

Target Date Funds

Fiduciary Review

2024



CARSON

Michael Barczak, CFA
Director – Retirement Plan Investments

Fiduciary Considerations

Target Date funds account for the majority of new qualified institutional retirement plan assets

- TDFs garnered 79.5% of quarterly net flows as of 3/31/24*
- 96% of DC plans offered TDF funds as of year end 2023**
- Among plans choosing a qualified default investment alternative (QDIA) for participants, 98% utilize a TDF as the QDIA**

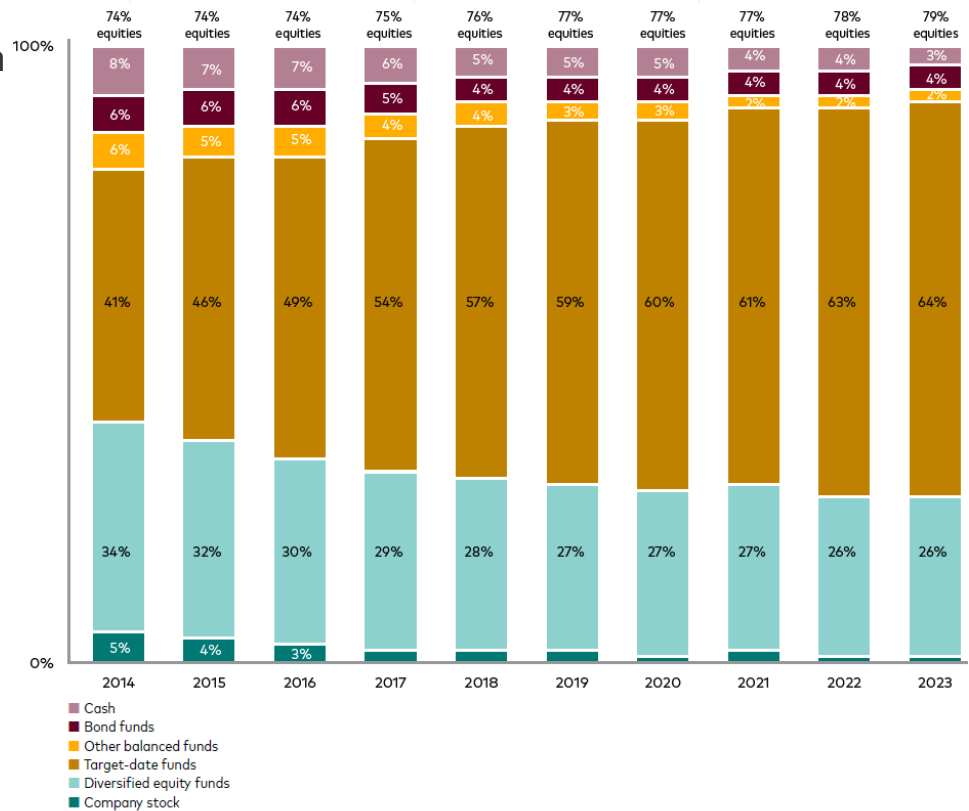
Litigation against plan sponsors typically includes the following complaints:

- Improper investment asset allocation
- Poor performance
- High fees
- Self dealing with a recordkeeper's proprietary products

DOL guidelines include:

- Establishing a sound process for selecting and monitoring TDFs, and showing consistent documentation of that process
- Periodically reviewing relative performance, and comparing the investment expense relative to other TDF options
- Understanding the TDF's glidepath and how it evolves over time

Plan Contribution Allocation Summary**



* Source: Callan DC Index 3/31/24

** Source: Vanguard's How America Saves 2024 Report



Considerations for your Fiduciary Process

DOL Consideration	Your Plan
<p>Form a process for selection and monitoring</p>	<p>Your Target Date Funds are regularly benchmarked against the applicable indexes and peer groups, as well as evaluated within Carson's scoring methodology</p>
<p>Understand the series' asset allocation and glidepath characteristics</p>	<p>Vanguard Target Retire Trust Plus has a through glidepath. The equity allocation begins at 90% for the youngest participants, is at 50% at retirement, and holds a 30% position 7 years after retirement</p>
<p>Benchmark the investment management fees</p>	<p>Expense ratios are 0.06% and are below the peer average investment management costs</p>
<p>Understand the series' building blocks and what options are available in the marketplace</p>	<p>The underlying portfolios are comprised of 0% active and 100% passive components, of which 100% are proprietary to Vanguard</p>
<p>Consistently document the monitoring process</p>	<p>Regular investment monitoring materials and annual due diligence reviews are saved in your advisor's client file</p>



TDF Series Overview

Name	Vanguard Target Retire Trust Plus
Inception Date	10/27/2003
Expense Range	0.055%
People	<ul style="list-style-type: none"> • Team of 4 portfolio managers handle day to day operations • Investment methodology and strategy is overseen by Vanguard's Strategic Asset Allocation Committee (SAAC) which is a team of 15 global investment leaders who meet quarterly to steer the policy allocations of Vanguard's multi-asset portfolios <ul style="list-style-type: none"> • 2 of the named PMs also are members of the SAAC
Glidepath Style	Moderate glidepath has an average equity allocation generally near that of the peer average across the glidepath
Building Blocks	Portfolios comprised of 5 underlying proprietary Vanguard index funds and cash equivalents



TDF Series Overview

This target-date series has all the features one would expect from Vanguard's deeply rooted investment culture. It features four low-cost, broadly diversified index funds to gain efficient exposure to global stocks and bonds. The Vanguard Target Retirement series is managed on a day-to-day basis by a team of 4 named portfolio managers and investment methodology and strategy is overseen by Vanguard's Strategic Asset Allocation Committee (SAAC) which is a team of 15 global investment leaders who meet quarterly to steer the policy allocations of Vanguard's multi-asset portfolios (2 of the named PMs also are members of the SAAC).

The team employs a straight forward, no frills approach to asset allocation. Market exposure (beta), low costs, and an intentional avoidance of sector, region, style, or asset class bets relative to the peer group average are the hallmarks of the strategy, and outperformance is generated incrementally over time. This ensures that while the strategy will likely never be the best performing in its peer group in any calendar year, it will also likely never be the worst either. Sub-asset class, style, and market cap positioning is determined by market weights due to using the total market indexes although some decision making is used in the US vs Intl equity split, but the team is thoughtful about what the global liquid market's characteristics are when they set those weights (weights are reviewed quarterly by the SAAC but don't change much).



TDF Series Overview

All portfolios in the series are constructed using a combination of the following 6 investments:

- Vanguard Total Stock Market Index
- Vanguard Total International Stock Index
- Vanguard Total Bond Market Index
- Vanguard Total International Bond Index
- Vanguard Short-Term Inflation-Protected Securities Index
- Cash

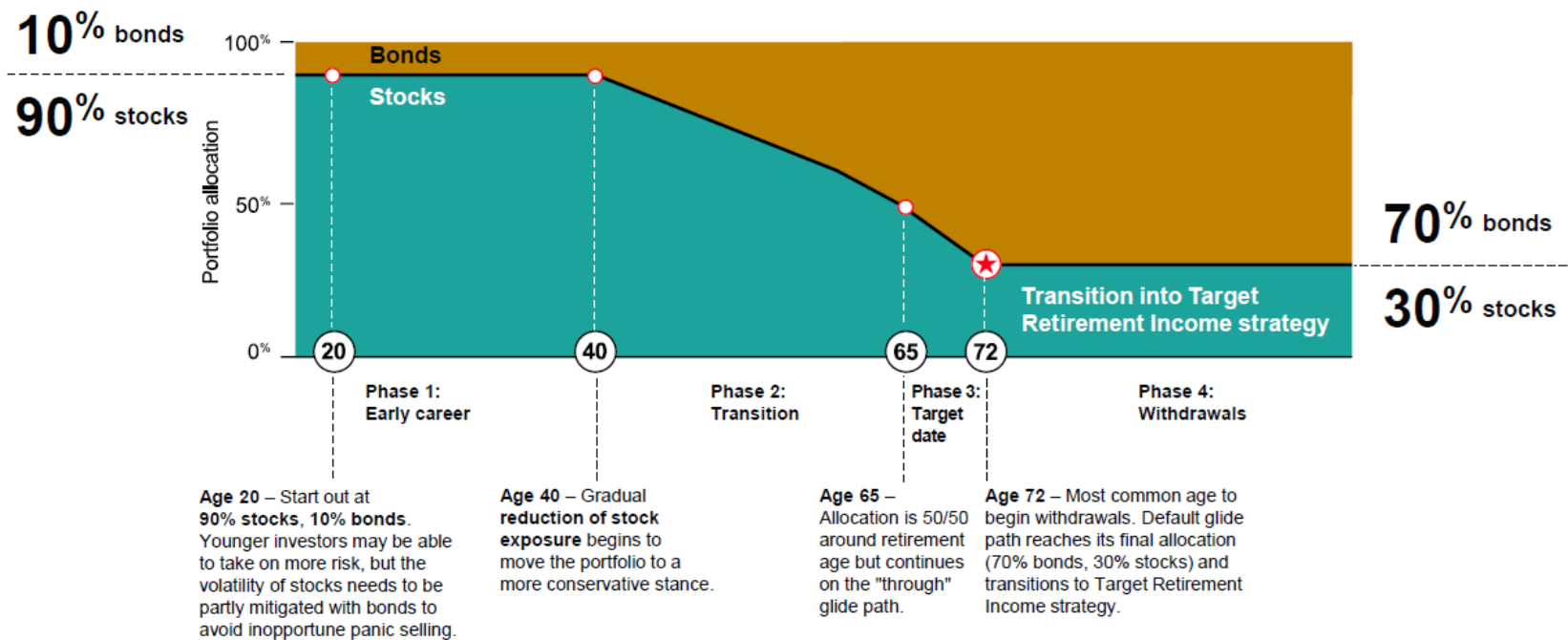
This allows each vintage in the series to provide investors with broadly diversified global equity and bond exposure in commensurate proportions relative to the target retirement date in question. The asset allocation begins at 90% equities and 10% fixed income/cash for the youngest participants, is roughly 50% equities and 50% fixed income/cash at retirement, and lands at 30% equities and 70% fixed income/cash for participants deeper into retirement as outlined on the below glidepath charts from Vanguard.



TDF Series Overview

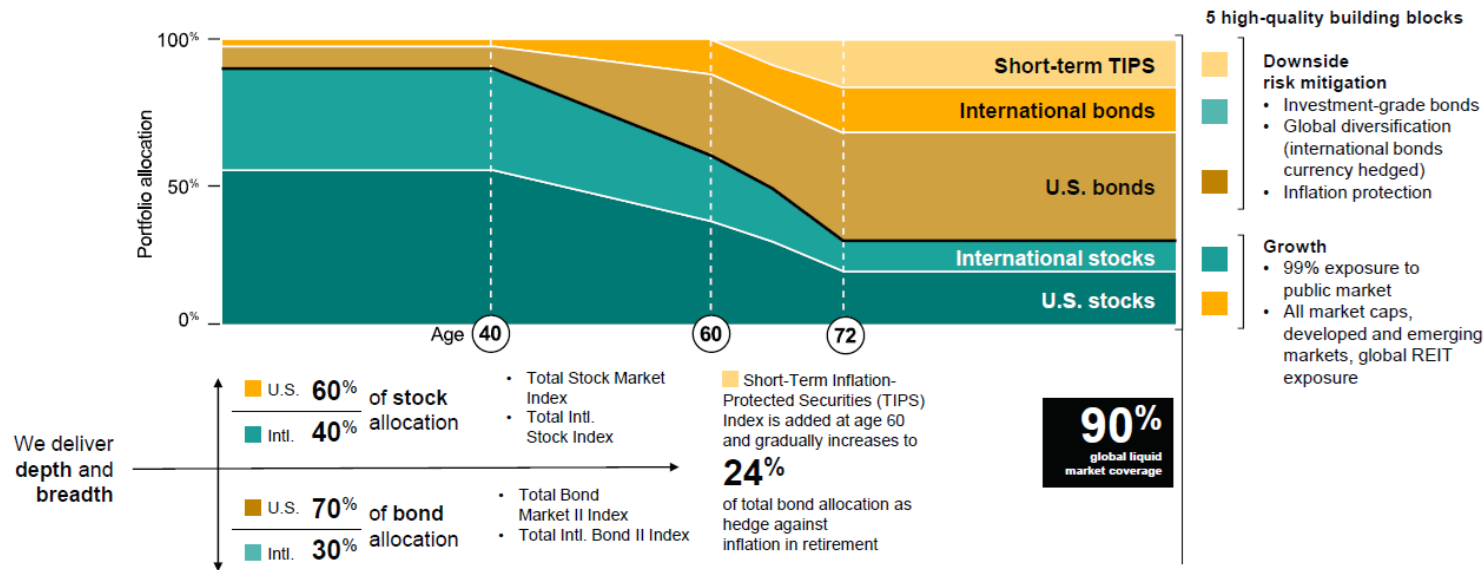
Balancing risk and return at every stage of the investor's life

Glide path determined by time-tested investment principles and behavioral insights



TDF Series Overview

A strategic asset allocation using high-quality building blocks



Long term performance across the glidepath continues to be in line with expectations as the series's low costs and passive beta exposure have been able to generate strong compound returns over multi-year to multi-decade time horizons typical of target date investors. Recent performance has also benefitted from the underlying portfolios being market capitalization weighted as large cap has outperformed small cap, growth has outperformed value, and US markets have outperformed international markets. As a passive strategy, the funds give up the potential for manager alpha (excess returns) due to security selection, but also avoid the pitfalls of negative alpha or value traps, resulting in a smoother relative return experience.



TDF Comparison Summary

TDF Series	Blackrock LifePath Index MF	Fidelity Freedom Index Instl Prem	Nuveen Lifecycle Index	Vanguard Target Retirement
Strategy Investment Expense	0.09%	0.08%	0.10%	0.055%*
Glidepath Risk	Moderate	Aggressive	Aggressive	Aggressive
Management Style	Passive	Passive	Passive	Passive
Average Underlying Fund Score	10.0	8.0	9.8	8.3
Number of Underlying Funds Scoring Watchlist or Below	0	3	0	1
3(38) Independent Manager Selection	No	No	No	No

Information is for illustrative purposes only and cannot be guaranteed now or in the future.
Source: Retirement Plan Advisory Group

*The expense ratio is for the Vanguard Target Retirement Trust CIT share class which is in the Sacramento plans' investments lineup. The Vanguard Target Retirement mutual fund share class is 0.08%.



TDF Matrix

TDF Series Name	Equity Glide Path (Approx.)		Roll Down Age		Approx. Equity Exposure at 65	Management Style	Investment Type	Equity Tactical (+/-)
	Starting Eq	Ending Eq	Begin	End				
Blackrock LifePath Index MF	99%	40%	35	65	40%	Passive	Proprietary Funds	0
Fidelity Freedom Index Instl Prem	90%	19%	46	83	52%	Passive	Proprietary Funds	0
Nuveen Lifecycle Index	95%	20%	22	97	50%	Passive	Proprietary Funds	0
Vanguard Target Retirement	90%	30%	45	72	49%	Passive	Proprietary Funds	0

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 Source: Retirement Plan Advisory Group



TDF Matrix Definitions

TDF Series Name: Name of the TDF series.

TDF Design Analysis: each series is placed into a risk category (aggressive, moderate, conservative) based on the Glidepath Risk Index.

Glidepath Risk Index: A glidepath describes the transition from equity assets to fixed income investments as an investor approaches retirement. The Glidepath Risk Index quantifies a glidepath's overall aggressiveness by considering four key factors, as explained below:

Equity exposure at retirement (age 65): Equity risk is responsible for a large portion of the volatility in broadly diversified portfolios. This represents 65 percent of the risk index weight.

Glidepath slope: a steeper glidepath that transitions away from equity assets to fixed income investments near retirement age limits the ability to recover large losses and is more susceptible to sequencing risk. Sequencing risk is the risk of experiencing negative returns in a period when withdrawals are being made. A steeper transition away from equity assets in this case would make it subsequently more difficult for the investor to recoup losses experienced during this time. This represents 25 percent of the index weight.

Equity at the start of the glidepath. This represents 2.5 percent of the index weight.

Equity at the end of the glidepath. This represents 7.5 percent of the risk index weight.

Starting Eq: A glidepath's beginning equity percentage.

