and 10 years and has low costs for a series that only uses actively managed underlying funds.

Beyond Net Flows

There are other signs that CITs are here to stay. Based on reported flow data, about \$20 billion in target-date mutual funds were converted to CITs in 2021. Exhibit 11 details the rise in CIT conversions over the past three years.

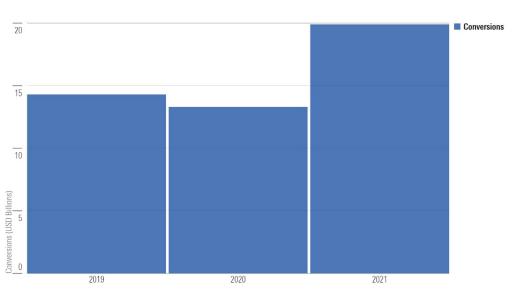


Exhibit 11 Mutual Fund to CIT Conversions

Source: Morningstar and surveyed data. Data as of Dec. 31, 2021.

Launches and Closes

The growing demand for CITs is also evident in the number of launches compared with mutual funds. Exhibit 12 illustrates the launches and closures of mutual fund and CIT target-date series.

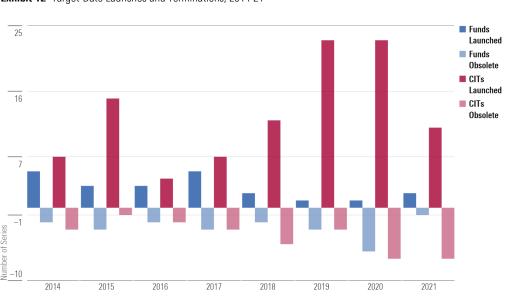


Exhibit 12 Target-Date Launches and Terminations, 2014-21

Source: Morningstar Direct. Data as of Dec. 31, 2021.

Two new target-date mutual fund series launched in 2021: American Century One Choice Blend+ Series and T. Rowe Price Retirement Blend Series, which is a clone of its CIT sibling that launched in 2018.

While down from last year, there was more CIT development. Five net new competitors entered the fray—11 launches and seven closures—even as the number of new CIT series reported to Morningstar roughly halved relative to 2020 and CIT closures remained the same year-over-year. Despite the decline in new CITs, launches exceeded retirements for the eighth straight year.

Dominating the Market

A few firms continue to manage most of the target-date assets. The top five providers control about 79% of target-date market share; the top 10 claims more than 90%. Exhibit 13 outlines the top 10 firms measured by target-date market share.

Exhibit 13	he 10 Largest Target-Date Providers	

		Assets (USD in Billi	ions)	Market Share			
Firm	Target-Date Series	Mutual Fund	CIT	Total TDF	2021	2020	
Vanguard				1,190	36.4%	36.7%	
	Vanguard Target Retirement	660	530				
Fidelity				460	14.1%	13.3%	
	Fidelity Freedom	221	_				
	Fidelity Freedom Index	106	46				
	Fidelity Freedom Blend	11	55				
	Fidelity Advisory Freedom	21	_				
	Fidelity Flex Freedom Blend	<1	_				
	Fideity Managed Retirement	<1	_				
T. Rowe Price			-	374	11.5%	11.6%	
	T. Rowe Price Retirement	180	170				
	T. Rowe Price Target	4	1				
	T. Rowe Price Retirement Hybrid	_	16				
	T. Rowe Price Retirement Blend	<1	4				
BlackRock		-		289	8.8%	9.5%	
	BlackRock LifePath Index	61	226				
	BlackRock LifePath Dynamic	1	1				
	BlackRock LifePath ESG Index	<1	_				
American Funds				248	7.6%	7.2%	
	American Funds Target Date Retirement	239	9				
State Street				122	3.7%	3.2%	
	State Street Target Retirement	12	110				
JPMorgan				110	3.4%	3.8%	
	JPMorgan SmartRetirement	36	5				
	JPMorgan SmartRetirement Blend	15	38				
	JPMorgan SmartRetirement (Direct Real Estate)	_	14				
	JPMorgan SmartRetirement Blend (DRE)	_	2				
Nuveen				87	2.7%	2.7%	
	TIAA-CREF Lifecycle	42	_				
	TIAA-CREF Lifecycle Index	42	<1				
	Nuveen TIAA Lifecycle Blend	_	2				
Principal	,			85	2.6%	2.7%	
	Principal LifeTime Hybrid	3	54				
	Principal LifeTime	26	2				
Schwab				31	0.9%	1.0%	
	Schwab Target	5	12				
	Schwab Target Index	4	10				

Source: Morningstar Direct, author's calculations, and surveyed data. Data as of Dec. 31, 2021.

There were no changes to the top 10 providers in 2021, but the ranks shuffled. State Street's CIT growth helped it overtake JPMorgan, whose flagship JPMorgan SmartRetirement series has struggled with net outflows recently. The series' lackluster recent performance has weighed on its long-term record.

Fidelity is nearing \$500 billion across its target-date strategies. Fidelity Freedom Index has attracted significant investor interest, more than offsetting the all-active Fidelity Freedom series' bleeding—it saw

its eighth straight year of outflows in 2021. Investors seem to be putting low price over past performance here because the cheapest share class of the all-active Fidelity Freedom beat the index-based Fidelity Freedom Index in each of the trailing one-, three-, five-, and 10-year periods through December 2021.

Big Plans Go Cheap

As of 2019, the most recent data available from the Morningstar investment data matched with Form 5500 data, 58% of 401(k) participants owned a target-date strategy, up from just 19% in 2006. Across some of the larger target-date providers, we evaluated the distribution of active, blend, and index-based target-date strategies across different plan sizes, as shown in Exhibit 14.

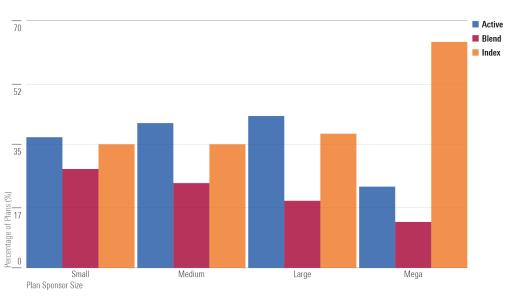


Exhibit 14 Distribution of Target-Date Type Across Plan Sponsor Size

Source: Morningstar analysis of Form 5500 data and author's calculations. Data as of 2019.

Target-date strategies that mostly invest in active underlying strategies are more common than index-based and blend strategies with small, medium, and large plan sponsors (defined as those with less than \$25 million, \$25 million-\$100 million, and \$100 million-\$500 million in assets, respectively). Blend strategies, which include both passive and active underlying strategies, on average have been more popular with small providers but compose less than half of the assets of plan sponsors of any size. The plans of most mega-size companies (\$500 million or more) preferred index-based target-date strategies.

