

Vanguard

Prepared for

County of Sacramento

For institutional use only. Not for distribution to retail investors.

Investment performance returns

Fund/Index/Average	Expense ratio* (%)	Three months (%)	Year-to-date (%)	Annualized (as of 03/31/2025)				
				One year (%)	Three years (%)	Five years (%)	Ten years (%)	Since Inception (%)
Domestic equity funds								
Vanguard Extended Market Index Fund Institutional Shares (07/07/1997)	0.05	-8.93	-8.93	-0.46	2.69	15.19	7.89	8.56
Spliced Extended Market Index ^{1 3}		-8.95	-8.95	-0.50	2.53	15.05	7.75	—
Mid-Cap Core Funds Average		-3.89	-3.89	-0.77	4.01	15.57	7.33	—
Vanguard Institutional Index Fund Institutional Plus Shares (07/07/1997)	0.02	-4.28	-4.28	8.23	9.04	18.57	12.49	8.77
S&P 500 Index ³		-4.27	-4.27	8.25	9.06	18.59	12.50	—
Large-Cap Core Funds Average		-4.18	-4.18	5.72	7.99	16.81	10.74	—
Vanguard Institutional Index Fund Institutional Shares (07/31/1990)	0.035	-4.28	-4.28	8.21	9.02	18.56	12.47	10.49
S&P 500 Index ³		-4.27	-4.27	8.25	9.06	18.59	12.50	—
Large-Cap Core Funds Average		-4.18	-4.18	5.72	7.99	16.81	10.74	—

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.

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.*

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International funds								
Vanguard Total International Stock Index Fund Institutional Shares (11/29/2010)	0.06	5.51	5.51	6.38	4.67	11.47	5.24	5.22
Spl Total International Stock Index ²		4.55	4.55	5.73	4.21	11.30	5.21	—
International Funds Average		6.38	6.38	5.65	5.23	11.33	5.07	—
Difference due to fair value pricing		0.91	0.91	0.49	0.50	0.23	0.08	—
Balanced funds								
Vanguard Target Retirement 2070 Trust Plus (04/06/2022)	0.055	-0.49	-0.49	6.75	—	—	—	6.82
Target Retirement 2070 Composite Index		-0.88	-0.88	6.55	6.30	14.09	8.71	—
Mixed-Asset Target 2060+ Funds Avg		-0.96	-0.96	5.22	5.81	13.83	—	—
Vanguard Target Retirement 2065 Fund (07/12/2017)	0.08	-0.54	-0.54	6.67	6.24	13.84	—	8.86
Target Retirement 2065 Composite Ix ³		-0.88	-0.88	6.55	6.30	14.09	8.71	—
Mixed-Asset Target 2060+ Funds Avg		-0.96	-0.96	5.22	5.81	13.83	—	—
Vanguard Target Retirement 2065 Trust Plus (07/24/2017)	0.055	-0.52	-0.52	6.72	6.29	13.92	—	9.47
Target Retirement 2065 Composite Ix ³		-0.88	-0.88	6.55	6.30	14.09	8.71	—
Mixed-Asset Target 2060+ Funds Avg		-0.96	-0.96	5.22	5.81	13.83	—	—
Vanguard Target Retirement 2060 Fund (01/19/2012)	0.08	-0.57	-0.57	6.65	6.23	13.83	8.38	9.66
Target Retirement 2060 Composite Ix ³		-0.88	-0.88	6.55	6.30	14.09	8.70	—
Mixed-Asset Target 2060 Funds Avg		-1.01	-1.01	5.13	5.81	13.62	—	—

Source: Data derived from Morningstar.