Ending Eq: A glidepath's ending equity percentage, which may be at retirement age or past retirement age depending on the structure of the glidepath.

Begin Roll Down Age: The participant age corresponding to the glidepath's first decline in equity percentage

End Roll Down Age: The participant age corresponding to the time when the glidepath reaches its lowest and final equity percentage point.

Approx. Equity Exposure at 65: The glidepath's approximate equity percentage at participant age 65 (assumed retirement age).

Active/Passive: Describes the management style of the underlying funds within the TDF series. Active: Fund manager attempts to implement a particular strategy with the goal to outperform a benchmark. Passive: Fund manager implements a strategy to match, not outperform, the performance, of a particular benchmark, gross of fees.

Investment Type: Describes the structure of the underlying funds within the series.

Tactical Asset Allocation: A glidepath can be strategic or tactical. Every TDF has a policy glidepath, which specifies the asset allocations at given time and serves as the base glidepath to which the portfolios are rebalanced periodically. Managers implementing a strategic glidepath do

not actively deviate from these policy levels, although the policy weights can change slightly over time due to changes in long-term capital market expectations. Managers implementing a tactical glidepath can actively deviate from policy allocations to act on their short-term outlooks for certain asset classes in an attempt to outperform the policy allocation, in addition to changing the policy weights over time based on long-term capital market expectations. This metric describes the maximum percentage deviation from the glidepath the manager is allowed to implement.

Investment Types

Proprietary Funds: A TDF is labeled proprietary if the underlying funds comprising the TDF series are managed by the same investment company managing the TDF itself.

Sub-advised Proprietary Funds: The underlying funds comprising the TDF series are managed by a mix of internal managers and outside managers via various sub-advisory agreements.

Proprietary & Multi-manager Funds: The underlying funds comprising the TDF series are managed by both the same investment company managing the TDF itself and outside managers.

Open Architecture: The underlying funds are selected from the full range of investment managers with no proprietary mandate.

Disclaimers

Investments in target date funds are subject to the risks of their underlying funds. The investment risk of target date funds change over time as its asset allocation changes. Asset allocation and diversification do not protect against market loss. No target date fund is considered a complete retirement program and there is no guarantee any single fund will provide sufficient retirement income at or through retirement. Principal invested is not guaranteed at any time, including at or after the funds' target dates. The target date is typically the date in which the participant is expecting to retire.

Past performance does not guarantee future results.

Mutual funds are sold by prospectus only. Before investing, investors should carefully consider the investment objectives, risks, charges and expenses of a mutual fund. The fund prospectus provides this and other important information. Please contact your representative or the Company to obtain a prospectus. Please read the prospectus carefully before investing or sending money.

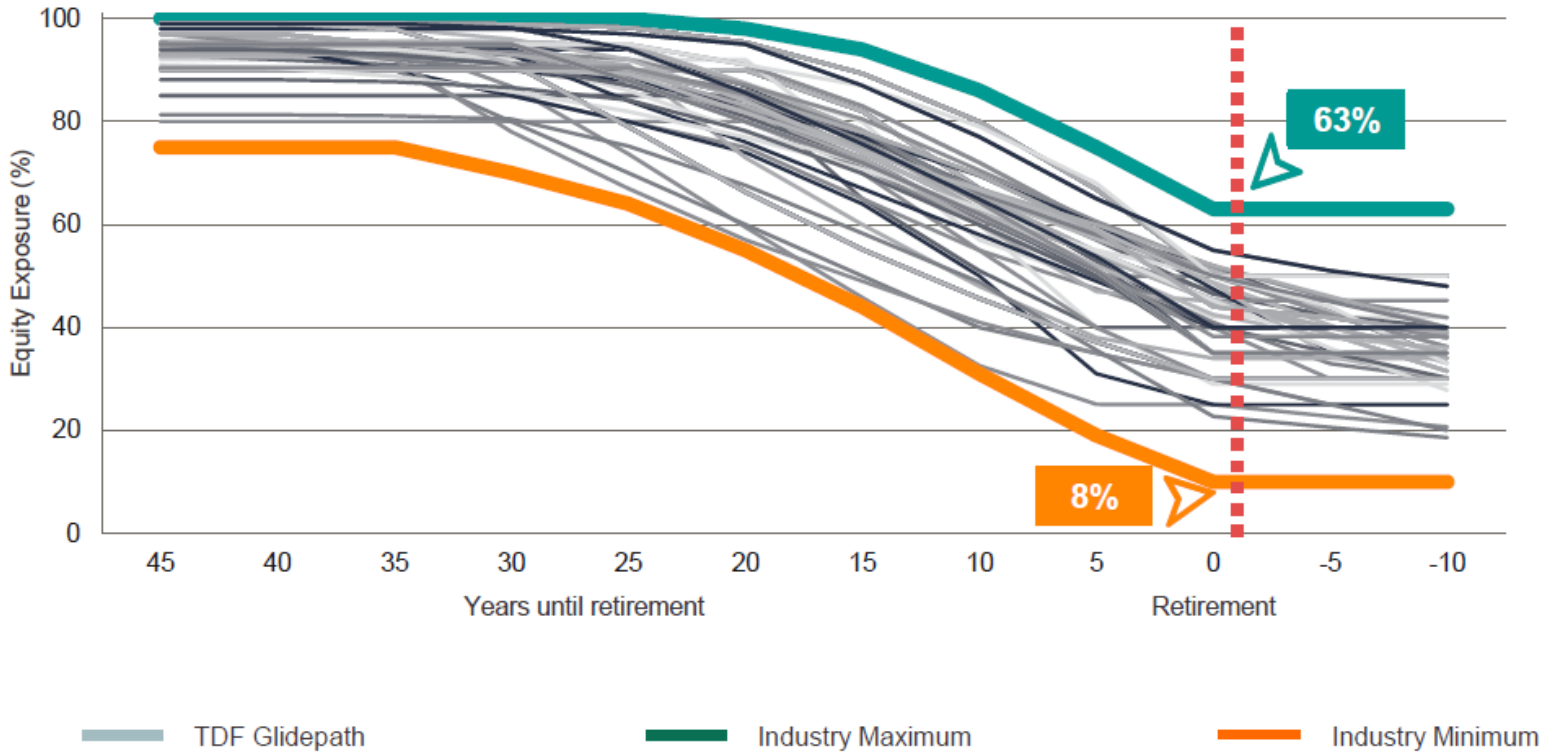
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Source: Retirement Plan Advisory Group



Differences Among Off the Shelf TDF Glidepaths

TDF Glidepath Universe



Data as of 12/31/2023.

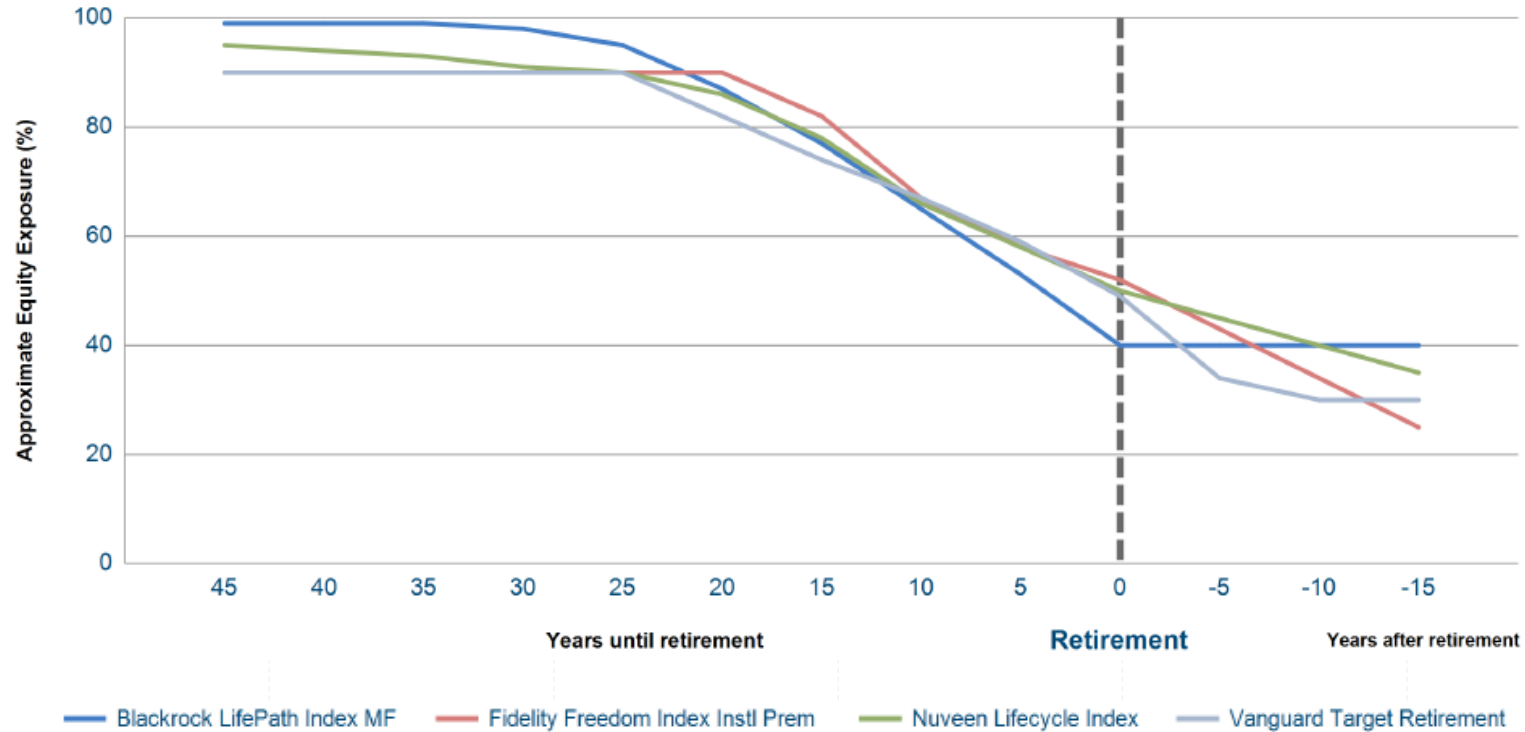
Source: RPAG System. The multiple lines represent various TDF glidepath options available within the marketplace.

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TDF Glidepath Comparison



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 Source: Retirement Plan Advisory Group



Asset Class Coverage

	Blackrock LifePath Index MF	Fidelity Freedom Index Instl Prem	Nuveen Lifecycle Index	Vanguard Target Retirement
US Large Equity	✓	✓	✓	*
US Mid Equity	*	✓	*	*
US Small Equity	✓	✓	*	*
International Equity	✓	✓	✓	✓
Emerging Market Equity	*		✓	*
US Fixed Income	✓	✓	✓	✓
US Tips	✓	✓	✓	✓
International Fixed Income		✓	*	✓
REITs	✓		*	*
Commodities				

Source: Morningstar

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Direct Asset Class Exposure (✓): Designated fund in the specified asset class as an underlying investment

Indirect Asset Class Exposure (*): Asset class exposure is captured in a fund that is not the direct asset class in question

No Asset Class Exposure (blank): No asset class coverage by any funds in the underlying investments



Style Box Summary

Vanguard Target Retirement Series: Underlying Funds

U.S. Large Cap Vanguard Total Stock Mkt Idx Inv	U.S. Mid/Small Cap	International Large Cap Equity Vanguard Total Intl Stock Index Inv
International Mid/Small Cap Equity	REITs	Commodities
Core Fixed Income Vanguard Total Bond Market II Idx Inv	Other Fixed Income Vanguard Total Intl Bd Idx Investor Vanguard Total Intl Bd II Idx Investor Vanguard Shrt-Term Infl-Prot Sec Idx Inv	Specialty/Other

Only ten funds will appear in each style box category for spacing purposes.

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Source: Retirement Plan Advisory Group



Target Date Performance

Portfolio/Benchmark	Q4 2024	YTD	1 year	3 years	5 years	10 years	Since inception	Inception date
Vanguard Target Retirement Income Trust Plus	-1.56%	6.64%	6.64%	1.01%	3.62%	4.25%	4.78%	6/22/2007
Target Retirement Income Composite Index	-1.53%	6.74%	6.74%	1.17%	3.86%	4.42%	—	—
<i>excess return</i>	-0.03%	-0.10%	-0.10%	-0.16%	-0.24%	-0.17%		
Vanguard Target Retirement 2020 Trust Plus	-1.58%	7.81%	7.81%	1.38%	4.81%	5.66%	6.95%	6/22/2007
Target Retirement 2020 Composite Index	-1.55%	7.91%	7.91%	1.58%	5.10%	5.86%	—	—
<i>excess return</i>	-0.03%	-0.10%	-0.10%	-0.20%	-0.29%	-0.20%		
Vanguard Target Retirement 2025 Trust Plus	-1.63%	9.50%	9.50%	1.99%	5.75%	6.43%	7.75%	6/28/2007
Target Retirement 2025 Composite Index	-1.59%	9.63%	9.63%	2.25%	6.09%	6.64%	—	—
<i>excess return</i>	-0.04%	-0.13%	-0.13%	-0.26%	-0.33%	-0.21%		
Vanguard Target Retirement 2030 Trust Plus	-1.68%	10.67%	10.67%	2.50%	6.52%	7.02%	8.41%	6/28/2007
Target Retirement 2030 Composite Index	-1.66%	10.82%	10.82%	2.79%	6.87%	7.24%	—	—
<i>excess return</i>	-0.02%	-0.15%	-0.15%	-0.28%	-0.35%	-0.22%		
Vanguard Target Retirement 2035 Trust Plus	-1.62%	11.76%	11.76%	3.03%	7.29%	7.61%	9.07%	6/28/2007
Target Retirement 2035 Composite Index	-1.62%	11.90%	11.90%	3.31%	7.63%	7.82%	—	—
<i>excess return</i>	0.00%	-0.15%	-0.15%	-0.27%	-0.34%	-0.21%		
Vanguard Target Retirement 2040 Trust Plus	-1.56%	12.84%	12.84%	3.54%	8.03%	8.17%	9.61%	6/28/2007
Target Retirement 2040 Composite Index	-1.58%	12.99%	12.99%	3.81%	8.37%	8.40%	—	—
<i>excess return</i>	0.02%	-0.14%	-0.14%	-0.28%	-0.33%	-0.23%		
Vanguard Target Retirement 2045 Trust Plus	-1.51%	13.86%	13.86%	4.02%	8.78%	8.64%	9.98%	6/28/2007
Target Retirement 2045 Composite Index	-1.54%	14.08%	14.08%	4.31%	9.12%	8.89%	—	—
<i>excess return</i>	0.03%	-0.22%	-0.22%	-0.29%	-0.34%	-0.24%		
Vanguard Target Retirement 2050 Trust Plus	-1.48%	14.68%	14.68%	4.42%	9.11%	8.80%	10.11%	6/28/2007
Target Retirement 2050 Composite Index	-1.50%	14.92%	14.92%	4.72%	9.45%	9.05%	—	—
<i>excess return</i>	0.03%	-0.24%	-0.24%	-0.29%	-0.34%	-0.25%		
Vanguard Target Retirement 2055 Trust Plus	-1.50%	14.67%	14.67%	4.42%	9.10%	8.79%	10.25%	10/5/2010
Target Retirement 2055 Composite Index	-1.50%	14.92%	14.92%	4.72%	9.45%	9.05%	—	—
<i>excess return</i>	0.01%	-0.25%	-0.25%	-0.30%	-0.35%	-0.26%		
Vanguard Target Retirement 2060 Trust Plus	-1.51%	14.66%	14.66%	4.43%	9.12%	8.81%	9.67%	3/1/2012
Target Retirement 2060 Composite Index	-1.50%	14.92%	14.92%	4.72%	9.45%	9.05%	—	—
<i>excess return</i>	0.00%	-0.27%	-0.27%	-0.29%	-0.33%	-0.25%		
Vanguard Target Retirement 2065 Trust Plus	-1.51%	14.65%	14.65%	4.43%	9.11%	—	9.88%	7/21/2017
Target Retirement 2065 Composite	-1.50%	14.92%	14.92%	4.72%	9.45%	9.08%	—	—
<i>excess return</i>	-0.01%	-0.28%	-0.28%	-0.28%	-0.34%			
Vanguard Target Retirement 2070 Trust Plus	-1.53%	14.61%	14.61%	—	—	—	7.65%	
Target Retirement 2070 Composite Index	-1.50%	14.92%	14.92%	4.72%	9.45%	9.08%	—	—
<i>excess return</i>	-0.03%	-0.31%	-0.31%					

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Performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted. The performance data quoted may not reflect the deduction of additional fees, if applicable. Additional fees would reduce the performance quoted.