Mega and large plans are most likely to use CITs. Mega-size plans made up 68% of plans using Vanguard's CITs but just 4% of its mutual funds. The T. Rowe Price Retirement and Fidelity Freedom Index series' display similar characteristics as shown in Exhibit 15. Larger plans' big asset bases give them greater leverage to negotiate more flexible, cheaper CIT arrangements. Yet based on our

conversations with target-date managers, more medium-size plans have adopted CITs since this data was collected.

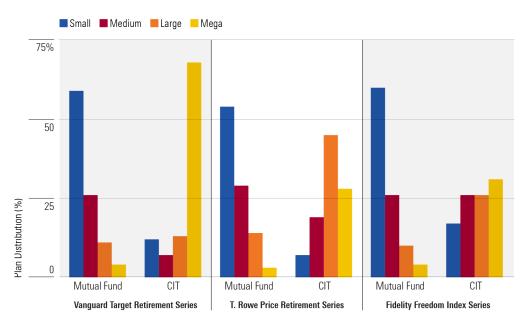


Exhibit 15 CITs Are More Prominent in Larger Plans

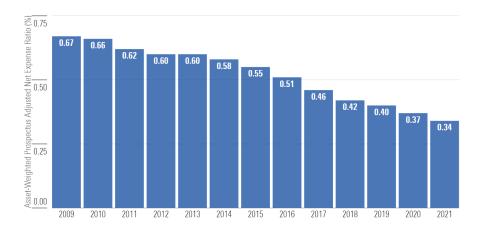
Source: Morningstar analysis of Form 5500 data and author's calculations. Data as of 2019.

Investors Are Paying Less

Demand for lower costs has pushed fees down for more than a decade. Exhibit 16 depicts the asset-weighted fee across all target-date mutual fund share classes dating back to 2009, including dead funds, based on their prospectus adjusted expense ratio and year-end net assets. This metric provides a more indicative view of what investors are paying for their target-date funds. CIT fee data is not as transparent and therefore is not included, but anecdotal evidence indicates CITs would pull the average lower.

Exhibit 16 Target-Date Funds' Year-End Asset-Weighted Expense Ratio, 2009-21





Source: Morningstar and author's calculations. Data as of Dec. 31, 2021.

The asset-weighted fee has dropped by 5.5% annually. It shed about 8% in 2021, moving down to 34 basis points from 37 basis points. Since 2009, expenses have nearly halved—a significant improvement for retirement savers.

Not only did assets continue to flow into lower-cost target-date funds, but there were notable fee reductions as well. The three series below reduced their average prospectus adjusted net expense ratio for a share class between 2020 and 2021.

Exhibit 17 Average Target-Date Prospectus Adjusted Net Expense Ratio

Series	2020 Avg. Expense Ratio	2021 Avg. Expense Ratio	% Change
Voya Target Retirement	0.70	0.49	-30%
Pimco RealPath Blend	0.48	0.43	-11%
T. Rowe Price Target	0.64	0.58	-9%

Source: Morningstar Direct and author's calculations. Data as of Dec. 31, 2021.

The Voya Target Retirement Series made the largest cut. Its average fee fell from 70 basis points to 49 basis points, a 30% reduction that was nearly 3 times larger than its closest competitor's. The series slashed its management fee to 0.18% from 0.40%, though increases to other expenses and acquired fund fees for some share classes ate a portion of the reduction.

Fees Keep Moving Lower

Fees across the industry continue to come down as providers cut costs. This isn't a new phenomenon but rather one that has gained steam over the last decade. Exhibits 18 and 19 depict the average prospectus adjusted net expense ratio for the cheapest share class of all 2025 and 2045 target-date funds, including dead funds, separated by fee quintile.

1.20 1st (Cheapest) 2nd — 3rd – 4th 0.90 — 5th (Most Expensive) 2009 2010 2011 2012 2013 2014 2015 2016 2017 2019 2020 2021

Exhibit 18 Average Prospectus Adjusted Net Expense Ratio by Fee Quintile for 2025 Funds

Source: Morningstar and author's calculations. Data as of Dec. 31, 2021.

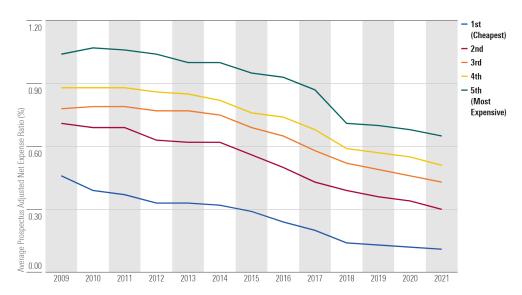


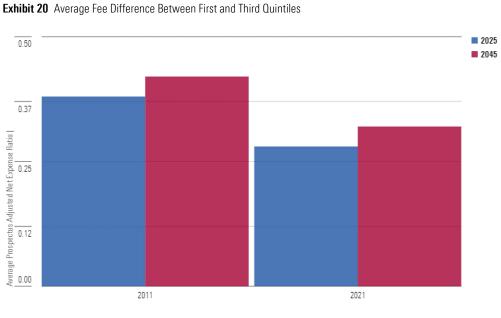
Exhibit 19 Average Prospectus Adjusted Net Expense Ratio by Fee Quintile for 2045 Funds

Source: Morningstar and author's calculations. Data as of Dec. 31, 2021.

Over the last year, the cheapest and second-cheapest quintiles experienced the largest average fee reduction on a percentage basis, dropping 9.4% and 14.6%, respectively, for the 2025 vintages and 10.4% and 12.2% for the 2045 vintages. The three pricier quintiles' average fee also dropped but at a smaller mid-to-high single-digit-clip for both vintages.

The cheapest quintile has less room to make future cuts given its lower starting point and how far fees have already fallen. The average fee in this group is now 0.11% for both vintages, down from the 0.47% and 0.46% respective price tags of the 2025 and 2045 vintages at the beginning of the period. That is a 76% reduction overall — the fastest among all quintiles. However, the rate of reductions has slowed following a flurry of cuts in 2018.

As the cheapest target-date funds inch closer to their price floors, the price gap has tightened between the cheapest funds and those in the middle quintile. Exhibit 20 depicts the slimmer margin.



Source: Morningstar and author's calculations. Data as of Dec. 31, 2021.

Compared with a decade ago, the fee gap between the two quintiles has shrunk by 10 basis points for both the 2025 and 2045 vintages. Plus, that gap has tightened each of the last five years as the pace of fee reductions has slowed for the cheapest funds. It is difficult to say how low the cost of the cheapest offerings can go, but the more modestly priced offerings are making up ground.

Target-Date Leaders

Morningstar Analyst Ratings for Target-Date Series

Exhibit 21 shows ratings assigned to the cheapest share class of the target-date mutual funds series that Morningstar analysts cover, as of March 2022, along with the average expense ratio across its vintages. It also highlights how the Morningstar Analyst Rating, People Pillar, Process Pillar, and Parent Pillar changed between March 2021 and March 2022. Overall, one series received an upgrade to its Morningstar Analyst Rating and another was added to coverage. Three series earned Pillar rating downgrades and one earned a Pillar rating upgrade but retained their overall Morningstar Analyst Ratings.