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Balanced funds (continued)								
Vanguard Target Retirement 2060 Trust Plus (03/23/2012)	0.055	-0.50	-0.50	6.74	6.29	13.93	8.49	9.43
Target Retirement 2060 Composite Ix ³		-0.88	-0.88	6.55	6.30	14.09	8.70	—
Mixed-Asset Target 2060 Funds Avg		-1.01	-1.01	5.13	5.81	13.62	—	—
Vanguard Target Retirement 2055 Fund (08/18/2010)	0.08	-0.56	-0.56	6.67	6.23	13.84	8.38	9.88
Target Retirement 2055 Composite Ix ³		-0.88	-0.88	6.55	6.30	14.09	8.70	—
Mixed-Asset Target 2055 Funds Avg		-0.95	-0.95	5.18	5.77	13.52	7.95	—
Vanguard Target Retirement 2055 Trust Plus (11/30/2011)	0.055	-0.53	-0.53	6.71	6.28	13.91	8.48	10.01
Target Retirement 2055 Composite Ix ³		-0.88	-0.88	6.55	6.30	14.09	8.70	—
Mixed-Asset Target 2055 Funds Avg		-0.95	-0.95	5.18	5.77	13.52	7.95	—
Vanguard Target Retirement 2050 Fund (06/07/2006)	0.08	-0.56	-0.56	6.65	6.22	13.84	8.40	7.75
Target Retirement 2050 Composite Ix ³		-0.88	-0.88	6.55	6.30	14.09	8.70	—
Mixed-Asset Target 2050 Funds Avg		-0.92	-0.92	5.08	5.65	13.28	7.76	—
Vanguard Target Retirement 2050 Trust Plus (08/15/2011)	0.055	-0.53	-0.53	6.73	6.28	13.92	8.49	9.87
Target Retirement 2050 Composite Ix ³		-0.88	-0.88	6.55	6.30	14.09	8.70	—
Mixed-Asset Target 2050 Funds Avg		-0.92	-0.92	5.08	5.65	13.28	7.76	—
Vanguard Target Retirement 2045 Fund (10/27/2003)	0.08	-0.40	-0.40	6.57	5.90	13.56	8.27	8.13
Target Retirement 2045 Composite Ix ³		-0.69	-0.69	6.44	5.97	13.79	8.56	—
Mixed-Asset Target 2045 Funds Avg		-0.72	-0.72	5.22	5.51	13.01	7.70	—

Source: Data derived from Morningstar.

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Balanced funds (continued)								
Vanguard Target Retirement 2045 Trust Plus (08/15/2011)	0.055	-0.36	-0.36	6.60	5.93	13.61	8.34	9.76
Target Retirement 2045 Composite Ix ³		-0.69	-0.69	6.44	5.97	13.79	8.56	—
Mixed-Asset Target 2045 Funds Avg		-0.72	-0.72	5.22	5.51	13.01	7.70	—
Vanguard Target Retirement 2040 Fund (06/07/2006)	0.08	-0.21	-0.21	6.42	5.47	12.36	7.80	7.41
Target Retirement 2040 Composite Ix ³		-0.46	-0.46	6.29	5.54	12.59	8.09	—
Mixed-Asset Target 2040 Funds Avg		-0.47	-0.47	5.19	5.18	12.08	7.25	—
Vanguard Target Retirement 2040 Trust Plus (08/15/2011)	0.055	-0.16	-0.16	6.46	5.51	12.43	7.89	9.42
Target Retirement 2040 Composite Ix ³		-0.46	-0.46	6.29	5.54	12.59	8.09	—
Mixed-Asset Target 2040 Funds Avg		-0.47	-0.47	5.19	5.18	12.08	7.25	—
Vanguard Target Retirement 2035 Fund (10/27/2003)	0.08	0.04	0.04	6.26	5.01	11.15	7.26	7.44
Target Retirement 2035 Composite Ix ³		-0.23	-0.23	6.14	5.11	11.40	7.55	—
Mixed-Asset Target 2035 Funds Avg		0.16	0.16	5.33	4.54	10.84	6.79	—
Vanguard Target Retirement 2035 Trust Plus (08/15/2011)	0.055	0.05	0.05	6.29	5.06	11.23	7.36	8.90
Target Retirement 2035 Composite Ix ³		-0.23	-0.23	6.14	5.11	11.40	7.55	—
Mixed-Asset Target 2035 Funds Avg		0.16	0.16	5.33	4.54	10.84	6.79	—
Vanguard Target Retirement 2030 Fund (06/07/2006)	0.08	0.21	0.21	6.03	4.51	9.94	6.70	6.70
Target Retirement 2030 Composite Ix ³		-0.01	-0.01	5.97	4.67	10.20	7.00	—
Mixed-Asset Target 2030 Funds Avg		0.71	0.71	5.32	3.81	9.04	5.89	—

Source: Data derived from Morningstar.