*The expense ratio is for the Vanguard Target Retirement Trust Plus CIT share class which is in the Sacramento plans' investment lineup. The Vanguard Target Retirement mutual fund share class is 0.08%.

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Sources: Vanguard, as of December 31, 2024.

Appendix

Target Retirement Funds and Trusts 2Q 2024 update

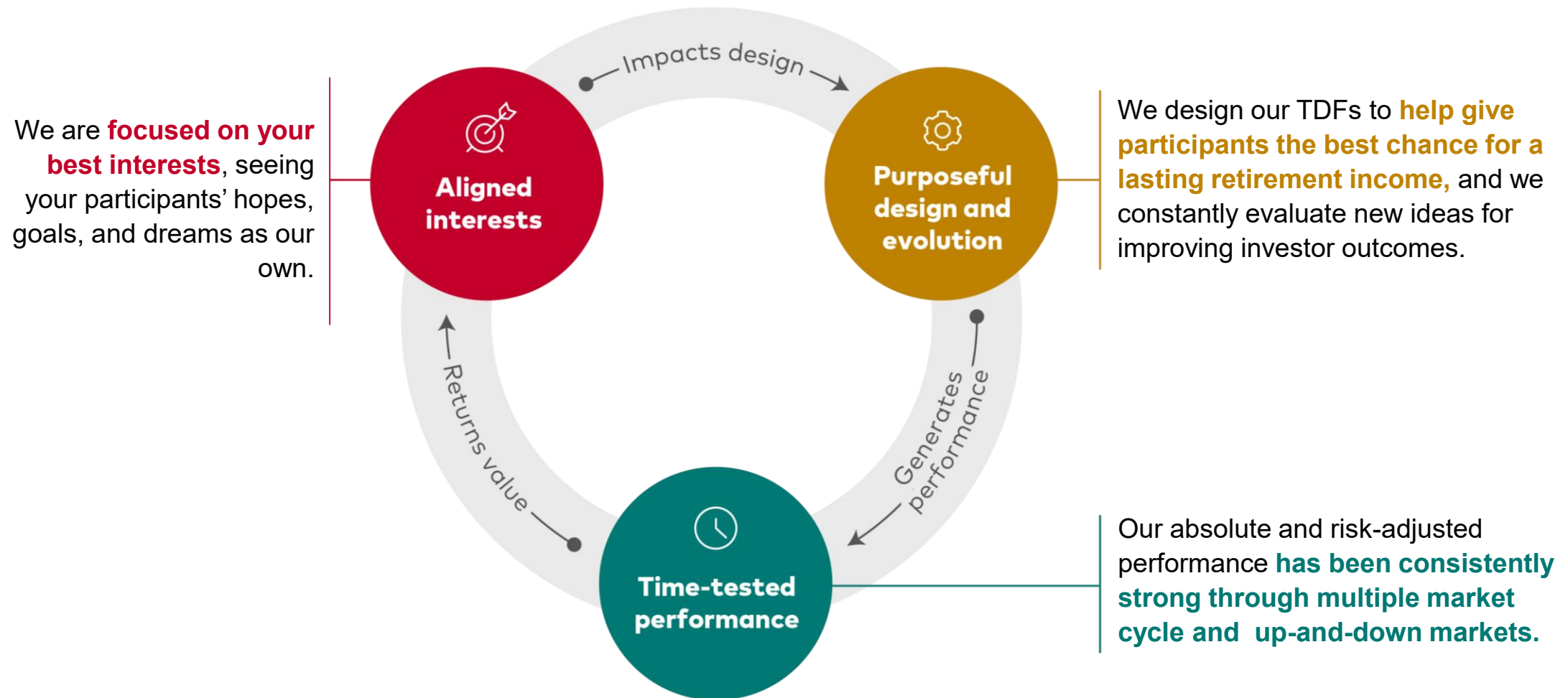


Agenda

- Vanguard's strategic differentiators
- TDF industry and market overview
- Performance and attribution overview
- Notable updates
- Oversight and management
- Appendix: Detailed performance

Vanguard's strategic differentiators

Our key TDF components that power participant success

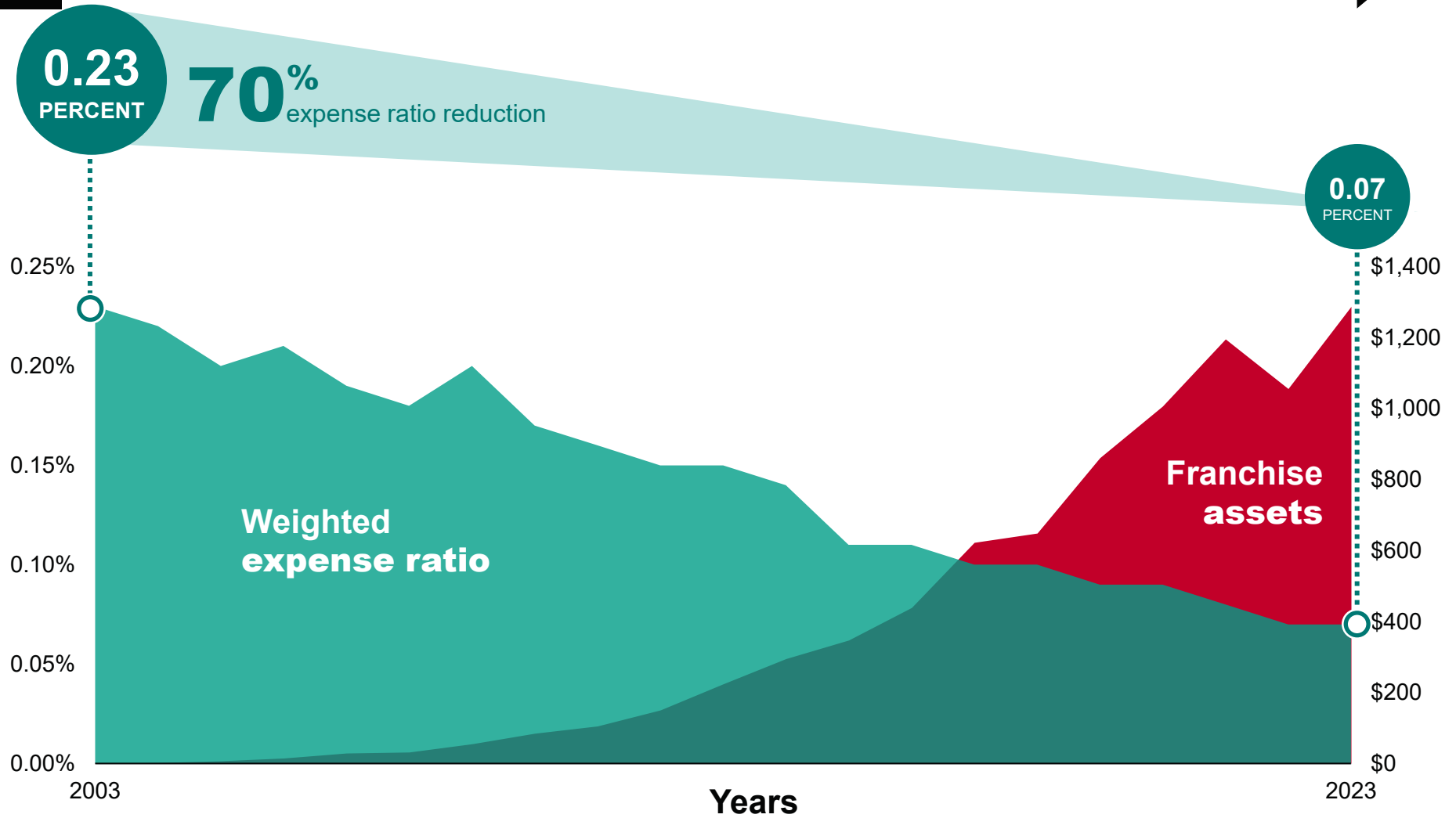




How we return value to you and your participants

Lowering costs is half the equation of returning value, and the other half is reinvesting in the business.

1 WE LOWER COSTS



2 WE REINVEST IN:

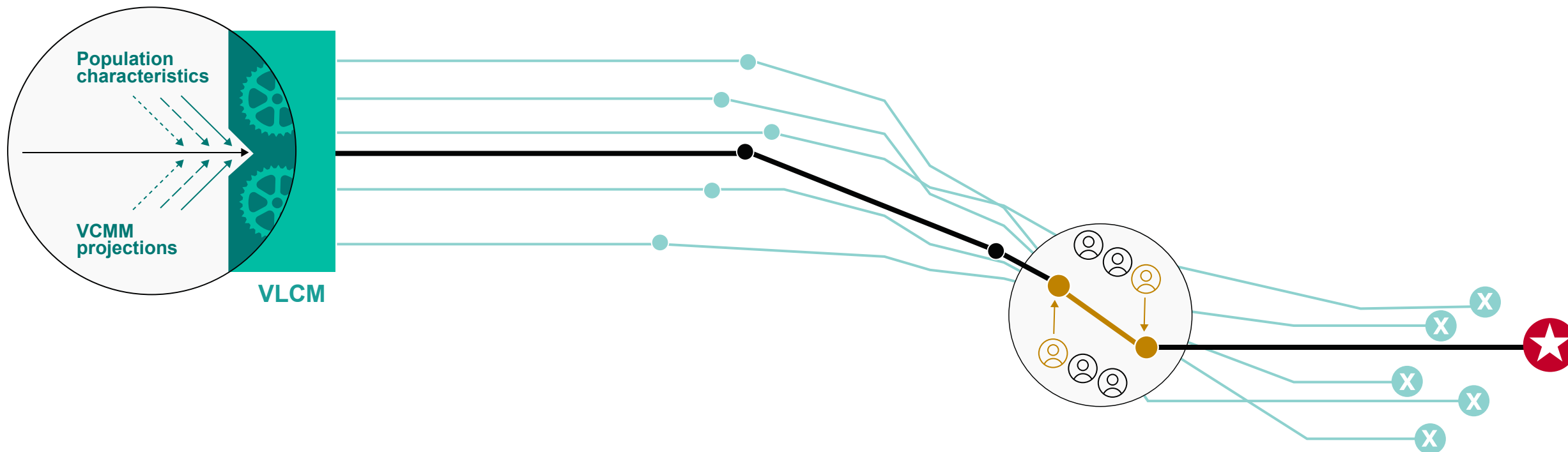
- Products
 - Services
 - Processes
- ... ultimately benefiting participants

Source: Vanguard data from December 31, 2003, to December 31, 2023. Franchise assets include Vanguard Target Retirement Funds and Trusts.





A glide path dedicated to improving investor outcomes



Inputs

- Participant population characteristics
- Vanguard Capital Markets Model® (VCMM) asset-class return projections

Constantly evaluated

Due diligence through constant analysis of existing glide path against thousands of simulated glide paths through our Vanguard Life-Cycle Investing Model (VLCM)

Designed for the real world

Practical considerations and observed participant behavior taken into account to meet the needs of real-world TDF investors

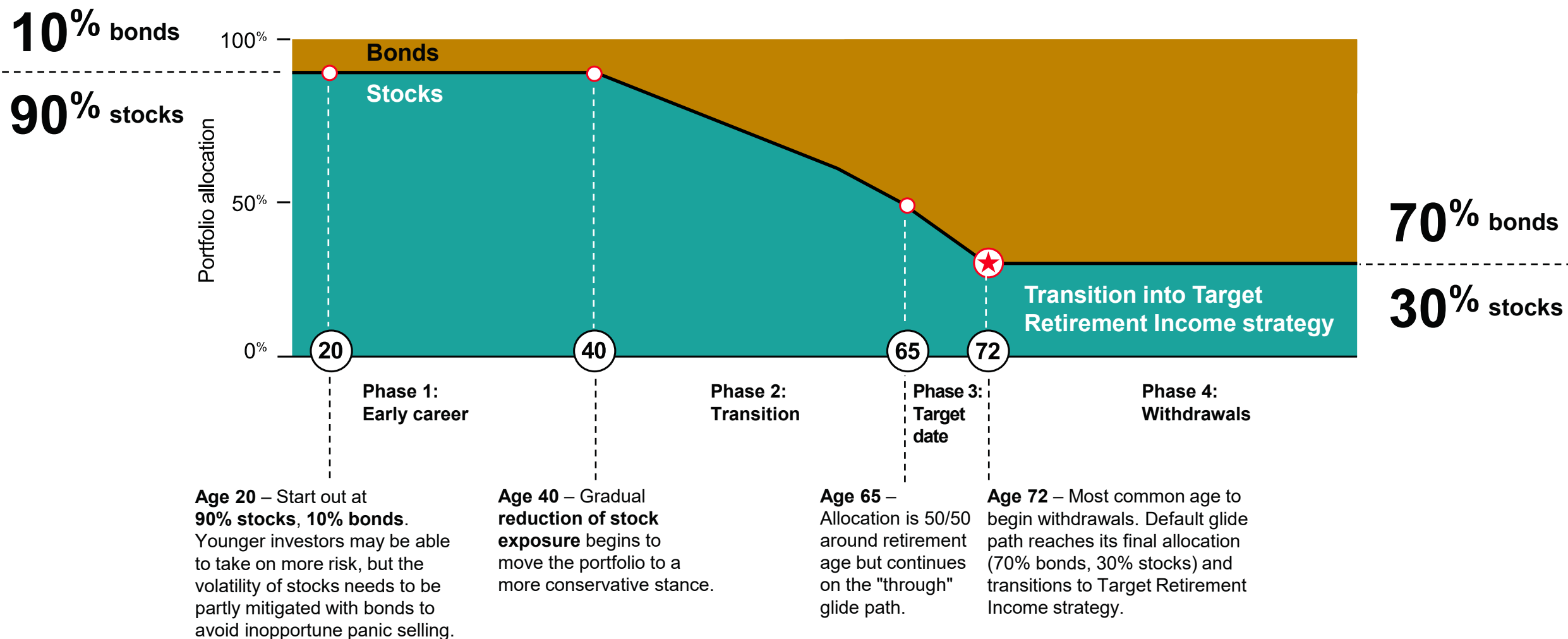
Outputs

- Retirement income sufficiency
- Wealth accumulation
- Portfolio volatility
- Maximum drawdown
- Probability of positive TDF balance at ages 85 and 95

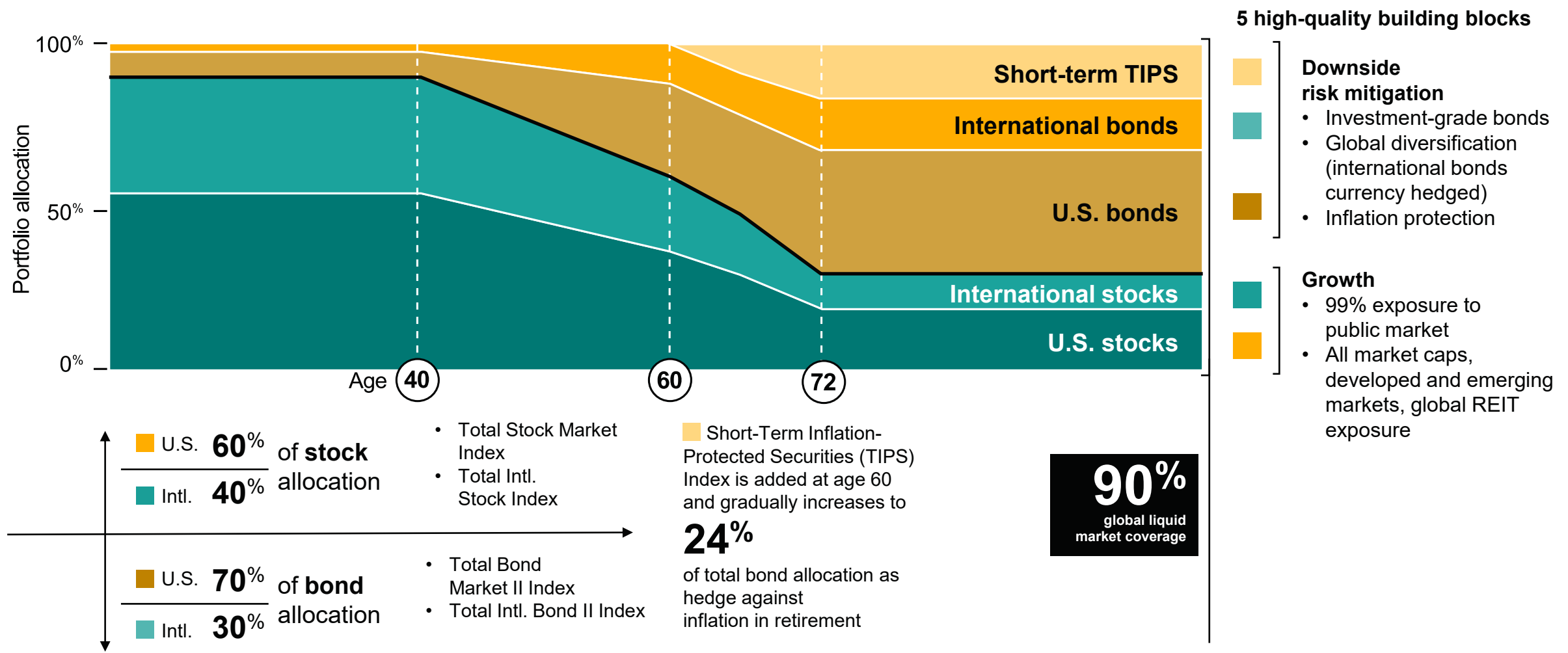


Balancing risk and return at every stage of the investor's life

Glide path determined by time-tested investment principles and behavioral insights



A strategic asset allocation using high-quality building blocks



Sources: FactSet, Fidelity, BlackRock. Stock market measured by FactSet data derived from MSCI US Broad Market Free Float and MSCI ACWI ex USA IMI Indexes. Bond market measured by FactSet data derived from Bloomberg Barclays Global Aggregate ex-USD, U.S. Aggregate Float Adjusted, Global High Yield, and EM Hard Currency Aggregate indexes. Commodities market measured by FactSet data. Data as of December 31, 2023.