Exhibit 21 Morningstar Analyst Ratings for Target-Date Mutual Funds

		Pillar Rating ↑ Upgrades ↓ Downgrades						
Strategy Name	Morningstar Analyst Rating	People	Process	Parent				
BlackRock LifePath Index	℧ Gold	High	Above Average	 Above Average 				
Pimco RealPath Blend	℧ Gold	High	Above Average	 Above Average 				
JPMorgan SmartRetirement Blend	℧ Gold	Above Average	High	 Above Average 				
American Funds Target Date Retirement	℧ Gold ↑	High	● High ↑	High				
MassMutual Select TRP Retirement	℧ Gold	High	High	Average				
T. Rowe Price Retirement	₩ Gold	High	High	High				
Fidelity Freedom Index	 Silver	Above Average	Above Average	Above Average				
State Street Target Retirement	👽 Silver	Above Average	Above Average	Above Average ↑				
Vanguard Target Retirement	😈 Silver	Above Average	Above Average	High				
Fidelity Freedom	 Silver	High	Above Average	Above Average				
JPMorgan SmartRetirement	 Silver	Above Average	High	Above Average				
BlackRock LifePath Dynamic	 Silver	High	Above Average	Above Average				
Schwab Target Index	😈 Bronze	Above Average	Average	Above Average				
TIAA-CREF Lifecycle Index	🐷 Bronze	Average	Above Average	Average				
Fidelity Advisor Freedom	₩ Bronze	Above Average	Above Average	Above Average				
Dimensional Target Date Retirement Income	Neutral	Average	Average	High				
John Hancock Multi-Index Lifetime	Neutral	Average	Average	Above Average				
Schwab Target	Neutral	Average	Average	Above Average				
MFS Lifetime	Neutral	Above Average	Average	Above Average				
Principal Lifetime Hybrid	Neutral	Average	Average	Average				
John Hancock Multi-Index Preservation	Neutral	Average	Below Average	Above Average				
TIAA-CREF Lifecycle	Neutral	Average	O Average →	Average				
American Century One Choice	Neutral	Average	Average	Average				
Principal LifeTime	Neutral	Average	Average	Average				
MassMutual RetireSMART by JPM	Neutral	O Average →	Average	Average				
John Hancock Multimanager Lifetime	Neutral	O Average →	Average	Above Average				
Natixis Sustainable Future	Neutral	Below Average	Average	Average				
Voya Solution	Neutral	Average	Average	Average				

Source: Morningstar Direct. Data as of March 23, 2022.

American Funds Target Date Retirement's rating moved to Gold from Silver because of increased confidence in the team's asset-allocation process and the robust processes of its underlying funds. It is the second target-date series to earn a High rating across all pillars, indicating Morningstar analysts' strong conviction in the series' long-term potential.

Schwab Target Index Series earned an inaugural Morningstar Analyst Rating of Bronze. The series features solid building blocks and comes with a low price tag of 0.08% across its vintages.

Morningstar analysts currently cover 23 CIT target-date series, shown in Exhibit 22, most of which clone their mutual fund counterparts. T. Rowe Price Retirement Blend and Manning & Napier's target-date series, however, only receive Morningstar Analyst Ratings for their CIT offerings. T. Rowe Price Retirement Blend's CIT, which launched two years before its mutual fund sibling, earns a Gold rating due to our confidence in its topnotch asset-allocation team and lead manager, Wyatt Lee. The series boasts some of T. Rowe Price's best active managers while using passive strategies for core exposures to keep costs in check. Manning & Napier's target-date series is only available as a CIT after the firm closed the mutual fund clone in 2020. It earns a Morningstar Analyst Rating of Neutral. The three Bronze-rated IndexSelect series are also only available in a CIT wrapper.

Exhibit 22 Morningstar Analyst Ratings for Target-Date CITs

		Pillar Rating ↑ Upgrades ↓ Downgrades					
Strategy Name	Morningstar Analyst Rating	People	Process	Parent			
Capital Group Target Date Retirement	₩ Gold	High	High	High			
T. Rowe Price Retirement	℧ Gold	High	High	High			
T. Rowe Price Retirement Blend	℧ Gold	High	High	High			
Pimco RealPath Blend	℧ Gold	High	Above Average	 Above Average 			
BlackRock LifePath Index	℧ Gold	High	Above Average	Above Average			
BlackRock LifePath Index Non-Lendable	₩ Gold	High	Above Average	Above Average			
BlackRock LifePath Index, Wilmington Trust	℧ Gold	High	Above Average	Average			
BlackRock LifePath Idex Non-Lendable, Wilmington Trust	℧ Gold	High	 Above Average 	Average			
JPMorgan SmartRetirement Passive Blend	℧ Gold	 Above Average 	High	 Above Average 			
JPMorgan SmartRetirement	 Silver	Above Average	High	Above Average			
Vanguard Target Retirement	 Silver	Above Average	Above Average	High			
StateStreet Target Retire Non-Lending	 Silver	Above Average	Above Average	Above Average ↑			
StateStreet Target Retire Lending	 Silver	Above Average	Above Average	Above Average ↑			
FIAM Index Target Date	 Silver	Above Average	Above Average	Above Average			
Schwab Indexed Retirement	□ Bronze	Above Average	Average	 Above Average 			
IndexSelect Aggressive Retirement	₩ Bronze	Above Average	Average	Average			
IndexSelect Conservative Retirement	록 Bronze	Above Average	Average	Average			
IndexSelect Moderate Retirement Trust	᠍ Bronze	 Above Average 	Average	Average			
Schwab Managed Retirement Trust	Neutral	Average	Average	 Above Average 			
Voya Target Solution Income Trust	Neutral	Average	Average	Average			
Manning & Napier Retirement Target	Neutral	Average	Average	Average			
Principal Lifetime Hybrid Target	Neutral	Average	Average	Average			
American Century Target Date	Neutral	Average	Average	 Average 			

Source: Morningstar Direct. Data as of March 23, 2022.

Leaders and Laggards

Exhibit 23 shows the average category ranks for each series' cheapest share class and the year-over-year change.