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Balanced funds (continued)								
Vanguard Target Retirement 2030 Trust Plus (08/15/2011)	0.055	0.25	0.25	6.11	4.59	10.02	6.80	8.27
Target Retirement 2030 Composite Ix ³		-0.01	-0.01	5.97	4.67	10.20	7.00	—
Mixed-Asset Target 2030 Funds Avg		0.71	0.71	5.32	3.81	9.04	5.89	—
Vanguard Target Retirement 2025 Fund (10/27/2003)	0.08	0.64	0.64	6.10	4.08	8.77	6.16	6.62
Target Retirement 2025 Composite Ix ³		0.44	0.44	6.00	4.24	9.04	6.45	—
Mixed-Asset Target 2025 Funds Avg		1.05	1.05	5.34	3.31	7.52	5.16	—
Vanguard Target Retirement 2025 Trust Plus (08/15/2011)	0.055	0.68	0.68	6.14	4.16	8.86	6.26	7.65
Target Retirement 2025 Composite Ix ³		0.44	0.44	6.00	4.24	9.04	6.45	—
Mixed-Asset Target 2025 Funds Avg		1.05	1.05	5.34	3.31	7.52	5.16	—
Vanguard Target Retirement 2020 Fund (06/07/2006)	0.08	1.13	1.13	5.97	3.50	7.40	5.47	5.99
Target Retirement 2020 Composite Ix ³		0.96	0.96	5.89	3.61	7.61	5.73	—
Mixed-Asset Target 2020 Funds Avg		1.37	1.37	5.60	3.26	6.88	4.68	—
Vanguard Target Retirement 2020 Trust Plus (08/15/2011)	0.055	1.13	1.13	6.00	3.54	7.45	5.55	6.91
Target Retirement 2020 Composite Ix ³		0.96	0.96	5.89	3.61	7.61	5.73	—
Mixed-Asset Target 2020 Funds Avg		1.37	1.37	5.60	3.26	6.88	4.68	—
Vanguard Target Retirement Income Fund (10/27/2003)	0.08	1.37	1.37	5.82	3.11	5.14	4.15	4.96
Target Retirement Income Compos. Ix ³		1.21	1.21	5.73	3.18	5.31	4.36	—
Spl Mixed-Asset Target Today FdsAvg ⁴		1.35	1.35	5.23	2.82	5.32	3.77	—

Source: Data derived from Morningstar.

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Balanced funds (continued)								
Vanguard Target Retirement Income Trust Plus (08/15/2011)	0.055	1.34	1.34	5.83	3.12	5.17	4.20	4.80
Target Retirement Income Compos. Ix ³		1.21	1.21	5.73	3.18	5.31	4.36	—
Spl Mixed-Asset Target Today FdsAvg ⁴		1.35	1.35	5.23	2.82	5.32	3.77	—
Bond funds								
Vanguard Total Bond Market Index Fund Institutional Shares (09/18/1995)	0.025	2.77	2.77	4.88	0.54	-0.40	1.45	4.23
Spliced Bloomberg USAgg Flt Adjlx ⁵		2.75	2.75	4.87	0.56	-0.36	1.49	—
Spl Interm Inv-Grade Debt Funds Avg ⁶		2.66	2.66	4.99	0.57	0.36	1.47	—

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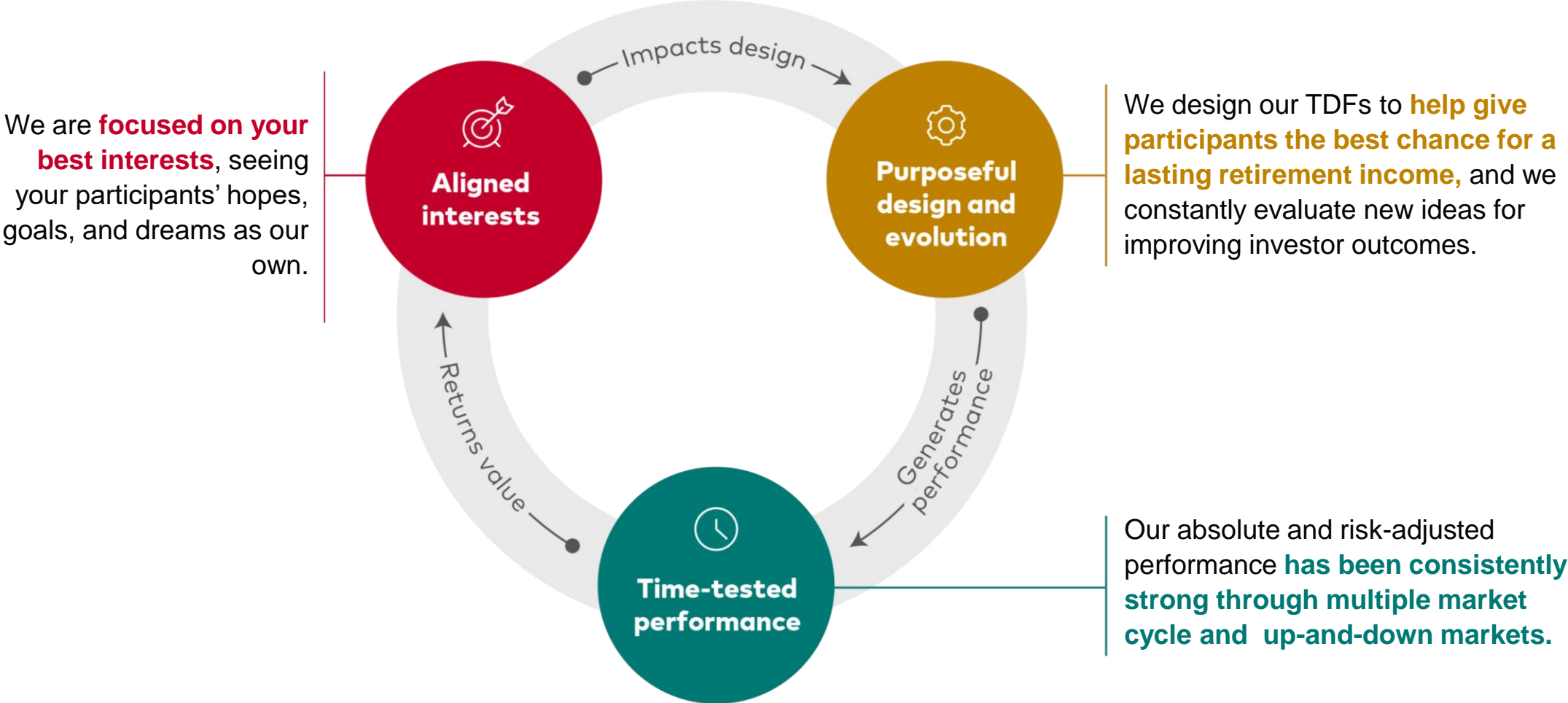
Target Retirement Due Diligence