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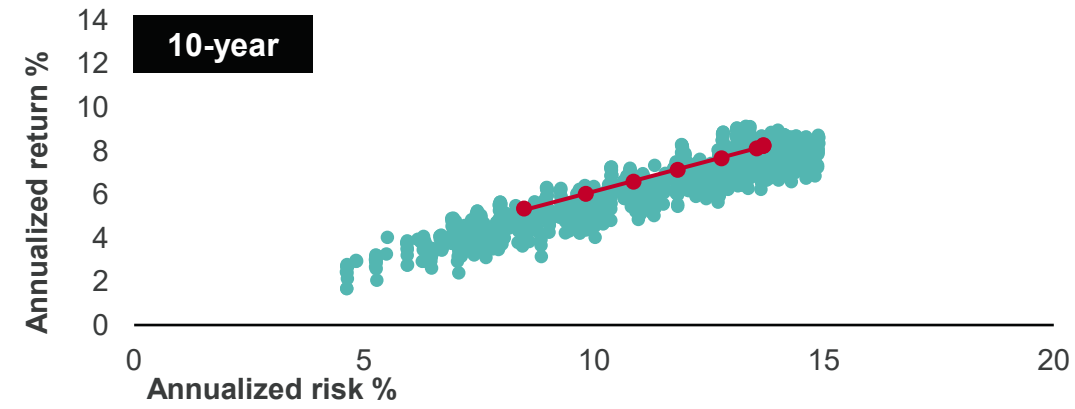
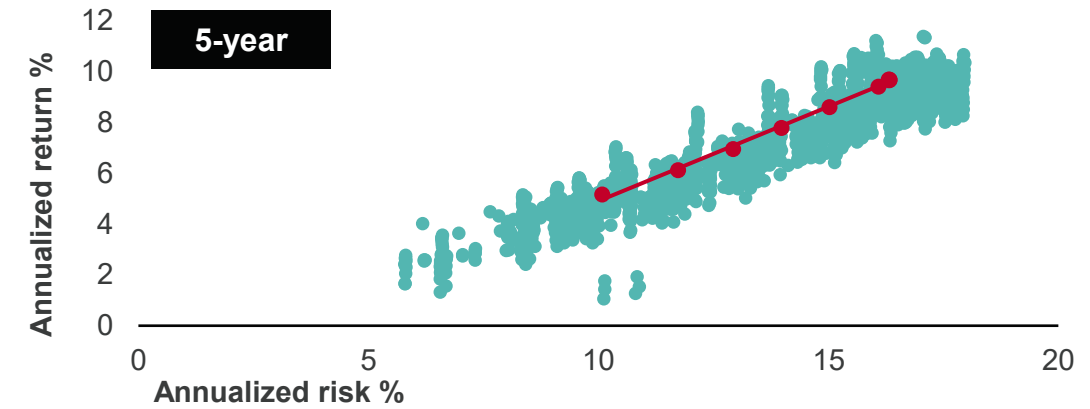
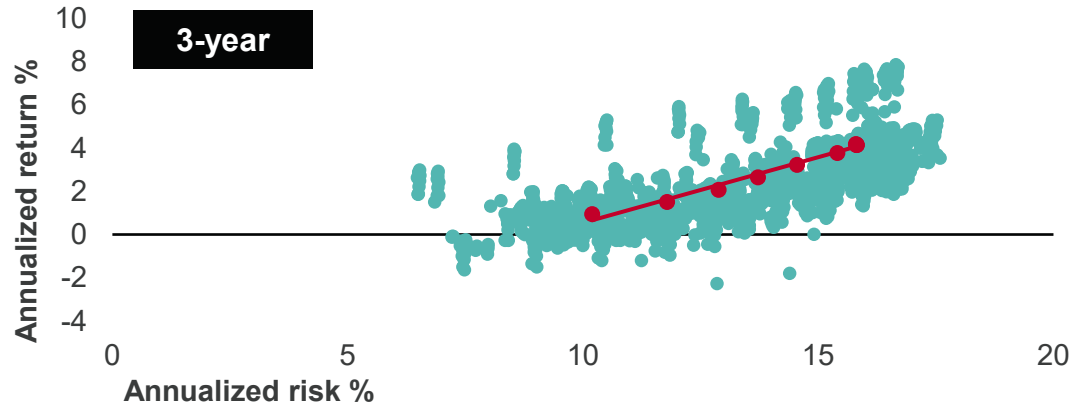


Time-tested performance

A history of consistently strong risk-adjusted performance

Investors may be in TDFs for decades. Consistent performance across all market environments is critical.

● TDF peers in Morningstar universe ● Vanguard Target Retirement Funds



Standard deviation was used for annualized risk. Results will vary for other time periods. All funds in the Morningstar peer group with a minimum 3-, 5-, or 10-year history, respectively, were included in the comparison. There may be other material differences between products that must be considered prior to investing. **Note that the competitive performance data shown represent past performance, which is not a guarantee of future results, and that all investments are subject to risks. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For the most recent performance, visit our website at [vanguard.com/performance](https://www.vanguard.com/performance).**

Sources: Vanguard and Morningstar, Inc., as of June 30, 2024. Vanguard Investor Shares highlighted.

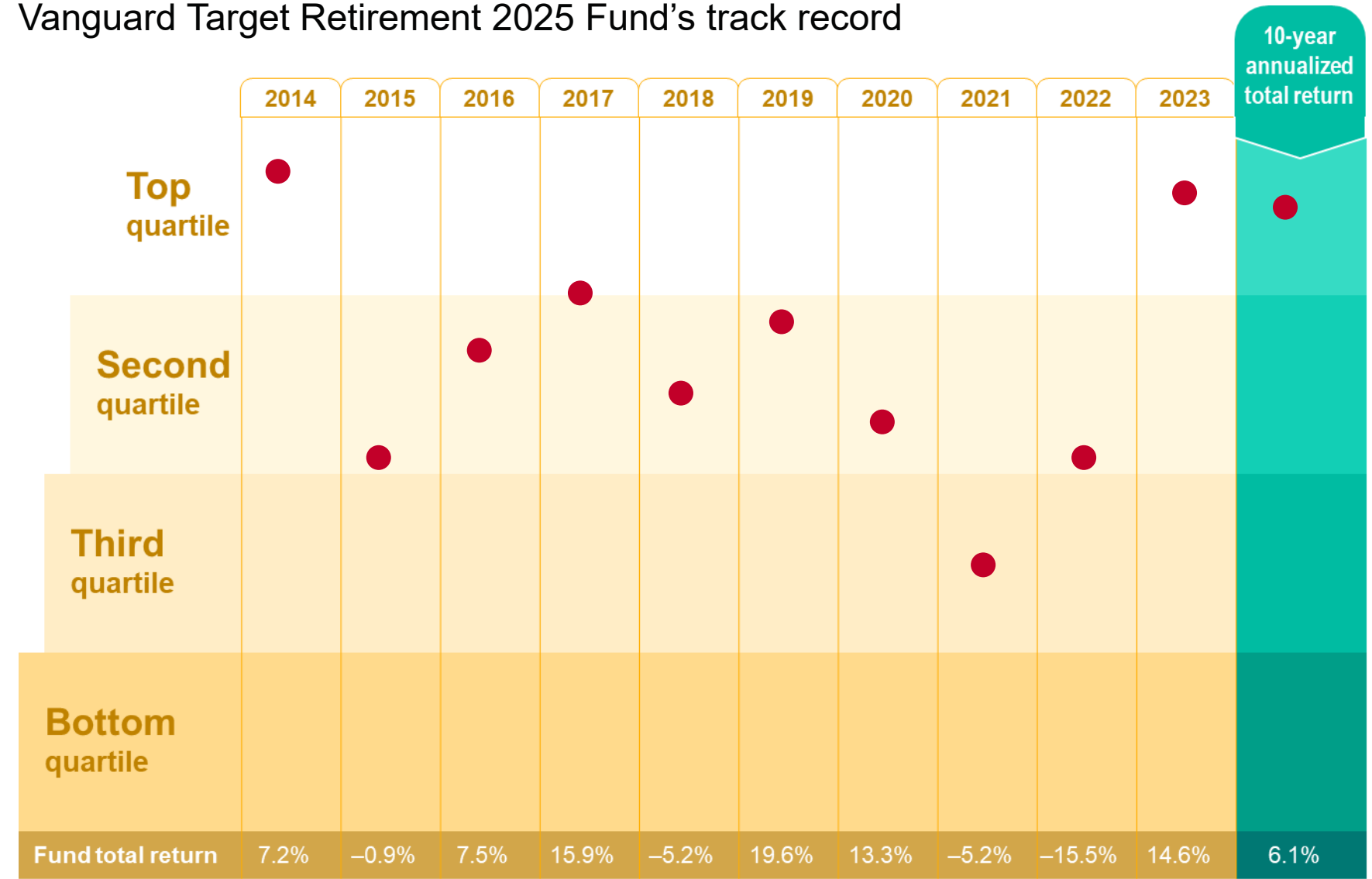




Time-tested performance

Relative consistency can lead to long-term top-quartile performance

Vanguard Target Retirement 2025 Fund's track record



The annual total return of Vanguard Target Retirement 2025 Fund as ranked in its Morningstar™ peer-group is indicated in the years 2014 through 2023. Only funds with a minimum 12-month history are included in the annual peer group results. The number of funds in the annual rankings range from 147 in 2014 to 209 in 2023. Only 146 funds with a minimum 10-year history are included in the 10-year annualized total return result. The Morningstar 2025 peer group was chosen because it is larger and has a longer track record than most other TDF vintage peer groups. See Appendix for Vanguard Target Retirement 2025 Fund's 1-, 5-, and 10-year performance data as of June 30, 2024.

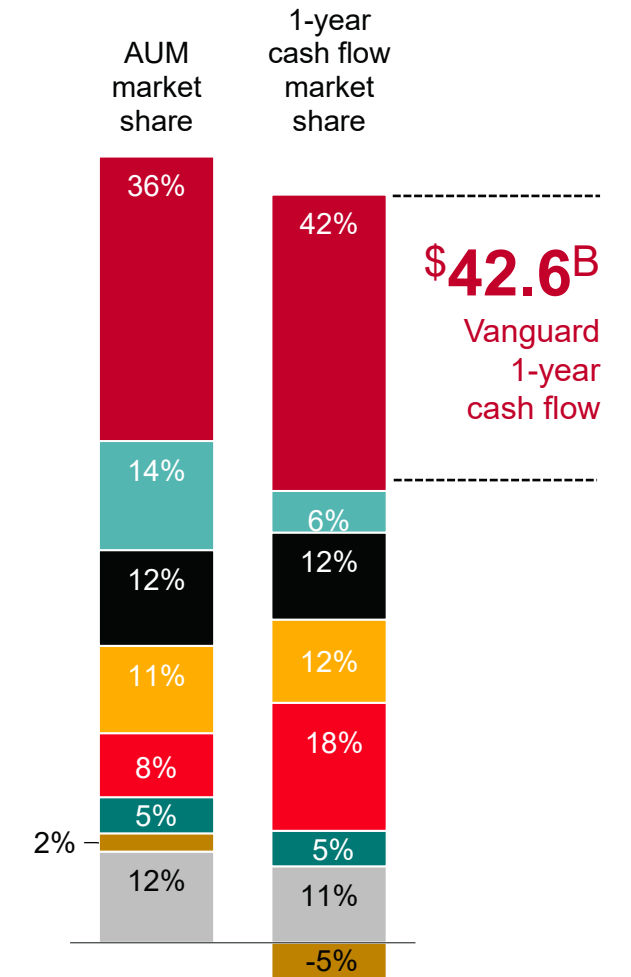
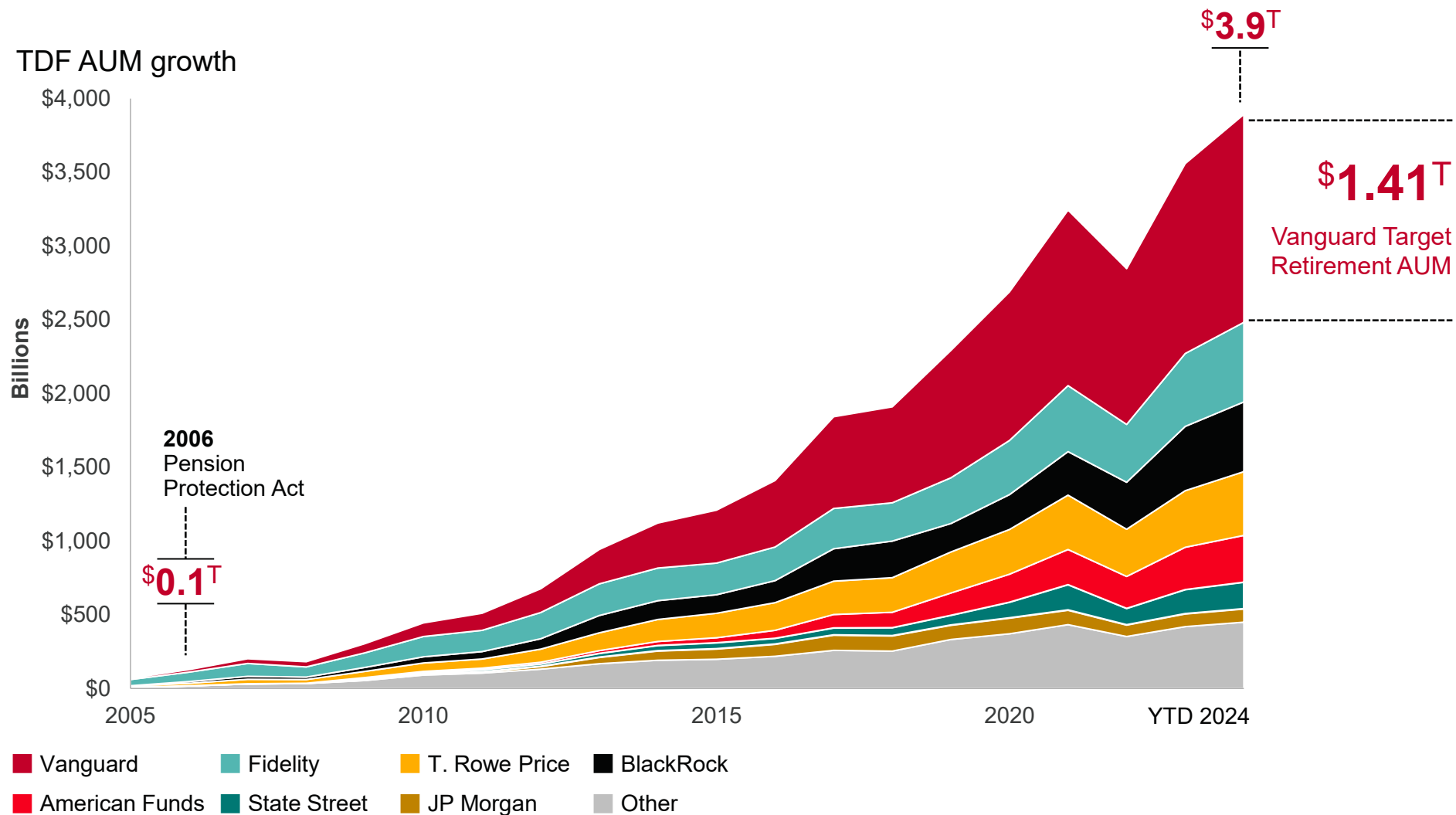
Sources: Vanguard and Morningstar, Inc., as of December 31, 2023.