Exhibit 23 Trailing Average Category Ranks by Target-Date Mutual Fund — Cheapest Share Class

	1-Year			3-Year			5-Year			10-Year		
			Rank			Rank			Rank			Rank
Series Name	12/31/21	12/31/20	Change									
American Funds Target Date Retirement	23	26	3	20	19	-1	9	17	8	2	3	1
T. Rowe Price Retirement	10	10	_	8	8	_	8	8	_	6	6	_
TAA-CREF Lifecycle	27	27	_	37	37	_	20	20	_	8	8	_
TAA-CREF Lifecycle Index	52	22	-30	23	10	-13	12	11	_	12	4	-7
ohn Hancock Multimanager Lifetime	50	8	-42	9	18	9	14	11	-3	13	20	8
oya Index Solution	24	40	16	31	32	1	27	36	9	27	24	-3
NFS Lifetime	22	71	49	31	43	12	28	39	12	30	34	4
anguard Target Retirement	69	43	-26	52	34	-18	40	34	-7	31	21	-10
reat-West Lifetime	52	61	9	56	60	4	59	45	-14	33	34	1
idelity Freedom	54	17	-37	28	28	_	20	18	-3	34	37	3
PMorgan SmartRetirement	52	53	1	52	65	13	53	56	3	34	35	1
rincipal LifeTime	45	31	-14	26	32	6	26	45	20	35	33	-2
oya Solution	32	30	-2	37	55	18	44	55	11	35	39	4
lackRock LifePath Index	33	55	22	33	30	-3	29	34	5	37	_	_
delity Advisor Freedom	65	27	-38	27	17	-10	19	15	-4	42	41	-1
ationwide Destination	56	63	7	58	59	_	70	49	-21	42	40	-2
lackRock LifePath Dynamic	32	52	20	29	26	-2	14	20	6	42	37	-5
lassMutual RetireSmart by JPM	33	75	42	59	52	-7	49	53	4	47	53	5
chwab Target	43	54	11	57	68	11	61	76	15	51	39	-12
merican Century One Choice	80	32	-47	67	34	-32	69	58	-11	57	37	-20
delity Freedom Index	73	41	-32	47	24	-24	35	25	-10	59	52	-7
oldman Sachs Target Date	47	66	19	64	40	-24	74	71	-3	71	64	-7
anklin LifeSmart	29	57	29	64	61	-3	62	86	24	72	79	7
uidestone Funds MyDestination	62	74	12	72	62	-10	60	49	-11	75	72	-3
arbor Target Retirement	98	18	-80	69	29	-40	71	43	-28	78	68	-10
utnam RetirementReady	79	86	7	95	96	1	96	96		79	76	-3
hn Hancock Multi-Index Preservation	91	56	-35	85	59	-26	84	63	-20	81	64	-17
SAA Target Retirement	39	90	51	88	94	6	89	87	-2	88	86	-2
llspring Target Series*	62	91	29	86	83	-2	90	88	-2	88	88	-
tate Street Target Retirement	70	10	-59	26	8	-18	19	9	-9		_	_
Ilspring Dynamic Target*	11	67	56	50	37	-13	21	34	13	_	_	-
oya Target Retirement	13	25	12	15	38	23	24	45	22	_	_	_
Rowe Price Target	55	25	-30	41	23	-18	31	33	2	-	_	-
imensional Target Date	9	38	29	26	50	23	33	46	12	_	-	_
ohn Hancock Multi-Index Lifetime	17	49	31	27	38	11	35	25	-10			_
incipal Lifetime Hybrid	17	37	20	22	52	29	38	48	10	_	-	_
mco RealPath Blend	17	52	35	40	42	2	40	29	-10	_	-	-
chwab Target Index	40	62	22	55	40	-15	48	_		_	-	-
ransamerica ClearTrack	33	48	15	40	50	9	58	63	5	_	_	_
PMorgan SmartRetirement Blend	47	74	27	69	69	0	64	57	-8	_	_	_

Source: Morningstar Direct. Data as of Dec. 31, 2021.

	1-Year			3-Year			5-Year			10-Year			Legend
Series Name	12/31/21	12/31/20	Rank Change	Positive Negativ									
Prudential Day One Target Date	3	88	85	64	81	17	66	_	_	_	_	_	
Natixis Sustainable Future	35	21	-14	25	7	-18	_	_	_	_	_	_	
Columbia Adaptive Retirement	88	70	-18	59	37	-22	_	_	_	_	_	_	
Invesco Peak Retirement	60	88	28	88	88	_	_	_	_	_	_	_	
1290 Retirement	46	98	52	94	89	-5	_	_	_	_	_	_	
BlackRock LifePath ESG Index Series	20	_	_	_	_	_	_		_	_	_	_	

Over the past decade, the American Funds Target Date Retirement series has delivered strong returns. On average, its funds topped 98% of peers in their respective categories. It features a strong lineup of actively managed funds, with 90% of assets in Morningstar Medalist funds. The glide path has an above-average equity weighting — most pronounced in the years leading up to retirement — but a cash stake and high-quality bonds provide good defense in downturns. The firm's mega- and large-cap tilt has helped over the past decade as small caps have underperformed. And yet, in 2021 when the small-value category topped the other eight domestic-equity Morningstar Style Box categories, American Funds target-date funds still averaged top-quartile returns. An extended streak where small caps or lower-quality bonds outperform might detract from relative performance, but for the long term, the formula is sound.

The T. Rowe Price Retirement series also delivered top-decile 10-year returns. It features an aggressive equity tilt across its glide path, plus four of its top six holdings across the series posted top-quartile 10-year returns in their categories. John Hancock Multimanager Lifetime experienced the largest jump in 10-year average rankings, climbing to the 13th percentile from the 20th percentile; robust equity markets in recent years have been a boon to its equity-heavy glide path.

The 2021 calendar year also served as a reminder that being overly conservative when saving for retirement has significant drawbacks. American Century One Choice and John Hancock Multi-Asset Preservation both fell the furthest in 10-year rankings, dropping 20 and 17 percentile points, respectively. The American Century series features one of the flattest glide paths in the industry; its equity allocation is lower in equity than peers across the glide path until it hits retirement. The John Hancock Multi-Asset Preservation series references its defensive profile in its name, with below-average equity weightings across its glide path until it bottoms out at just 8% at retirement. Across target-date categories, this John Hancock series lagged roughly 90% of peers in 2021—contributing to the series' bottom-quintile ranking over the past decade.

Performance Across Categories

The returns across the glide path in 2021 reflect broader market performance. Robust equity markets—the Morningstar US Market Index gained nearly 26%—supported healthy gains for the most equity-heavy vintages. Indeed, the most aggressive 2065+ category averaged the highest total return in 2021, posting a gain of 18%. The target-date retirement Morningstar Category's average 5.5% return, meanwhile, placed at the other end of the spectrum. The Morningstar US Core Bond Index's 1.6%

tumble weighed on returns since it is the most fixed-income-heavy category. The remaining categories fell in line, respectively. Exhibit 24 outlines the annual returns of the two categories at the beginning and end of the glide path as well as the Morningstar US Market Index and Morningstar US Core Bond Index over the past four years.