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

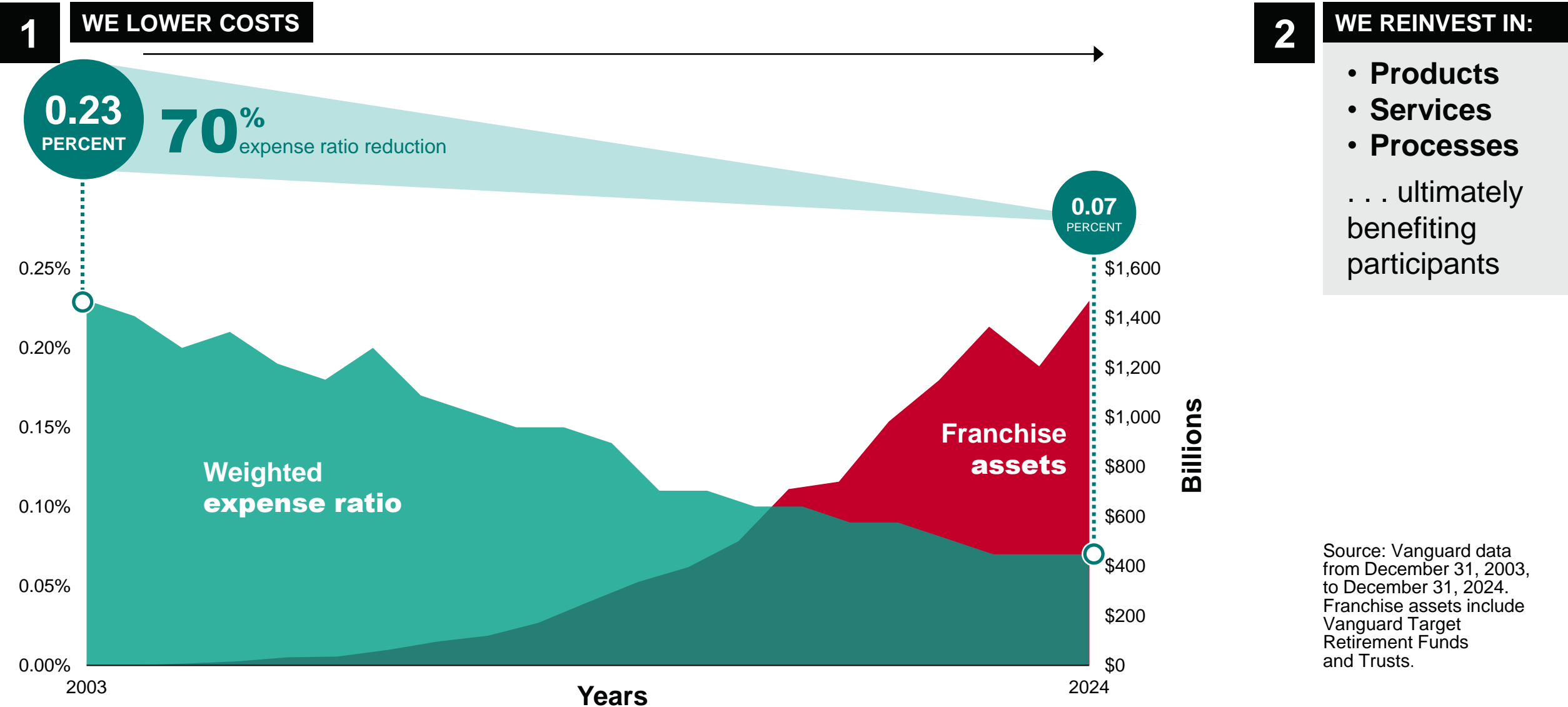
Our key TDF components that power participant success