Note that the competitive performance data shown represent past performance, which is not a guarantee of future results, and that all investments are subject to risks. For the most recent performance, visit our website at vanguard.com/performance. There may be other material differences between products that must be considered before investing.



TDF industry and market overview

Vanguard continues to lead the TDF industry



Sources: TDF assets are based on data from Vanguard, Morningstar, and company public filings, as of June 30, 2024.

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Market environment

Ranking by returns (%)

2019	2020	2021	2022	2023	3Q 2023	4Q 2023	1Q 2024	2Q 2024
CRSP 30.8	CRSP 21.0	REIT 43.1	COM 16.1	CRSP 26.0	COM 4.7	REIT 16.0	CRSP 10.0	CRSP 3.3
REIT 25.8	FTSE 11.2	COM 27.1	CASH 1.5	FTSE 15.8	CASH 1.4	CRSP 12.1	FTSE 4.3	COM 2.9
FTSE 21.8	AGG 7.5	CRSP 25.7	STPS -2.7	REIT 13.7	HYB 0.5	EMB 9.8	COM 2.2	STPS 1.4
HYB 14.3	HYB 7.1	FTSE 8.8	HYB -11.2	HYB 13.4	STPS 0.4	FTSE 9.8	HYB 1.5	CASH 1.4
EMB 14.1	EMB 5.6	STPS 5.3	IAGG -12.7	EMB 10.5	IAGG -1.3	HYB 7.2	CASH 1.4	HYB 1.1
AGG 8.7	STPS 5.1	HYB 5.3	AGG -13.0	IAGG 8.8	EMB -2.9	AGG 6.8	EMB 1.2	FTSE 0.9
IAGG 8.1	IAGG 4.7	CASH 0.1	FTSE -16.1	AGG 5.5	AGG -3.2	IAGG 6.4	STPS 0.9	EMB 0.3
COM 5.4	CASH 0.6	AGG -1.5	EMB -17.1	CASH 5.3	CRSP -3.3	STPS 2.6	IAGG 0.1	REIT 0.1
STPS 4.9	COM -3.5	EMB -1.8	CRSP -19.5	STPS 4.5	FTSE -3.3	CASH 1.4	REIT -0.3	AGG 0.1
CASH 2.3	REIT -7.6	IAGG -2.1	REIT -24.5	COM -7.9	REIT -7.0	COM -4.6	AGG -0.8	IAGG -0.4

Benchmark performance

		Average annualized return				
Target Retirement Fund building blocks		3 months	1 year	3 years	5 years	10 years
CRSP	CRSP U.S. Total Market Index	3.25	23.17	7.91	14.07	12.11
FTSE	FTSE Global All Cap ex U.S. Index	0.86	11.68	0.48	5.87	4.12
AGG	Bloomberg U.S. Aggregate Bond Index	0.07	2.63	-3.02	-0.23	1.35
IAGG	Bloomberg Global Agg ex U.S. Float Adj RIC Cap Index (Hedged)	-0.39	4.69	-1.87	-0.25	2.12
STPS	Bloomberg U.S. 0-5 Year TIPS Index	1.41	5.37	2.15	3.16	2.03
Other indexes						
CASH	3-Month T-Bill	1.37	5.64	3.16	2.22	1.52
HYB	Bloomberg U.S. Corporate High Yield Index	1.09	10.44	1.64	3.92	4.31
EMB	Bloomberg USD Emerging Markets Gov RIC Cap Index	0.33	8.32	-2.58	0.02	2.39
REIT	MSCI U.S. REIT Index	0.08	7.60	0.20	3.89	5.83
COM	Bloomberg Commodity Index	2.89	5.00	5.65	7.25	-1.29

Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Sources: Vanguard, Bloomberg Live, and Morningstar, as of June 30, 2024.

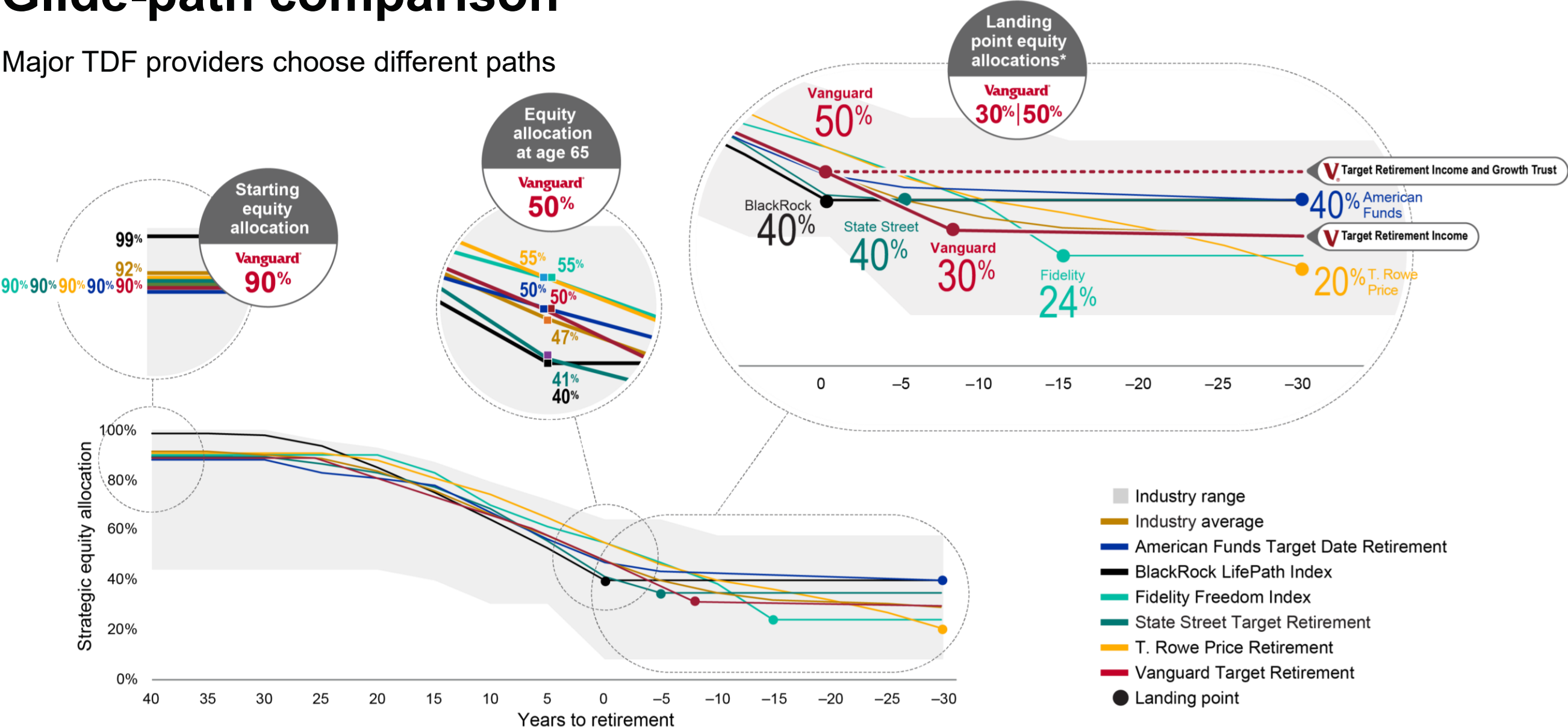
Note: Beginning 3Q 2021, the benchmark shown for the EMB category changed from Bloomberg Emerging Markets Sovereign Index USD to Bloomberg USD Emerging Markets Gov RIC Cap Index.

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Glide-path comparison

Major TDF providers choose different paths



*Vanguard Target Retirement Funds and Trusts reach a 30% equity allocation via Target Retirement Income Fund or Trust. Alternatively, participants can maintain a 50% equity allocation by switching to Vanguard Target Retirement Income and Growth Trust.

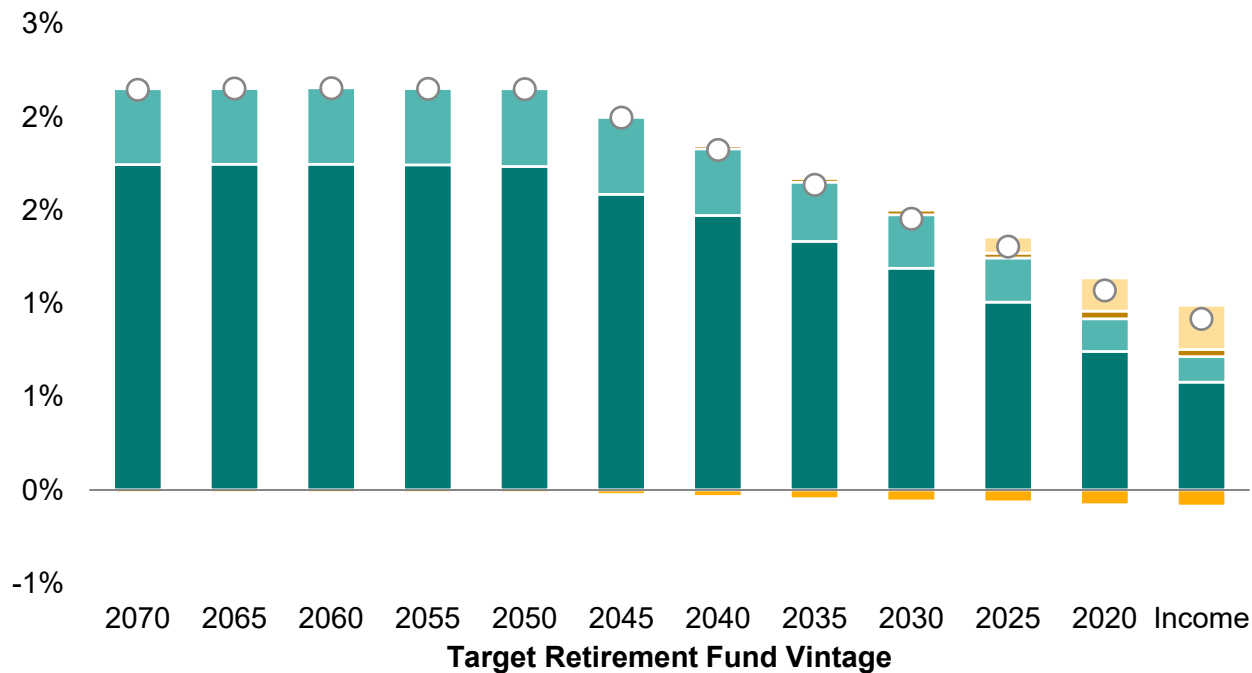
Sources: Vanguard and competitor websites; data as of December 31, 2023; Vanguard calculation for industry average.

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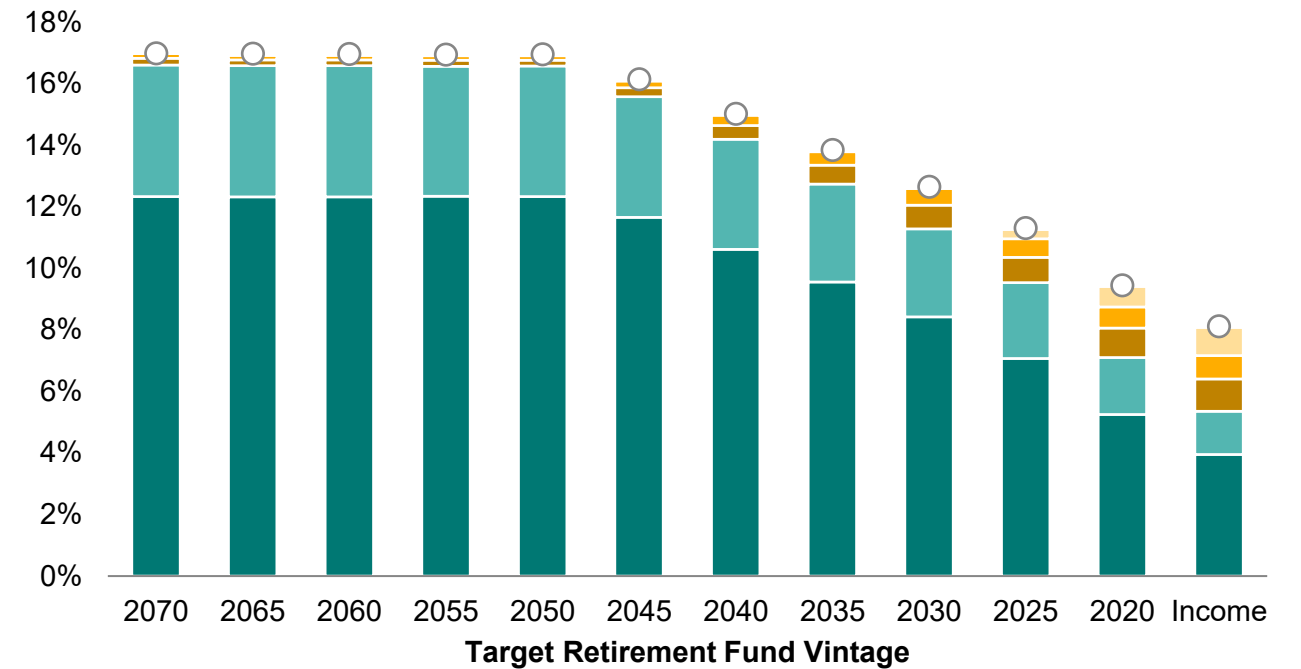
Performance and attribution overview

Absolute return contribution

3-month return contribution



12-month return contribution



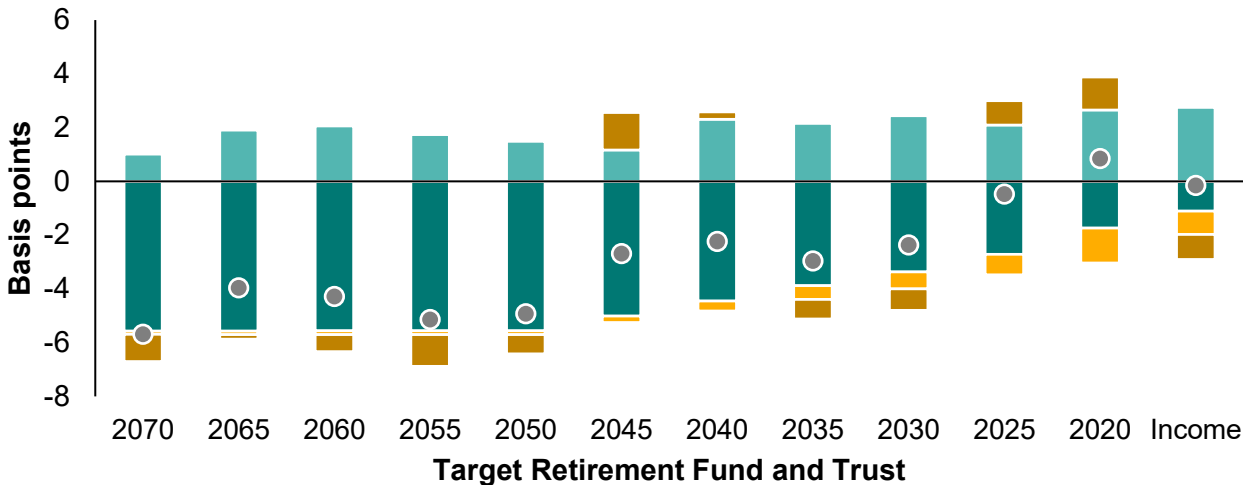
- Total Stock Market Index
- Total International Stock Index
- Total return
- Total Bond Market II Index
- Total International Bond II Index
- Short-Term Inflation-Protected Securities Index

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance.