40 ■ Target-Date 2065+ ■ Target-Date Morningstar 25 Market Index Morningstar US Core Bond 10 Select Index 2018 2019 2020 2021

Exhibit 24 Target-Date 2065+ and Retirement Category Performance

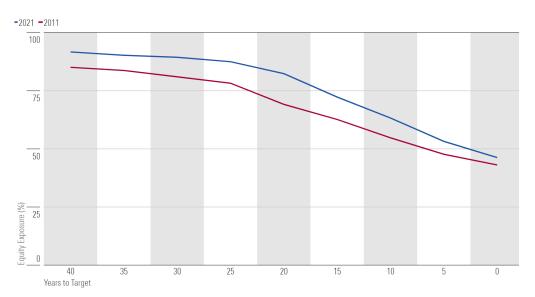
Source: Morningstar Direct. Data as of Dec. 31, 2021.

The Glide Path

Target-Date Strategies Are Leaning Into Equities

Glide paths have been anything but static over the past decade. Using year-end Morningstar Category data, we reconstructed the median equity glide path and compared it with 10 years ago (2011). A clear trend materialized: The allocation to equities across the median glide path has ticked up noticeably and consistently across all vintages between the starting point and retirement.





Source: Morningstar Direct and author's calculations. Data as of Dec. 31, 2021.

At the starting point, stock weightings have moved up 7 percentage points to 92% from 85% in 2011—with some sponsors now starting at nearly 100% in equities—while at retirement, they have climbed 3 percentage points to 46%. On a relative basis, the largest change came in the portfolios 20 years to retirement. A decade ago, the median vintage counted 69% of assets in equities. Yet in 2021, it was nearly than one-fifth larger, clocking in at 82%.

Many factors explain this upward movement. Firms' preference for "through" retirement glide paths over "to" retirement helps explain why growing equity allocations are most pronounced closest to retirement. Of the 28 active target-date series that have launched in the past decade, nearly four fifths manage through retirement. Generally, these glide paths can derisk more methodically and gradually, allowing them to take on more equity risk during savers' working years.

More broadly, equities have been on a tear since the 2007-09 global financial crisis. Strong markets have consistently punished investors for rebalancing out of equities, and the drawdowns have been few and far between. The swift recovery following early 2020's dramatic coronavirus-induced market selloff may have emboldened managers, too. The low interest-rate environment also portends meager returns for fixed-income markets, which impacts the long-term capital markets assumptions that providers use when structuring glide paths. And the specter of rising rates could chip away at the shelter that bonds offer in diversified portfolios.

Yet changing investor preferences and behavior might play a larger role. Some target-date managers, like T. Rowe Price, have bolstered their participant research capabilities to observe withdrawal rates in retirement. This research helps determine whether savers are well-positioned to outlive their savings and informs their asset-allocation research. After two years of research and dialogue with participants, the managers behind the Gold-rated T. Rowe Price Retirement series concluded that, over the past decade, retirement savers have become more comfortable with larger equity stakes and the higher volatility that comes with it. In 2020's second quarter, management kicked off a two-year transition to push the glide path up across almost every vintage, with notable hikes at the beginning and toward the end. Indeed, the series starts with a whopping 98% stake in equities—only BlackRock is higher at 99%—up from the series' previous 90% starting point. Management then keeps the equity stake consistently high. The 2035 vintage's expected 87% equity position is 7 percentage points greater than its previous posture and 5 percentage points higher than the next-closest peer.

BlackRock, meanwhile, has long been one of the more aggressive sponsors furthest from retirement. Its target-date offerings, which include the Gold-rated BlackRock LifePath Index series, have started with 99% of assets in equities for years and maintain a higher equity posture relative to the average peer until roughly 10 years to retirement. Management updated this in 2014 based on research into investor preferences and behavior, as well as updated long-term capital market assumptions. Exhibit 26 compares these two more-aggressive glide paths with the peer average.

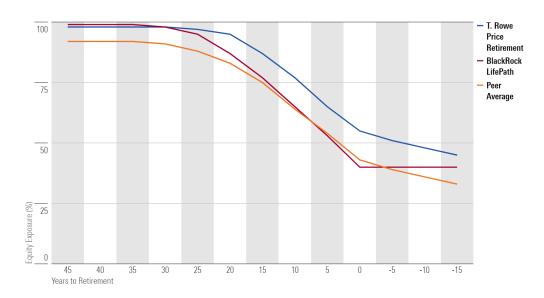
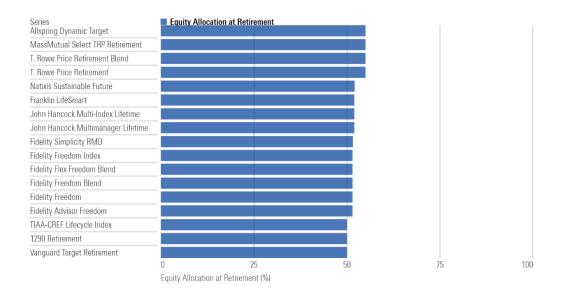


Exhibit 26 T. Rowe Price Retirement and BlackRock LifePath Glide Paths

Other providers have emphasized the importance of maintaining growth assets as plan balances grow. Elevated equity stakes early in the glide path, when plan balances are smallest, might have less of an impact on a dollar-weighted basis than higher equity stakes as savers approach retirement. The managers behind John Hancock's two Lifetime series have cited this reasoning to support its moreaggressive posture in the years leading up to retirement. For instance, Neutral-rated John Hancock Multimanager Lifetime's 61% equity weighting five years from retirement is 8 percentage points more than the average peer, and its equity glide path has edged higher over the past few years. Larger equity stakes during working years can also allow savers to bounce back from selloffs like 2020's first quarter, as their longer time horizons afford the opportunity to make up for lost ground. Exhibit 27 details the series that take on the most equity risk at retirement.

Exhibit 27 Equity Allocation at Retirement



Yet this dynamic cuts both ways, especially as savers transition from accumulation to distribution. Stashing at least half of savers' nest eggs in equities at retirement invites serious risks that shouldn't be dismissed. There could also be differences between stated and revealed investor preferences. Despite T. Rowe Price's participant research efforts, for instance, the vintages closest to retirement saw notable outflows during March 2020's market turmoil. Heavier allocations to growth assets offer savers greater return potential, but savers must stay the course to reap the benefits, especially when markets get shaky.

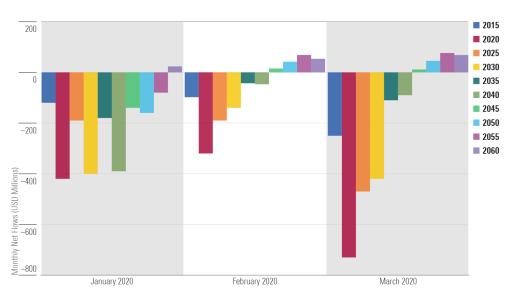


Exhibit 28 T. Rowe Price Retirement First-Quarter 2020 Net Flows

Going Abroad

Target-date allocators have long favored U.S. equities over their foreign counterparts. Providers often cite home bias to explain this posture: Domestic savers' liabilities are likely tied to domestic assets, and they get paid in U.S. dollars, which is particularly relevant during periods of inflation; international equities bring on currency, geopolitical, and corporate governance risks; and U.S. multinationals offer exposure to overseas markets. Yet this relative home bias has shrunken considerably over the past decade.