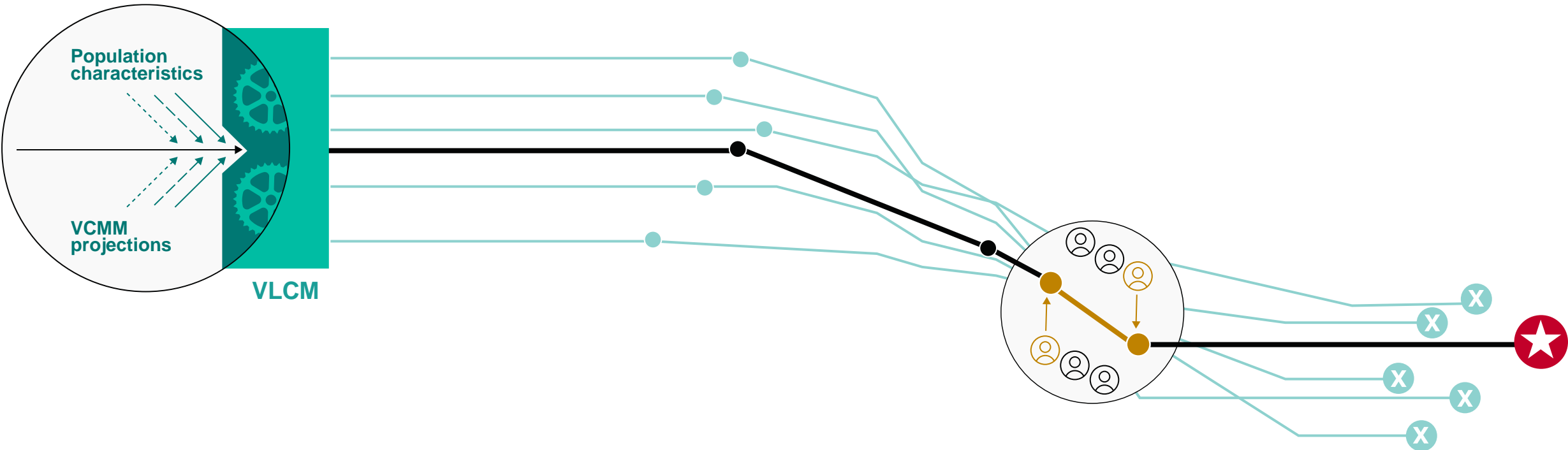


How we return value to you and your participants

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



A glide path designed to help improve 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

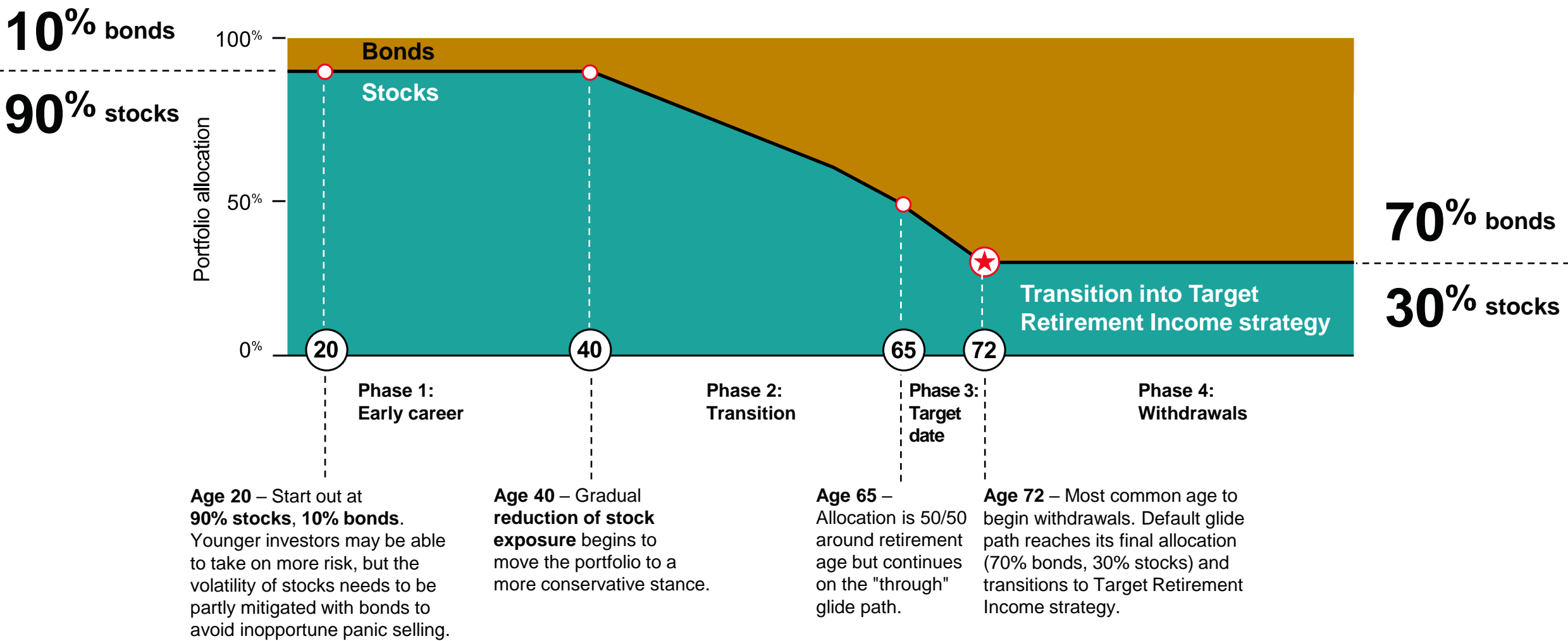
Practical considerations and observed participant behavior taken into account to meet the needs of real-world TDF investors