Sources: Vanguard and Morningstar, as of June 30, 2024.

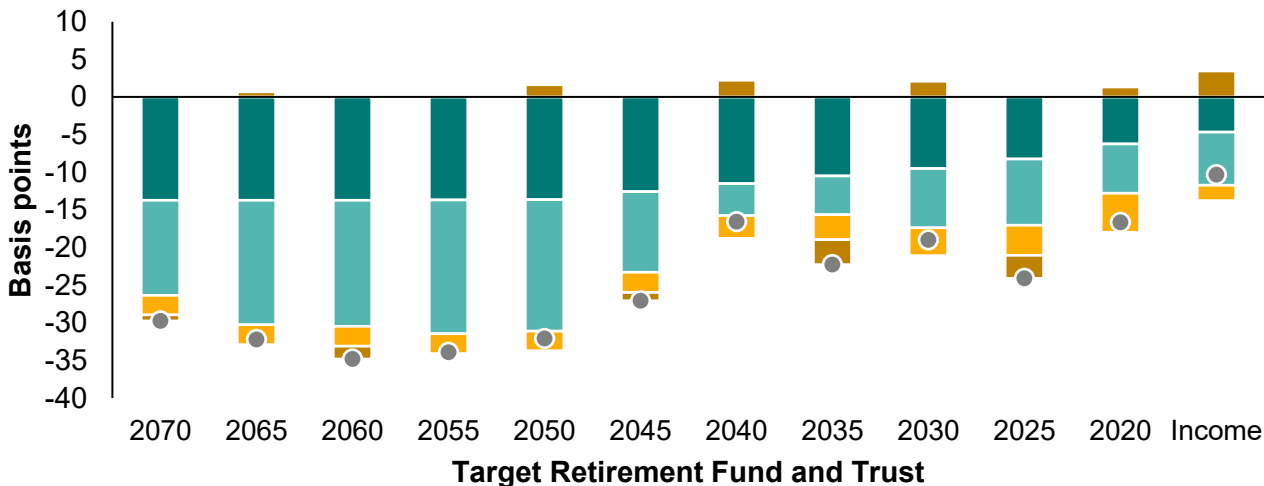
Benchmark relative return attribution

3-month return attribution



- Allocation impact** Out/underperformance due to differences in the strategic asset allocation of the funds versus their benchmarks. These differences can be particularly notable at times of significant market volatility as portfolio managers work to balance transaction costs against a daily rebalanced benchmark.
- Fair-value pricing** Out/Underperformance due to the adjustment of the prices of non-U.S. equities for changes in their fair value that occur after the close of their local market but before the net asset value is calculated for each U.S. mutual fund as of 4 p.m., Eastern time. This impact is attributed to accounting and pricing policies that are outside of portfolio management control and is generally artificial and temporary.
- Underlying fund tracking differences ex-FV** Out/underperformance of the underlying portfolios versus their relative benchmarks. Figure is shown after controlling for fair-value pricing but is inclusive of the securities-lending impact, transaction costs associated with rebalancing the fund-of-funds portfolio, and pricing difference driven by Bloomberg (BB) indexes pricing at 4 p.m., Eastern time.*
- Residual** Out/underperformance due to factors outside of those captured above.
- Gross positive/negative return** Indicates the total amount of fund returns that were higher or lower than benchmark returns. Calculated as the sum of the individual impacts of each of the five above drivers of benchmark-related excess return. Effect of expense ratios not included.

12-month return attribution



The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance.

Sources: Vanguard and Morningstar, as of June 30, 2024. See Disclosures slide for composition of composite benchmarks.

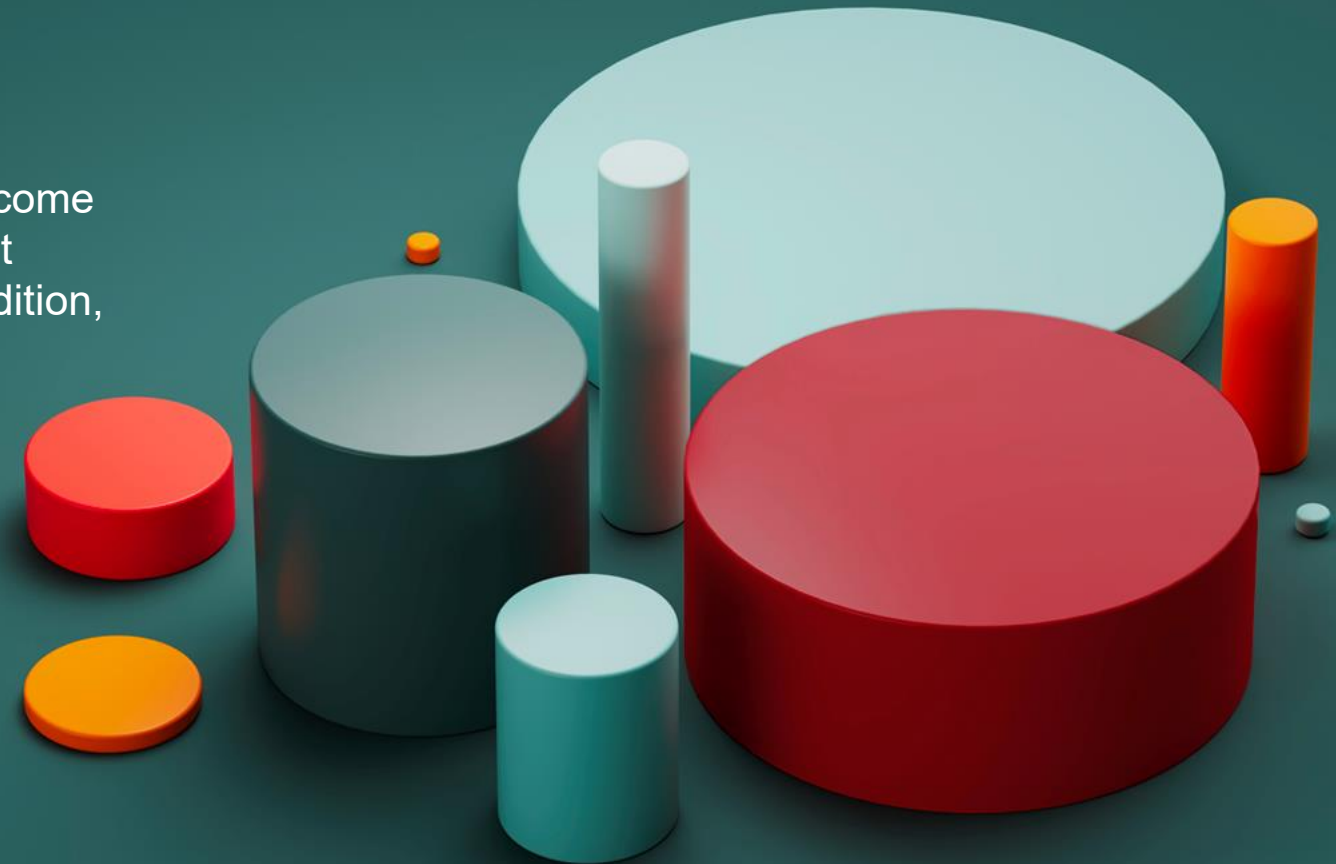
* On January 14, 2021, Bloomberg changed its index pricing time from 3 p.m., Eastern time, to 4 p.m., Eastern time. The time change affects the three-year figures.

Notable updates

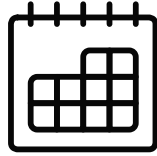
Considerations for evaluating hybrid annuity TDFs

As participants move from accumulation to decumulation, their investment needs become less homogeneous with their unique personal circumstances. One of the hottest topics in retirement income right now is guaranteed income, particularly as part of an offer that blends target-date funds (TDFs) with an annuity product. In this edition, we acknowledge the investment merit of hybrid annuity TDFs and provide considerations around usability, acceptability, implementation, and feasibility for those evaluating whether to introduce these products into their fund lineup.

[View full article](#)



Key takeaways



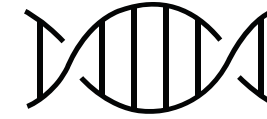
Consistent performance for target-date funds

- Absolute performance remained strong in the first quarter of 2024 with 1-year returns ranging from 7.96% (Income) to 16.65% (2070).
- Benchmark relative returns were tight for the second quarter of 2024 with vintages seeing allocation impact of +3bps (Income) to +1bps (2070).
- The quarter saw relative outperformance from peers with more aggressive, equity-heavy allocations across the glide path given equity market dynamics, resulting in active TDF series outperforming index-based YTD. However, it is worth noting that many of these top performers are relatively small funds characterized by significantly greater portfolio risk and turnover.



Putting the spotlight on our target-date team

- **Aurelie Denis** discusses the team's rigorous management approach, highlighting the strength of the partnership between the Equity Indexing and Multi-Asset portfolio management teams, and the importance of the strong index building blocks underscoring the lineup.
- **Roger Aliaga-Diaz** and **Mike Roach** offer a glimpse into what it's like overseeing the long-term strategy and day-to-day operations of our TRFs and discuss how they plan to continue to drive value for our clients.
- **Mike Roach** discusses the merits of the Target Retirement Fund series and its time-tested performance and design as part of Vanguard's *Investment Product Talk* series throughout business cycles and shifting market dynamics.



Commitment to purposeful evolution

- Vanguard recently released the 23rd edition of *How America Saves*, our flagship 401(k) report that assesses the broader industry. This data-driven publication looks at the retirement plan design of the 1,500 plans representing nearly 5 million participants record-kept by Vanguard and is one of the many factors influencing our purposeful evolution over time.
- Throughout the year, Vanguard's research will focus on fixed income exposure, inflation-hedging asset classes, and reevaluating equity weights across the glide path.
- As previously announced, Vanguard will adopt a 200 bps/175 bps threshold-based rebalancing methodology across the funds and their composite benchmarks. Read more about the enhancement by clicking [here](#).

Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Source: Vanguard, as of June 30, 2024.

Committed to ongoing research and thought leadership

Vanguard viewpoints

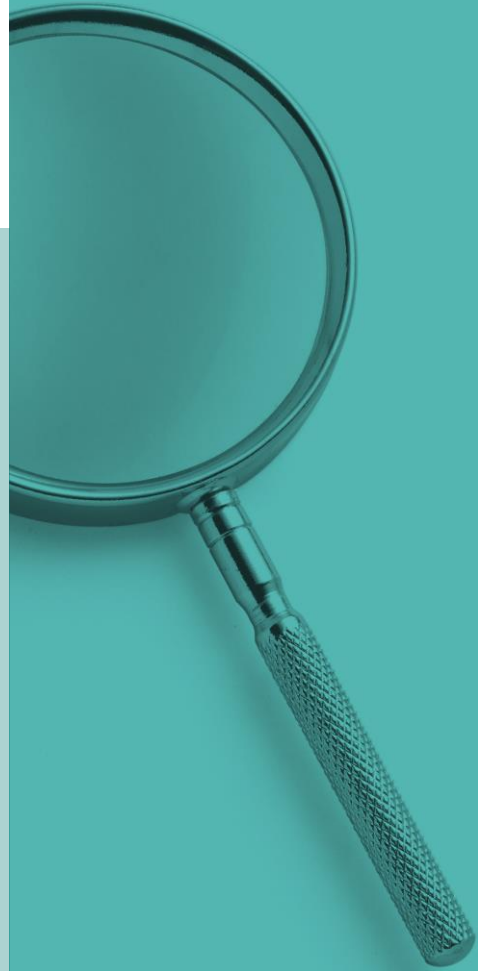
- Vanguard's approach to target-date fund rebalancing
2Q 2024
- Adding value through a strategic approach
1Q 2024
- TDF performance: A marathon, not a sprint
4Q 2023
- A client-centric approach to securities lending
4Q 2023
- A look back on 20 years of Vanguard Target Retirement Funds
4Q 2023
- How investor behavior factors into our TDF portfolio plan
3Q 2023

Research papers

- From theory to practice: Guaranteed income and hybrid annuity target-date funds
JUNE 2024
- How America Saves 2024
MAY 2024
- What to consider when selecting an index fund manager
JANUARY 2024
- Vanguard's approach to target-date funds
NOVEMBER 2022
- Good health, poor health: Implications for retirement spending and asset allocation
SEPTEMBER 2022

Current research and development topics

- Use of stable value in TDFs
- TDFs or financial advice? How about both?
- Optimized fixed income allocations
- Equity allocations across the glide path
- Annual glide-path validation
- Inflation hedging allocations in TDFs
- Retirement income for TDF users



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Oversight and management

Dedicated expertise at every step of the process

From analyst to CEO, an extensive group of dedicated professionals strive to maximize participants' chances for retirement success

GLOBAL INVESTMENT COMMITTEE (GIC)

- Primary governance committee for all Vanguard products composed of global business leaders, including Vanguard's CEO
- Considers and approves investment matters pertaining to all Vanguard products and provides organizational direction on strategic fund/investment initiatives

STRATEGIC ASSET ALLOCATION COMMITTEE (SAAC)

- Multi-asset governance committee composed of global investment leaders, including Vanguard's global CIO and chief economist
- Regularly reviews investment methodology, considers and approves investment strategies, and ensures a consistent approach across product and advice offers

PRODUCT MANAGEMENT

Multi-Asset Solutions Team

Portfolio Review Department

- Fund health and product oversight
- Product research and new product development
- Competitive analysis and landscape assessment

 **Brian Wimmer**
Head of Multi-Asset Solutions

INVESTMENT MANAGEMENT

Multi-Asset Portfolio Management Team

Investment Management Group

- Daily implementation of the strategic asset allocation
- Portfolio rebalance policy execution
- Daily cash-flow management

 **Michael Roach** 
Head of Multi-Asset Portfolio Management

Portfolio Construction Team

Investment Strategy Group

- Vanguard investment model development and maintenance
- Strategic asset allocation methodology
- Sub-asset allocation and portfolio construction research

 **Roger Aliaga-Díaz** 
Chief Economist (Americas)
and Global Head of Portfolio Construction

RISK MANAGEMENT

Multi-Asset Risk Team

Investment Management and Finance Risk

- Investment and operational risk monitoring/analysis
- Ensure adherence to relevant policies/guardrails
- Risk and performance assessments

 **Venky Venkatesh**
Head of Multi-Asset Investment Risk

 Co-portfolio manager, Target Retirement Funds and Trusts

About the SAAC

The Vanguard Strategic Asset Allocation Committee (SAAC) is a multi-asset oversight committee composed of global investment leaders from across the firm.

The members of the SAAC are responsible for the investment methodology behind our single-fund solutions, including Vanguard LifeStrategy® Funds, Target Retirement Funds, 529 plans, and model portfolios.

The SAAC meets regularly to review its investment methodology, debate investment strategies, and coordinate any changes with Vanguard's Advice Policy Committee, thereby ensuring a consistent approach in our single-fund solutions and advice offers.



Joseph Davis, Ph.D., (Committee Chair)
Global Chief Economist and Global Head of Investment Strategy Group
Roger Aliaga-Díaz, Ph.D., (Committee Vice-chair)
Chief Economist, Americas, Global Head of Portfolio Construction
Greg Davis, CFA, (Ex-Officio) Global Chief Investment Officer

Kaitlyn Caughlin, CFA, CFP®, Global Head of IMG Risk Management
Geoff Parrish, CFA, Principal, Global Head of Fixed Income Indexing (New Member)
Duncan Burns, CFA, Head of Investments, Asia-Pacific, and of Investment Strategy Group, Asia-Pacific

Matthew Brancato, CFA, CPA, Chief Client Officer, Institutional Investor Group
Qian Wang, Ph.D., Chief Economist, Asia-Pacific, Investment Strategy Group
Dan Reyes, CFA, Head of Portfolio Review Department

Brian Wimmer, CFA, Head of Multi-Asset Solutions (nonvoting member)
Joel Dickson, Ph.D., Head of Enterprise Advice Methodology
Michael Roach, CFA, Senior Manager, Head of Multi-Asset Portfolio

Brent Beardsley, Head of Strategy and Development (New Member)
Yan Pu, CFA, Principal, Head of Advice Methodology (Nonvoting Member)
Ian Kresnak, CFA, Chief of Staff, Investment Strategy Group (Nonvoting Member)

Source: Vanguard.