At year-end 2021, international equities made up 35% of the total equity exposure in the median glide path 40 years from retirement, up from just under one third 10 years prior. That relatively higher non-U.S. equity stake remains mostly intact throughout the current glide path. That wasn't the case 10 years earlier, though. At retirement, non-U.S. equities made up roughly 27% of total equity exposure in the 2011 median glide path, 7 percentage points less than today.

2021 2011

30

40

40

30

40

40

35

30

25

20

15

10

5

0

Exhibit 29 Non-U.S. Equity Weightings by Vintage

Target-date sponsors' growing non-U.S. exposure has been somewhat contrarian. At year-end 2011, the MSCI All-Country World Index counted 53.8% of its market value in non-U.S. equities. At year-end 2021, however, that number fell to less than 40%, a precipitous 14.7-percentage-point tumble, highlighting U.S. equity's dramatic outperformance versus their non-U.S. stocks in the intervening years. Indeed, the Russell 3000's 16.3% annualized gain lapped the MSCI ACWI ex-U.S.' 7.3%.

-Non-U.S. Equity -U.S. Equity

75

25

2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 202

Exhibit 30 MSCI All-Country World Index Regional Weighting

These two factors—sponsors scooping up international equities as the broader market has shifted toward U.S. stocks—explain the closing home-country-bias gap. The median series' roughly 27% non-U.S. equity stake as a portion of total stock assets at retirement 10 years ago was less than half the MSCI ACWI's. At year-end 2021, though, that spread was down to less than 5 percentage points (39.1% and 34.5%, respectively, for the MSCI ACWI and median glide path).

Two of the largest sponsors have grown their non-U.S. equity exposure of late. Vanguard Target Retirement has made significant alterations since the 2007-09 global financial crisis. In 2010, it bumped the U.S./non-U.S. split to 70/30 from 80/20, then again in 2015 to 60/40 after updating its capital market assumptions. Fidelity also adjusted its target non-U.S. stock allocation across its six target-date series in 2019. After researching and modeling the topic, Fidelity's allocators determined that additional broad ex-U.S. exposure would provide greater diversification. They also believed they could add value through a more robust set of exposures outside the United States. As such, management increased the proportion of non-U.S. equities to 40% from 30% of total equity for all vintages.

The recent changes to another prominent series, meanwhile, go against the trend. In April 2021, American Funds Target Date Retirement leaned further into U.S. equities in the vintages past retirement. In the portfolio 20 years after retirement, the target non-U.S. equity exposure relative to total equity fell to 25% from over 32%. Management touted internal participant research, which showed savers still preferred domestic equities, and modeling data to support the changes. Specifically, management targets a smoother ride in retirement, and its research showed that, over long stretches, U.S. equities

had less volatility, though it also showed that non-U.S. stocks provided better diversification relative to the hefty bond sleeves that take hold in the postretirement vintages.

How Volatile Is Your Target-Date Strategy, Really?

The most common method to gauge the amount of risk in a target-date series is looking at its glide path. The glide path shows how much a series invests in stocks at every point along its march to the target-retirement date and beyond. Since stocks are the biggest driver of a target-date strategy's volatility, comparing glide paths can give investors a quick sense of whether they should expect a series to be more or less volatile than peers. While it is a fine rule of thumb, not all stocks and bonds behave similarly. Indeed, simply looking at the allocation to stocks with no other context may understate a series' equitylike risk; in rare instances, it may also overestimate that risk.

To determine how much equitylike risk a target-date strategy has, we looked at the trailing three-year global equity beta of each target-date vintage's mutual fund's cheapest share class and compared it with its glide-path stock allocation. Beta is a measurement of how sensitive a fund, or any investment, was to changes in the reference benchmark—in this case, the MSCI All Country World Index. For example, a beta of 1.0 indicates that a fund mostly mirrored the benchmark's broad performance pattern, while a 0.5 beta shows that it captured about half the benchmark's upside and downside. It is never a perfect relationship since there are other factors, like security selection and asset allocation, that create excess returns not explained by the beta; these unexplained returns are commonly referred to as *alpha*. But for multi-asset funds, like target dates, beta gives a better sense of how much the portfolio is impacted by the changes in global equity markets than the allocation to stocks alone. Exhibit 31 shows the average equity glide path and three-year beta for each vintage across the target-date series to which Morningstar has assigned forward-looking Analyst Ratings.

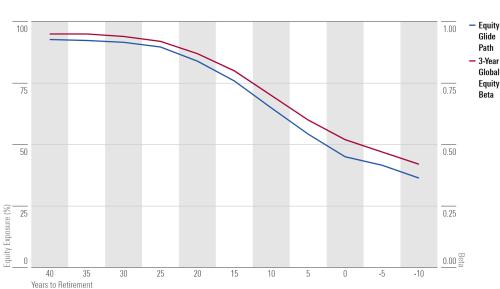


Exhibit 31 Average Glide Path and Equity Beta

Across the glide path, the average equity beta is higher than the average allocation to stocks. There are a couple of explanations for this. As discussed in the prior section, target-date series have had a notable, albeit shrinking, home-country bias, and over the last three years, U.S. stocks have been more volatile than non-U.S. stocks. Fixed-income portfolios also play a part. Target-date allocators often layer in exposure to below-investment-grade bonds, which can behave more like stocks during periods of extreme volatility, like the dramatic selloff in the first quarter of 2020. Exhibit 32 shows the three-year global equity beta of major stock and bond asset classes over the past three years.

Exhibit 32 Global Equity Beta of Major Asset Classes					
Index	3-Year Global Equity Beta				
Morningstar US Market	1.05				
Morningstar Developed Markets ex-North America	0.96				
Morningstar Emerging Markets	0.96				
Morningstar US High Yield Bond	0.45				
Morningstar US Core Bond	0.01				

Source: Morningstar Direct. Data as of Dec. 31, 2021.

Some allocators have done a better job at keeping their portfolios' realized global equity beta in line with their glide path. Exhibit 33 shows the average difference across the glide path of the global equity beta's implied equity allocation minus the glide path's strategic equity target.