Outputs

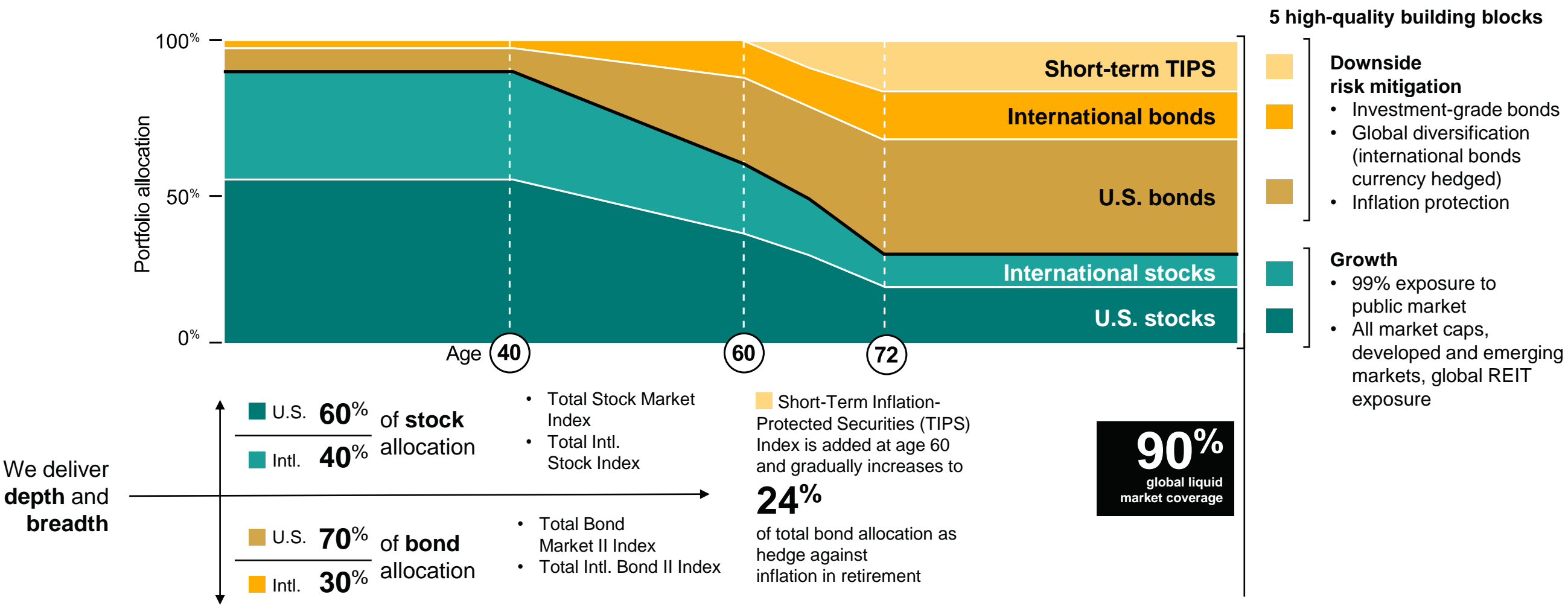
- Retirement income sufficiency
- Wealth accumulation
- Portfolio volatility
- Maximum drawdown
- Probability of positive TDF balance at ages 85 and 95

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, 2024.