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Questions?



Thank you
for your time
and continued
confidence.

Appendix: Detailed performance

Vanguard Target Retirement Fund and Trust performance

Annualized (as of June 30, 2024)

	Expense ratio	3 months	1 year	3 years	5 years	10 years	Since inception	Inception date
Vanguard Target Retirement Income Vintage								
Fund	0.08	0.89	7.96	0.46	3.72	3.95	4.90	10/27/2003
Trust II	0.075	0.90	7.94	0.49	3.75	3.99	4.62	2/29/2008
Target Retirement Income Composite Index ¹	—	0.91	8.14	0.68	4.00	4.18	—	—
Vanguard Target Retirement 2020 Vintage								
Fund	0.08	1.05	9.24	0.94	5.15	5.35	5.97	6/7/2006
Trust II	0.075	1.05	9.28	0.97	5.19	5.40	5.85	2/29/2008
Target Retirement 2020 Composite Index ¹	—	1.06	9.47	1.21	5.50	5.62	—	—
Vanguard Target Retirement 2025 Vintage								
Fund	0.08	1.26	11.02	1.51	6.12	6.03	6.62	10/27/2003
Trust II	0.075	1.28	11.09	1.59	6.20	6.12	6.33	2/29/2008
Target Retirement 2025 Composite Index ¹	—	1.28	11.31	1.86	6.54	6.35	—	—
Vanguard Target Retirement 2030 Vintage								
Fund	0.08	1.37	12.39	2.07	6.95	6.58	6.72	6/7/2006
Trust II	0.075	1.41	12.37	2.15	7.02	6.66	6.70	2/29/2008
Target Retirement 2030 Composite Index ¹	—	1.42	12.62	2.42	7.37	6.90	—	—

The performance data shown represent past performance. Past performance is no guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. Some funds assess purchase, redemption, and/or account maintenance fees. The performance data shown do not reflect deduction of these fees. If they did, performance would be lower. Details on these fees and adjusted performance figures can be found in the fund detail section. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Source: Data derived from Morningstar, Inc.

For some funds, fees are levied on purchases or redemptions to offset the costs of buying and selling portfolio securities. For others, fees are assessed on redemptions made within certain time periods after a purchase to discourage short-term trading. All purchase or redemption fees are paid directly to the fund to compensate long-term shareholders for the costs of trading activity. *Note that one-year performance figures are not fee adjusted for fees incurred on shares held less than one year.*

¹ A blended composite that weights the returns of market indexes for each asset class in proportion with the target weighting of the fund. Detail for each composite index is available upon request.

Vanguard Target Retirement Fund and Trust performance

	Expense ratio	3 months	1 year	Annualized (as of June 30, 2024)			Since inception	Inception date
				3 years	5 years	10 years		
Vanguard Target Retirement 2035 Vintage								
Fund	0.08	1.55	13.52	2.65	7.76	7.12	7.48	10/27/2003
Trust II	0.075	1.57	13.55	2.72	7.85	7.21	7.15	2/29/2008
Target Retirement 2035 Composite Index ¹	—	1.60	13.78	2.99	8.19	7.45	—	—
Vanguard Target Retirement 2040 Vintage								
Fund	0.08	1.73	14.74	3.23	8.59	7.65	7.46	6/7/2006
Trust II	0.075	1.73	14.68	3.28	8.65	7.72	7.58	2/29/2008
Target Retirement 2040 Composite Index ¹	—	1.77	14.94	3.55	8.99	7.98	—	—
Vanguard Target Retirement 2045 Vintage								
Fund	0.08	1.90	15.81	3.78	9.40	8.12	8.20	10/27/2003
Trust II	0.075	1.91	15.79	3.83	9.44	8.18	7.84	2/29/2008
Target Retirement 2045 Composite Index ¹	—	1.95	16.11	4.10	9.79	8.45	—	—
Vanguard Target Retirement 2050 Vintage								
Fund	0.08	2.02	16.63	4.15	9.68	8.26	7.82	6/7/2006
Trust II	0.075	2.07	16.66	4.22	9.75	8.32	7.94	2/29/2008
Target Retirement 2050 Composite Index ¹	—	2.09	16.97	4.47	10.09	8.60	—	—

Past performance is not a guarantee of future results.

Source: Data derived from Morningstar, Inc.

For some funds, fees are levied on purchases or redemptions to offset the costs of buying and selling portfolio securities. For others, fees are assessed on redemptions made within certain time periods after a purchase to discourage short-term trading. All purchase or redemption fees are paid directly to the fund to compensate long-term shareholders for the costs of trading activity. *Note that one-year performance figures are not fee-adjusted for fees incurred on shares held less than one year.*

¹ A blended composite that weights the returns of market indexes for each asset class in proportion with the target weighting of the fund. Detail for each composite index is available upon request.

Vanguard Target Retirement Fund and Trust performance

	Expense ratio	3 months	1 year	Annualized (as of June 30, 2024)			Since inception	Inception date
				3 years	5 years	10 years		
Vanguard Target Retirement 2055 Vintage								
Fund	0.08	2.02	16.61	4.15	9.67	8.24	10.09	8/18/2010
Trust II	0.075	2.05	16.66	4.22	9.75	8.31	10.45	8/31/2010
Target Retirement 2055 Composite Index ¹	—	2.09	16.97	4.47	10.09	8.60	—	—
Vanguard Target Retirement 2060 Vintage								
Fund	0.08	2.03	16.60	4.16	9.68	8.23	9.88	1/19/2012
Trust II	0.075	2.06	16.64	4.22	9.77	8.32	9.60	3/1/2012
Target Retirement 2060 Composite Index ¹	—	2.09	16.97	4.47	10.09	8.60	—	—
Vanguard Target Retirement 2065 Vintage								
Fund	0.08	2.03	16.63	4.19	9.66	—	9.16	7/12/2017
Trust II	0.075	2.06	16.66	4.22	9.76	—	9.73	7/17/2017
Target Retirement 2065 Composite Index ¹	—	2.09	16.97	4.47	10.09	8.49	—	—
Vanguard Target Retirement 2070 Vintage								
Fund	0.08	2.01	16.65	—	—	—	15.03	6/8/2022
Trust II	0.075	2.06	16.69	—	—	—	7.04	4/7/2022
Target Retirement 2065 Composite Index ¹	—	2.09	16.97	4.47	10.09	8.49	—	—

Past performance is not a guarantee of future results.

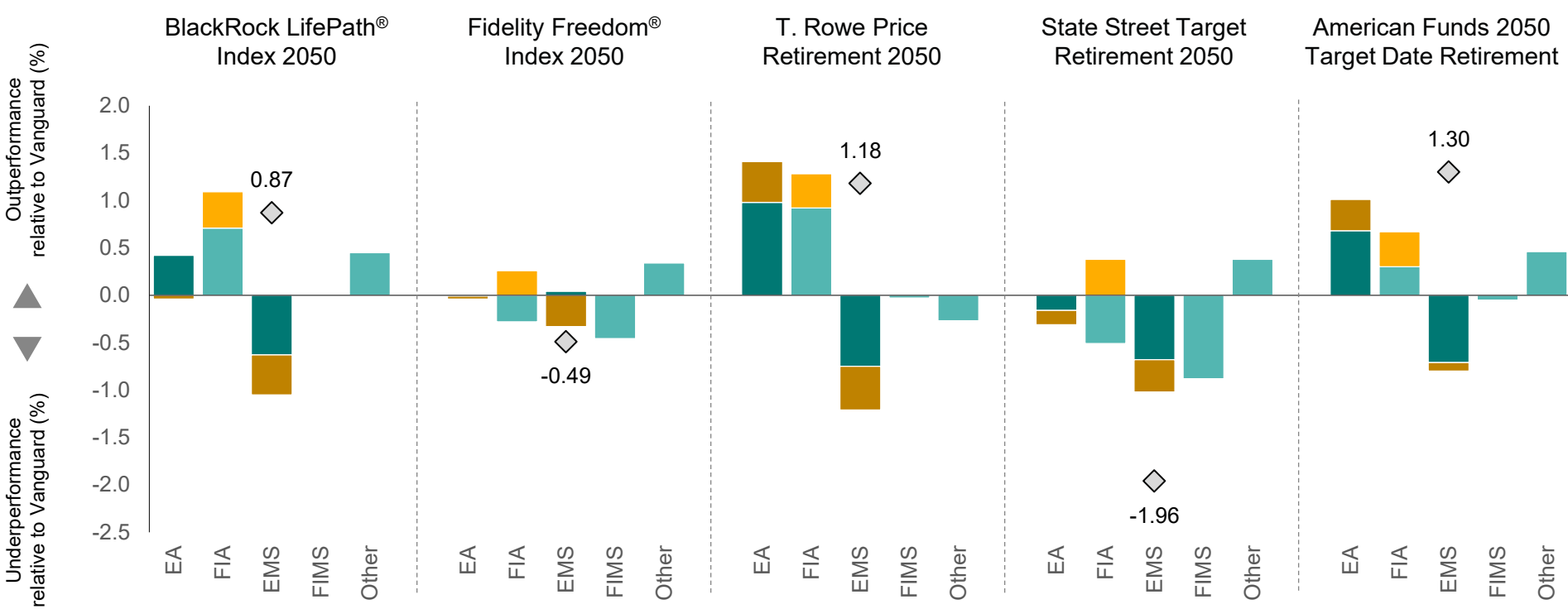
Source: Data derived from Morningstar, Inc.

For some funds, fees are levied on purchases or redemptions to offset the costs of buying and selling portfolio securities. For others, fees are assessed on redemptions made within certain time periods after a purchase to discourage short-term trading. All purchase or redemption fees are paid directly to the fund to compensate long-term shareholders for the costs of trading activity. *Note that one-year performance figures are not fee-adjusted for fees incurred on shares held less than one year.*

¹ A blended composite that weights the returns of market indexes for each asset class in proportion with the target weighting of the fund. Detail for each composite index is available upon request.

12-month return attribution

Top five industry 2050 funds relative to Vanguard (PERCENTAGE)



- U.S. equity
- U.S. fixed income
- Foreign equity
- Foreign fixed income
- ◇ Total relative return

Element	Description
Equity allocation (EA)	Vintage allocation to asset classes and sub-asset allocation to U.S. vs. non-U.S.
Fixed income allocation (FIA)	
Equity manager selection (EMS)	Benchmark construction differences (cap and/or style tilts), securities lending, fair-value pricing, building block expense ratios
Fixed income manager selection (FIMS)	
Other	Compounding effect (residual) due to nondaily holdings availability
Total excess return	The sum of the above relative performance differences between Vanguard Target Retirement Fund and competitors' similar vintage

Outperformance relative to Vanguard was driven by a lower overall allocation to fixed income securities.

Underperformance relative to Vanguard was primarily driven by an overweight to long duration Treasury securities within the U.S. fixed income portion of the portfolio.

Outperformance relative to Vanguard was driven by a higher overall allocation to equity securities, overcoming poor security selection in that same segment of the portfolio.

Underperformance was driven by an overweight to long duration fixed income relative to Vanguard.

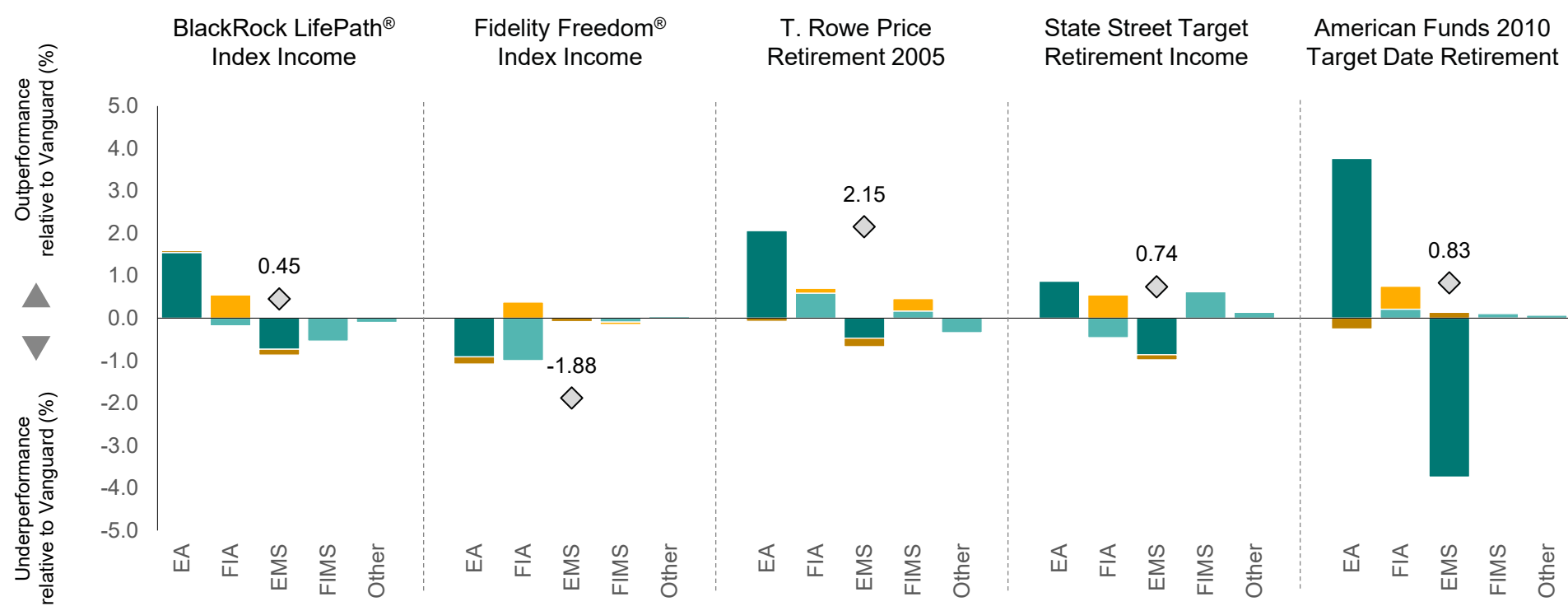
Outperformance relative to Vanguard was driven by a higher overall allocation to equity securities, despite poor security selection within this segment of the portfolio.

Past performance is not a guarantee of future results.
Sources: Morningstar and Vanguard calculations; data as of June 30, 2024.

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12-month return attribution

Top five industry income (or equivalent) funds* relative to Vanguard (PERCENTAGE)



- U.S. equity
- U.S. fixed income
- Foreign equity
- Foreign fixed income
- ◇ Total relative return

Element	Description
Equity allocation (EA)	Vintage allocation to asset classes and sub-asset allocation to U.S. vs. non-U.S.
Fixed income allocation (FIA)	
Equity manager selection (EMS)	Benchmark construction differences (cap and/or style tilts), securities lending, fair-value pricing, building block expense ratios
Fixed income manager selection (FIMS)	
Other	Compounding effect (residual) due to nondaily holdings availability
Total excess return	The sum of the above relative performance differences between Vanguard Target Retirement Fund and competitors' similar vintage

Outperformance over the period was driven by a higher allocation to U.S. equity.

Underperformance was driven by a significant underweight to equity securities relative to Vanguard and a large exposure to cash equivalents.

Outperformance was driven by a higher allocation to U.S. equity relative to Vanguard.

Outperformance was driven by a lack of allocation to international fixed income, in favor of U.S. equity, and a tilt towards short duration U.S. fixed income.

Outperformance relative to Vanguard was driven by a higher allocation to U.S. equity, overcoming poor security selection in this same segment of the portfolio.