Series Difference % MassMutual RetireSMART by JPM 10.00 Voya Solution 9.33 JPMorgan SmartRetirement 8.10 Principal LifeTime 7.98 John Hancock Multimanager Lifetime 7.80 BlackRock LifePath Dynamic 6.46 JPMorgan SmartRetirement Blend 6.45 TIAA-CREF Lifecycle 6.18 Schwab Target 5.53 John Hancock Multi-Index Preservation 5.29 Natixis Sustainable Future 5.27 John Hancock Multi-Index Lifetime 4.95 Fidelity Advisor Freedom 4.34 Fidelity Freedom 4.19 American Century One Choice 4.16 Dimensional Target Date Retirement Income 4.15 Principal Lifetime Hybrid 3.70 2.91 State Street Target Retirement Vanguard Target Retirement 2.77 MFS Lifetime 2.56 TIAA-CREF Lifecycle Index 2.08 Schwab Target Index 2.07 MassMutual Select TRP Retirement 1.28 BlackRock LifePath Index 1.13 T. Rowe Price Retirement 1.02 Fidelity Freedom Index 0.77 Pimco RealPath Blend 0.26 -2.71 American Funds Target Date Retirement

 $\textbf{Exhibit 33} \ \ \text{Average Difference Between Equity Beta and Equity Glide Path}$

In general, target-date series that use passive index funds as their underlying holdings tend to stay the closest to their strategic targets. These series' equity portfolios tend to offer straightforward exposure to broad asset classes and not take on much credit risk in their fixed-income portfolios. Exhibit 34 shows Vanguard Target Retirement's glide path and the three-year betas of its vintages.

-5%

10

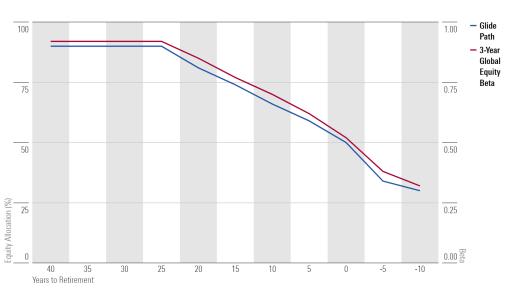


Exhibit 34 Vanguard Target Retirement

There is very little difference between the implied exposure to global stocks and the series' target throughout the glide path. The series home bias (60% of the equity portfolio throughout the glide path) explains its slightly higher beta exposure, but the difference isn't significant. Fidelity's, BlackRock's, and Schwab's index-based target-date series have similarly narrow differences on average. Given the slight differences, shareholders in these series are unlikely to be caught off guard.

That may not be the case in series that use actively managed underlying strategies and/or make some tactical moves in their portfolios. The MassMutual RetireSmart by JPMorgan and the JPMorgan SmartRetirement series have large spreads between global equity beta and their strategic glide path. Both follow JPMorgan's glide path and tactical allocation views, though MassMutual does its own manager selection and implements the tactical tilts at its own discretion, which drives bigger differences. Exhibit 35 shows the JPMorgan SmartRetirement series glide path and its vintages' three-year betas.

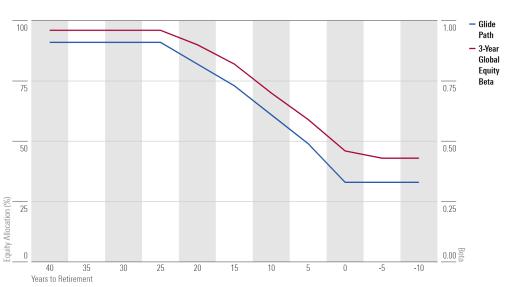


Exhibit 35 JPMorgan SmartRetirement

The difference means that, in general, the series should be expected to capture more of the global equity market's upside and downside than its glide path would suggest. For risk-aware investors, particularly those near retirement, this might present an unwelcome surprise during market selloffs. Being able to stick with a target-date series over long periods is the key to reaping its benefits, and higher than expected volatility could make that harder.

One notable outlier among the target-date series that Morningstar analysts cover is American Funds Target Date Retirement series. It is the only series that receives a Morningstar Analyst Rating that had lower global equity beta across its glide path than its strategic equity allocation would suggest. Exhibit 36 shows its glide path and those vintages' three-year betas.

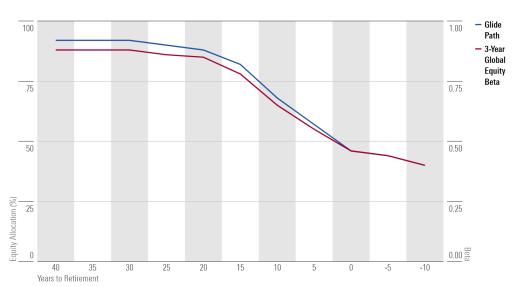


Exhibit 36 American Funds Target Date Retirement

The American Funds series leans more into large- and mega-cap stocks than peers, which has helped shape its slightly more restrained performance profile. Its bond funds are also on the conservative side and don't take as much credit risk as peers, so there haven't been any ugly surprises from the bond portfolio during recent equity market selloffs. The series' consistently strong returns prove that target-date funds don't necessarily have to take on additional equitylike risk to outperform.

More Than the Glide Path

Target-date series' glide paths provide a good snapshot of the equity allocations from the start of an investor's retirement journey through the end, but they don't capture all the risks in the series. By reviewing the vintages' realized global equity beta, investors can get a better sense of how much risk a series takes over time, and whether they can tolerate it.

To vs. Through Debate

Choosing a target-date strategy has historically meant picking between two options: series that follow a "to" approach that lock in equity allocations at the retirement date or a "through" approach that continues to lower the stock weightings for another 10 to 20 years after retirement.

It is a common belief that "to" series are most appropriate for investors who plan to withdraw their money when they enter retirement and "through" series are best for those who plan to keep their money in the account. However, since most investors access target-date strategies through workplace retirement plans, which usually only offer one option, investors often don't get to select the glide path that best fits their circumstances.

Most target-date assets are currently in series that follow a "through" glide path. Vanguard, Fidelity, and T. Rowe Price, which make up about 62% of target-date market share, use this approach, explaining its dominant position.

In practice, there doesn't appear to be a large difference in how investors use the different glide paths. As of the end of 2021, the retirement, 2010, 2015, and 2020 vintages of "through" series had about \$175 billion in assets, or roughly 14% of those series' overall mutual fund assets. In "to" series, approximately 11% of those series' assets were in the retirement vintage. So roughly the same percentage of assets are sticking around after retirement.

The Differences Are Largest at Retirement and in Retirement

The differing glide paths can lead to much different outcomes for investors near their target-retirement date and those who stick around for years after. Exhibit 37 shows the average allocation to stocks along the glide path for both approaches.



Exhibit 37 To vs. Through Glide Path

Source: Morningstar Direct. Data as of Dec. 31, 2021.

The widest gap between the two glide paths comes as investors approach the pivotal target retirement date. Account balances are generally at their highest and, arguably, most vulnerable since the goal switches from growing assets to living off them. Series with a "through" approach tend to hold more stocks at the retirement date because they expect to continue winding down that exposure in retirement. At retirement, for example, the average "through" series holds 46% in stocks versus just 33%

for the average "to" series. That nearly 13-percentage-point difference is where the two diverge the most. During extreme periods of volatility, this can lead to markedly different performance.