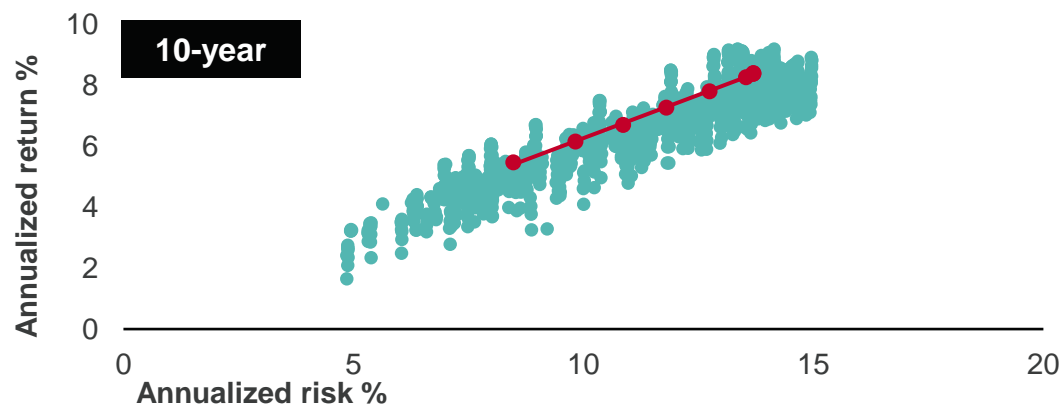
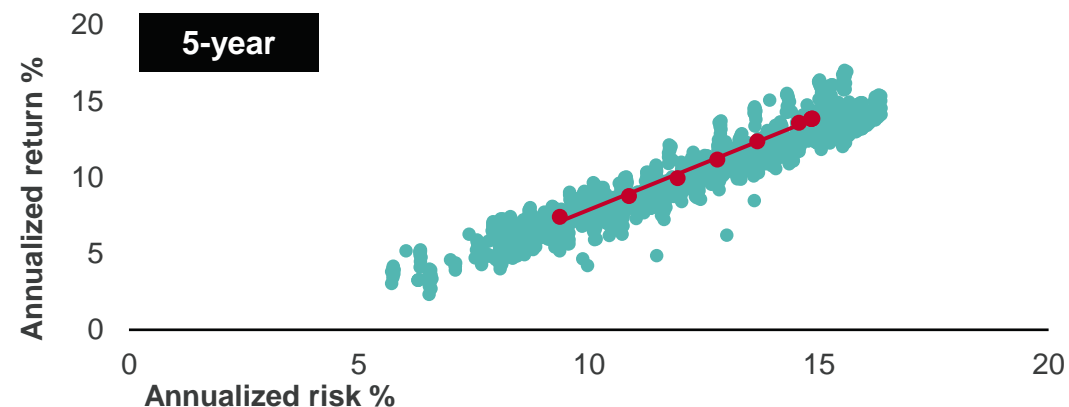
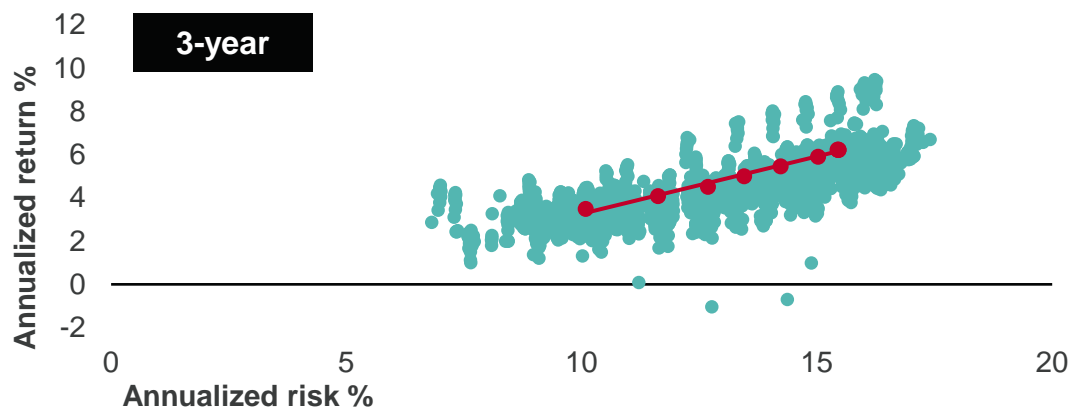
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A history of consistently strong risk-adjusted performance