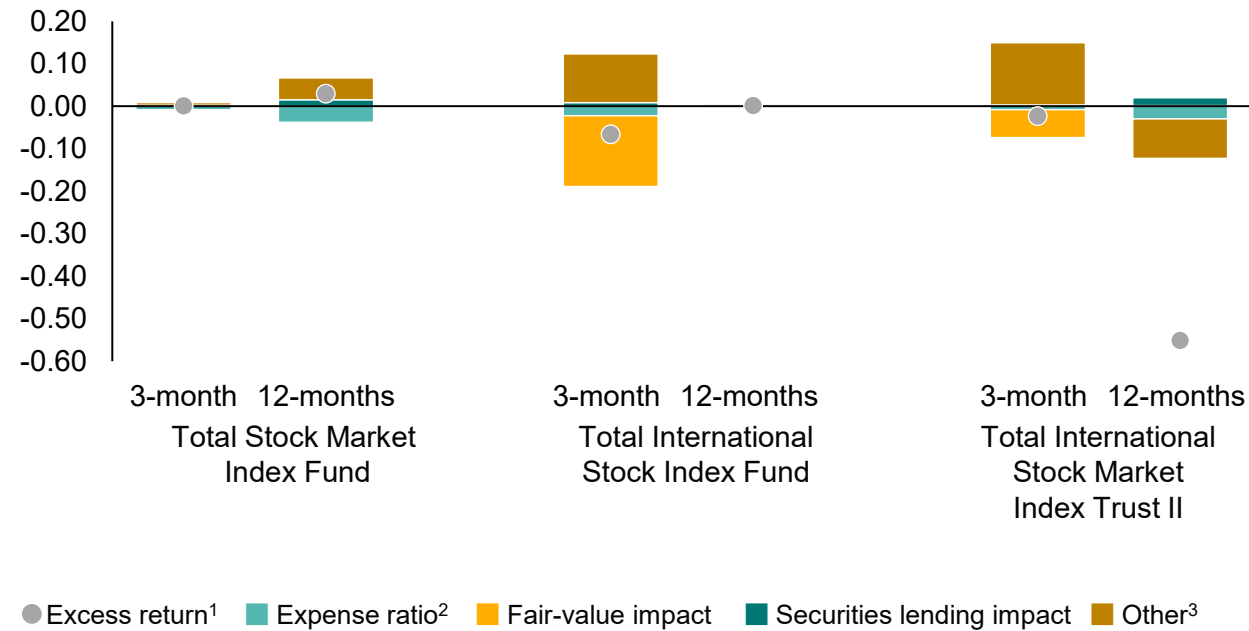
Past performance is not a guarantee of future results.

Sources: Morningstar and Vanguard calculations; data as of June 30, 2024.

* The 2005 fund is used as a proxy for T. Rowe Price, and the 2010 fund is used as a proxy for American Funds, as there is no terminal income fund currently.

Attribution for underlying funds

Equity funds 3- and 12-month return attribution



Numbers may not add due to rounding.

Sources: Vanguard and Morningstar, as of June 30, 2024. See Disclosures slide for composition of composite benchmarks.

On January 14, 2021, Bloomberg changed its index pricing time from 3 p.m., Eastern time, to 4 p.m., Eastern time. The time change affects the three-year figures.

¹ Excess return equals fund return minus benchmark return.

² Expense ratio (ER) attribution includes the impact of compounding on fund returns over time. Consequently, a fund's ER (above) may appear larger than the published ER.

³ Other category may include performance impacts from the following sources: portfolio manager investment decisions, trading impact, tax withholding differences (funds with international investments only), and security pricing differences.

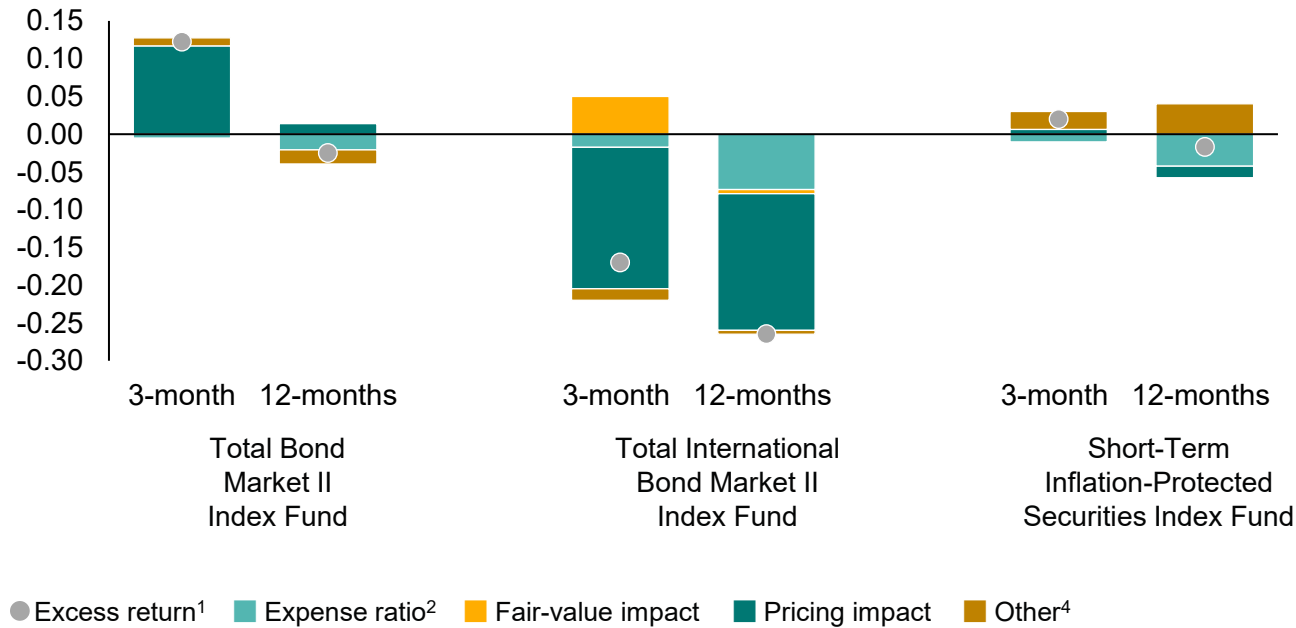
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Fund name	Attribution	Fund return	Benchmark return	Expense ratio impact ²	Fair-value impact	Securities lending impact	Other ³	Excess return ¹
Vanguard Total Stock Market Index Fund	3-month	3.249	3.248	-0.008	0.000	0.003	0.006	0.001
	12-month	23.197	23.168	-0.037	0.000	0.016	0.051	0.029
Vanguard Total International Stock Index Fund	3-month	0.795	0.861	-0.023	-0.166	0.008	0.115	-0.066
	12-month	24.558	24.556	-0.001	0.000	0.001	0.002	0.002
Vanguard Total International Stock Market Index Trust II*	3-month	0.838	0.861	-0.008	-0.165	0.003	0.146	-0.023
	12-month	11.130	11.681	-0.030	-0.446	0.018	-0.093	-0.551

* Vanguard Total International Stock Market Index Trust II is a building block for the Target Retirement Trusts only.

Attribution for underlying funds

Fixed income funds 3- and 12-month return attribution



Numbers may not add due to rounding.

Sources: Vanguard and Morningstar, as of June 30, 2024. See Disclosures slide for composition of composite benchmarks.

On January 14, 2021, Bloomberg changed its index pricing time from 3 p.m., Eastern time, to 4 p.m., Eastern time. The time change affects the three-year figures.

¹ Excess return equals fund return minus benchmark return.

² Expense ratio (ER) attribution includes the impact of compounding on fund returns over time. Consequently, a fund's ER (above) may appear larger than the published ER.

³ Pricing impact includes the difference in performance driven by Bloomberg pricing of benchmarks at 3 p.m., Eastern time, relative to Vanguard's pricing of all funds at 4 p.m., Eastern time, as well as differences in external pricing vendor inputs.

⁴ Other category may include performance impacts from the following sources: portfolio manager investment decisions, trading impact, tax withholding differences (funds with international investments only), and security pricing differences.

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Fund name	Attribution	Fund return	Benchmark return	Expense ratio impact ²	Fair-value impact	Pricing impact ³	Other ⁴	Excess return ¹
Vanguard Total Bond Market II Index Fund	3-month	0.199	0.076	-0.005	0.000	0.117	0.011	0.123
	12-month	2.709	2.734	-0.021	0.000	0.014	-0.019	-0.025
Vanguard Total International Bond Market II Index Fund	3-month	-0.562	-0.392	-0.017	0.050	-0.187	-0.015	-0.170
	12-month	4.423	4.688	-0.073	-0.006	-0.181	-0.005	-0.265
Vanguard Short-Term Inflation-Protected Securities Index Fund	3-month	1.427	1.407	-0.010	0.000	0.007	0.024	0.020
	12-month	5.352	5.369	-0.042	0.000	-0.015	0.041	-0.017

Absolute performance returns

Annualized (as of June 30, 2024)

	Expense ratio	3 months	Year-to-date	1 year	3 years	5 years	10 years	Since inception	Inception date
Vanguard Target Retirement Income Fund	0.08	0.89	3.00	7.96	0.46	3.72	3.95	4.90	10/27/2003
<i>Target Retirement Income Composite Index</i>	—	0.91	3.10	8.15	0.68	4.00	4.18	--	—
<i>Lipper Target Target Consvr Funds Average</i>	—	0.87	3.44	8.09	0.37	3.45	3.46	--	—
Fidelity Freedom Income	0.47	0.77	2.18	6.17	-0.45	2.65	3.14	4.40	10/17/1996
Fidelity Freedom Index Income Investor	0.12	0.79	2.18	6.08	-0.12	2.54	2.93	3.47	10/2/2009
T. Rowe Price Retirement 2005	0.49	1.01	4.69	10.11	1.13	4.96	4.68	5.54	2/27/2004
American Funds 2010 Trgt Date Retire R5	0.34	0.86	3.60	8.79	1.93	5.01	4.86	4.95	2/1/2007
BlackRock LifePath Index Retire K	0.13	0.98	3.57	8.41	0.04	4.29	4.46	5.02	5/31/2011
State Street Target Retirement K	0.26	1.10	3.49	8.71	1.19	4.58	—	4.46	9/30/2014
JPMorgan SmartRetirement [®] Income R5	0.47	1.31	4.80	9.90	1.00	4.15	4.12	4.89	5/15/2006
JPMorgan SmartRetirement [®] Blend Income R5	0.51	1.18	4.39	9.45	0.83	4.06	4.07	4.72	7/2/2012
TIAA-CREF Lifecycle Retire Income Instl	0.54	1.24	4.65	9.46	1.15	4.79	4.81	4.97	11/30/2007
Vanguard Target Retirement 2050 Fund	0.08	2.02	9.05	16.63	4.15	9.68	8.26	7.82	6/7/2006
<i>Target Retirement 2050 Composite Index</i>	—	2.09	9.14	17.04	4.50	10.11	8.60	--	—
<i>Lipper Target 2050 Funds Average</i>	—	1.64	9.44	16.79	3.76	9.22	7.67	--	—
Fidelity Freedom 2050	0.75	1.82	10.31	17.95	3.84	10.26	8.54	7.05	6/1/2006
Fidelity Freedom Index 2050 Investor	0.12	2.02	9.05	16.14	3.72	9.39	8.20	9.49	10/2/2009
T. Rowe Price Retirement 2050	0.63	1.42	9.88	17.81	3.69	9.98	8.63	7.71	12/29/2006
American Funds 2050 Trgt Date Retire R5	0.43	1.73	9.56	17.93	4.22	10.26	9.07	8.03	2/1/2007
JPMorgan SmartRetirement 2050 R5	0.53	2.14	10.30	17.93	4.39	9.72	8.06	7.48	7/31/2007
JPMorgan SmartRetirement [®] Blend 2050 R5	0.47	2.03	9.21	16.41	4.14	9.20	7.86	9.39	7/2/2012
TIAA-CREF Lifecycle 2050 Institutional	0.64	2.17	10.52	17.86	4.25	10.13	8.61	7.05	11/30/2007
BlackRock Lifepath Index 2050 K	0.14	2.10	9.48	17.49	4.51	10.07	8.57	8.99	5/31/2011
State Street Target Retirement 2050 K	0.18	1.28	7.52	14.66	2.45	9.00	—	8.28	9/30/2014

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Data from Vanguard and Factset.

Standardized performance returns

Annualized (as of June 30, 2024)

	Expense ratio	3 months	Year-to-date	1 year	3 years	5 years	10 years	Since inception	Inception date
Vanguard Total Stock Market Index Fund Institutional Shares	0.03	10.00	10.00	29.37	9.64	14.25	12.28	8.91	7/7/1997
Vanguard Total International Stock Index Fund Institutional Shares	0.09	4.32	4.32	13.00	1.91	6.19	4.48	5.13	11/29/2010
Vanguard Total Bond Market Index Fund Institutional Shares	0.035	-0.79	-0.79	1.67	-2.41	0.39	1.53	4.21	9/18/1995
Vanguard Total International Bond Index Fund Institutional Shares	0.07	0.10	0.10	5.23	-1.68	0.32	2.23	2.26	5/31/2013
Vanguard Short-Term Inflation-Protected Securities Index Fund Institutional Shares	0.04	0.85	0.85	3.16	2.23	3.16	2.01	1.68	10/17/2012

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Data from Vanguard and Factset.

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Target 2015 Composite Index: An index derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex U.S. Index thereafter; for emerging-markets stocks, the Select Emerging Markets Index through August 23, 2006, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex U.S. Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg U.S. Aggregate Float Adjusted Index thereafter, as well as the Bloomberg U.S. Treasury Inflation-Protected Securities Index through June 2, 2013, and the Bloomberg U.S. Treasury Inflation-Protected Securities (TIPS) 0-5 Year Index thereafter; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index; and for U.S. stocks, the Dow Jones U.S. Total Stock Market Index (formerly known as the Dow Jones Wilshire 5000 Index) through April 22, 2005, the MSCI U.S. Broad Market Index through June 2, 2013, and the CRSP U.S. Total Market Index thereafter.

Target 2020, 2030, 2040, and 2050 Composite Indexes: Indexes derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex U.S. Index thereafter; for emerging-markets stocks, the Select Emerging Markets Index through August 23, 2006, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex U.S. Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg U.S. Aggregate Float Adjusted Index thereafter; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index; and for U.S. stocks, the MSCI U.S. Broad Market Index through June 2, 2013, and the CRSP U.S. Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Target 2025, 2035, and 2045 Composite Indexes: Indexes derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex U.S. Index thereafter; for emerging-markets stocks, the Select Emerging Markets Index through August 23, 2006, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex U.S. Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg U.S. Aggregate Float Adjusted Index thereafter; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index; and for U.S. stocks, the Dow Jones U.S. Total Stock Market Index (formerly known as the Dow Jones Wilshire 5000 Index) through April 22, 2005, the MSCI U.S. Broad Market Index through June 2, 2013, and the CRSP U.S. Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Target 2055 Composite Index: An index derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex U.S. Index thereafter; for emerging-markets stocks, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex U.S. Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Float Adjusted Index; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index beginning June 3, 2013; and for U.S. stocks, the MSCI U.S. Broad Market Index through June 2, 2013, and the CRSP U.S. Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Important information

Target 2060 Composite Index: An index derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex U.S. Index thereafter; for emerging-markets stocks, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex U.S. Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Float Adjusted Index; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index beginning June 3, 2013; and for U.S. stocks, the MSCI U.S. Broad Market Index through June 2, 2013, and the CRSP U.S. Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Target 2065 Composite Index: An index derived by applying the fund's target asset allocation to the results of the following benchmarks: the FTSE Global All Cap ex U.S. Index for international stocks, the Bloomberg U.S. Aggregate Float Adjusted Index for U.S. bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index for international bonds, and the CRSP U.S. Total Market Index for U.S. stocks. International stock benchmark returns are adjusted for withholding taxes.

Target Income Composite Index: An index derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex U.S. Index thereafter; for emerging-markets stocks, the Select Emerging Markets Index through August 23, 2006, the MSCI Emerging Markets Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex U.S. Index thereafter; for U.S. bonds, the Bloomberg U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg U.S. Aggregate Float Adjusted Index thereafter, as well as the Bloomberg U.S. Treasury Inflation-Protected Securities Index through June 2, 2013, and the Bloomberg U.S. Treasury Inflation-Protected Securities (TIPS) 0-5 Year Index thereafter; for short-term reserves, the Citigroup Three-Month Treasury Bill Index through June 2, 2013; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index; and for U.S. stocks, the Dow Jones U.S. Total Stock Market Index (formerly known as the Dow Jones Wilshire 5000 Index) through April 22, 2005, the MSCI U.S. Broad Market Index through June 2, 2013, and the CRSP U.S. Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

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Important information

For more information about any fund, visit institutional.vanguard.com or call 866-499-8473 to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information are contained in the prospectus; read and consider it carefully before investing.

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