In 2020's first quarter, for instance, the median 2020 "through" vintage lost 10.7% versus 7.6% for its "to" counterpart. Exhibit 38 shows the target equity allocation at retirement and the performance of the five largest "through" and "to" series during the selloff.

Glide Path Type	Series	Equity Allocation at Retirement (%)	Return Q1 2020 (%)
Through	Vanguard Target Retirement	50	-10.74
	Fidelity Freedom	52	-12.34
	American Funds Target Date Retirement	46	-8.85
	T. Rowe Price Retirement	55	-14.21
	Fidelity Freedom Index	52	-10.06
	Median	52	-10.74
То	BlackRock LifePath Index	40	-7.59
	American Century One Choice	45	-10.15
	JPMorgan SmartRetirement	31	-9.40
	Voya Index Solution	35	-5.22
	USAA Target Retirement	35	-7.60
	Median	35	-7.60

Source: Morningstar Direct. Data as of Dec. 31, 2021.

For the most part, the series performed in line with their stock exposure. Those with higher allocations suffered steeper drawdowns; American Funds was notably resilient thanks to its durable bond portfolio, preference for larger, more stable companies, and relatively higher allocation to cash than peers. For investors planning to retire in 2020, seeing your savings decline by 10% can understandably be tough to swallow. For context, an investor with \$1 million saved for retirement would have lost about \$100,000 during that period. Steep drops like this can make it harder for investors to stick with an investment strategy. Indeed, selling out of your target-date strategy during March 2020's drawdown would have meant missing out on the market rebound.

The lighter equity allocations at retirement that come with the "to" approach are better fits for investors with lighter risk appetites. Conversely, those who have iron stomachs are better served by the more stock-heavy "through" options.

Yet this performance pattern should flip the longer an investor sticks with a target-date strategy in retirement. Since "through" series' keep lowering stocks further into retirement, the "to" series become the more stock-heavy options later. From 15 to 30 years after retirement, the average "through" series holds 3 to 7 percentage points less in stocks than its counterparts.

Innovations

Stepping Into the Future

The target-date universe is highly competitive. Providers are always looking to stand out in ways they believe will better serve investors. In 2022, providers are seeking to give investors more options, improve investor withdrawal practices, and alter fixed-income portfolios. Below is a roundup of some recent developments, some of which are unique in the industry.

Glide Paths Are Getting Options, and That's a Good Thing

In 2021, Vanguard, which has a "through" glide path, may have paved the way for an end to the one-size-fits-all option. In September, it allowed investors in the CIT versions of its target-date series to optinto an alternative glide path that locks in the amount of stocks at 50% at the retirement date; the default glide path continues to lower stocks to 30% for 10 years after the retirement date.

Vanguard designed this alternative for investors with ample assets, either in their defined-contribution account or from other sources like pension funds or family wealth. The key assumption is the more abundant an investors' wealth, the more capacity to take on risk in their target-date strategy. Risk tolerance is key to picking the right glide path for individuals.

Vanguard started with the CIT version of its series, rather than the mutual funds, because CITs allow the firm to have more control over the educational content delivered to investors, with the goal of helping them make more-informed decisions. The CITs are only available through retirement plans, providing a captive audience for Vanguard. The option should roll out to mutual fund shareholders in defined-contribution accounts in the coming years.

If successful, other target-date series will likely follow suit.

A Retirement Spending Program

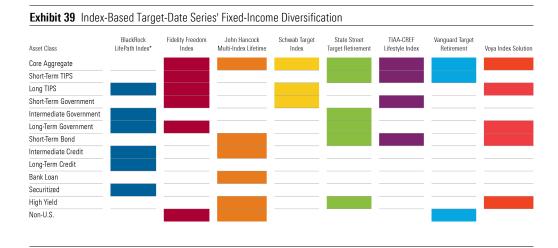
In March 2022, J.P. Morgan will implement the SmartSpending program across its four target-date series. The program was first launched in 2016 through a dedicated fund, JPMorgan SmartSpending 2015 JTQDX. The approach is quite distinctive: The team tries to manage investors' discretionary spending in retirement by advising them at the start of each year as to what percentage of their assets in the fund they should spend down by selling shares. The goal has been to fund a 4%-7% annual withdrawal rate. And its equity weighting has ranged from roughly 18.5% to 38%. Retirement plans that do not wish to take part in the SmartSpending program can shift participants into the retirement-income

funds. The equity weighting for each target-date series at retirement will move to 40% from 33% to match the strategic weight of the SmartSpending program. To counterbalance the expected rise in volatility from that change, the team is trimming exposure to riskier high-yield bonds in retirement.

This unique approach could benefit investors looking to better manage their spending in retirement. The SmartSpending 2015 fund has been able to fund its recommended payouts since its 2016 inception. Since target-date series are designed as low-maintenance options, it is fair to wonder how many shareholders will actively follow the spending recommendations.

Fine-Tuning Fixed-Income Exposure

Faced with historically low yields, surging inflation, and potential interest-rate hikes in the near future, some target-date providers are tweaking their fixed-income portfolios. Even index-based target-date series are looking to differentiate their fixed-income exposure beyond tracking the broad Bloomberg U.S. Aggregate Bond Index. BlackRock is breaking apart the core bond positioning of its LifePath Index series, for example. The series holds an iShares fund that tracks the Aggregate Index and another that tracks U.S. Treasury Inflation-Protected Securities. The firm is ditching the former for separate, narrower funds that track long-term government bonds, intermediate-term government bonds, long-term corporate bonds, intermediate-term corporate bonds, and securitized debt. The team will vary the weightings of these five funds (which have not been disclosed yet) relative to each other along the glide path as it seeks to optimize the bond exposure for investors at various stages. (The team will not, however, use these vehicles to tactically allocate between bond market segments as it doesn't make tactical moves in this series.) It will be the only index-based target-date series that does not include a fund tracking the Aggregate Index at any point across the glide path. Exhibit 39 illustrates the specific fixed-income passive funds held by a few index-based target-date series.



Source: Morningstar Direct and BlackRock. Data as of Dec. 31, 2021. *Illustrates announced changes that have not been implemented.

Fidelity, meanwhile, began boosting its target-date series' allocations to TIPS in 2021's third quarter. It will roughly double each series' TIPS weighting from the target retirement date through each series'

income fund 20 years later. Fidelity expects to complete the transition in 2022's third quarter. Investors nearing and at retirement will have more exposure to longer-term TIPS, but over time, that exposure declines in favor of shorter-dated TIPS, which are less sensitive to interest-rate movements. The firm is also initiating a modest non-U.S. bond weighting (1% to 5% of assets depending on the point in the glide path) and adding to long-term U.S. Treasuries to increase diversification. To make room for these increases, the firm is trimming its stake in U.S. investment-grade bonds and particularly short-term debt. The series could end up taking on more interest-rate risk, but the resulting increase in diversification could offset potential higher volatility.

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