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

● TDF peers in Morningstar universe ● Vanguard Target Retirement Funds



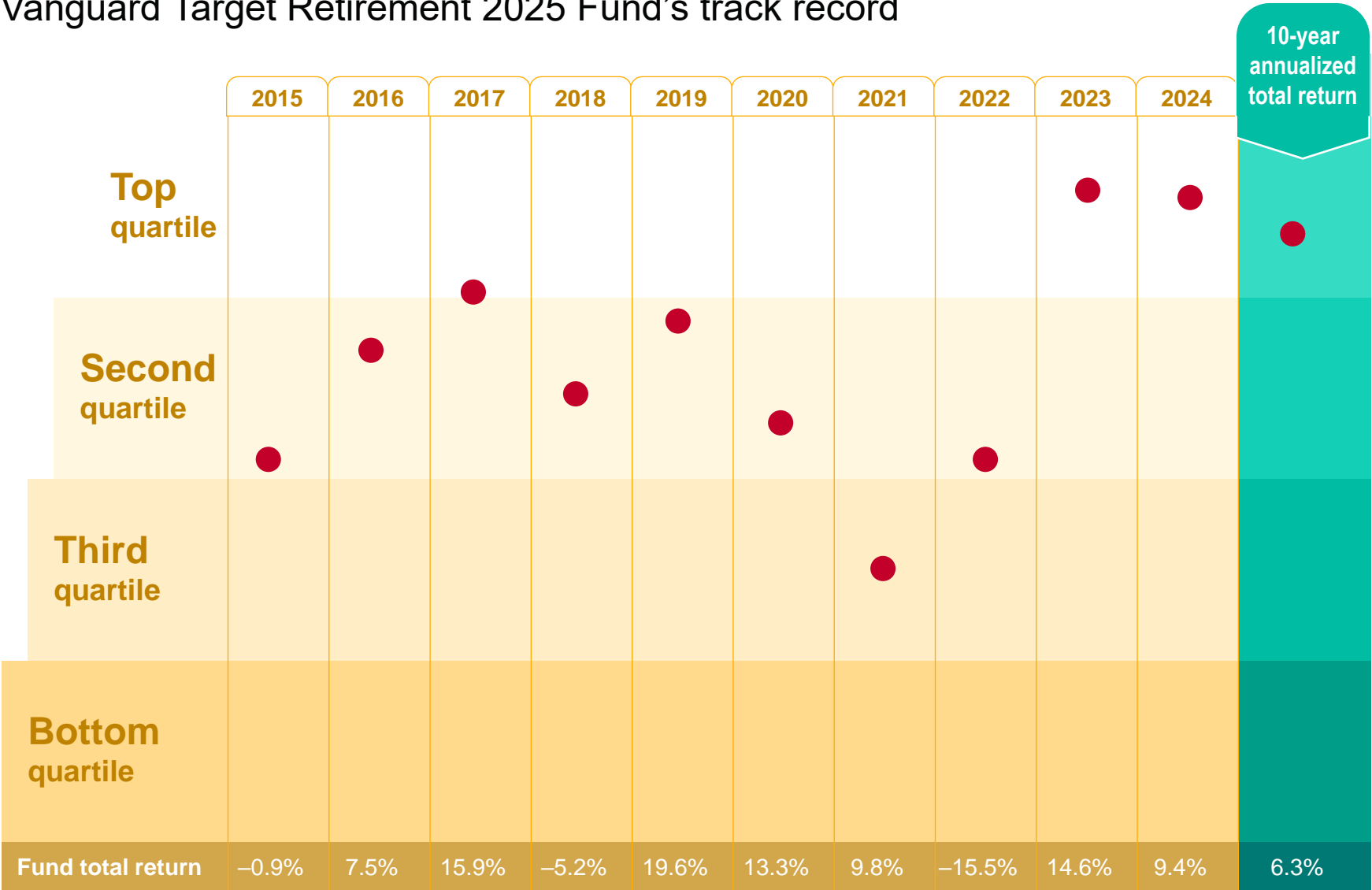
Standard deviation was used for annualized risk. Results will vary for other time periods. All funds in the Morningstar peer group with a minimum 3-, 5-, or 10-year history, respectively, were included in the comparison. There may be other material differences between products that must be considered 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.**

Sources: Vanguard and Morningstar, Inc., as of March 31, 2025. Vanguard Investor Shares highlighted.



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 2015 through 2024. 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 206 in 2015 to 193 in 2024. Only 107 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 March 31, 2025.

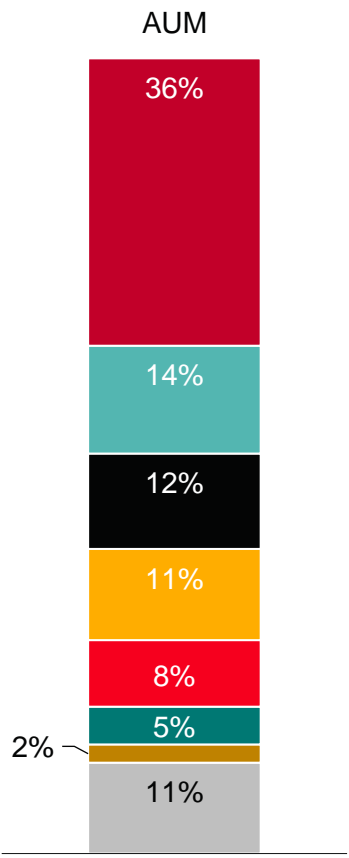
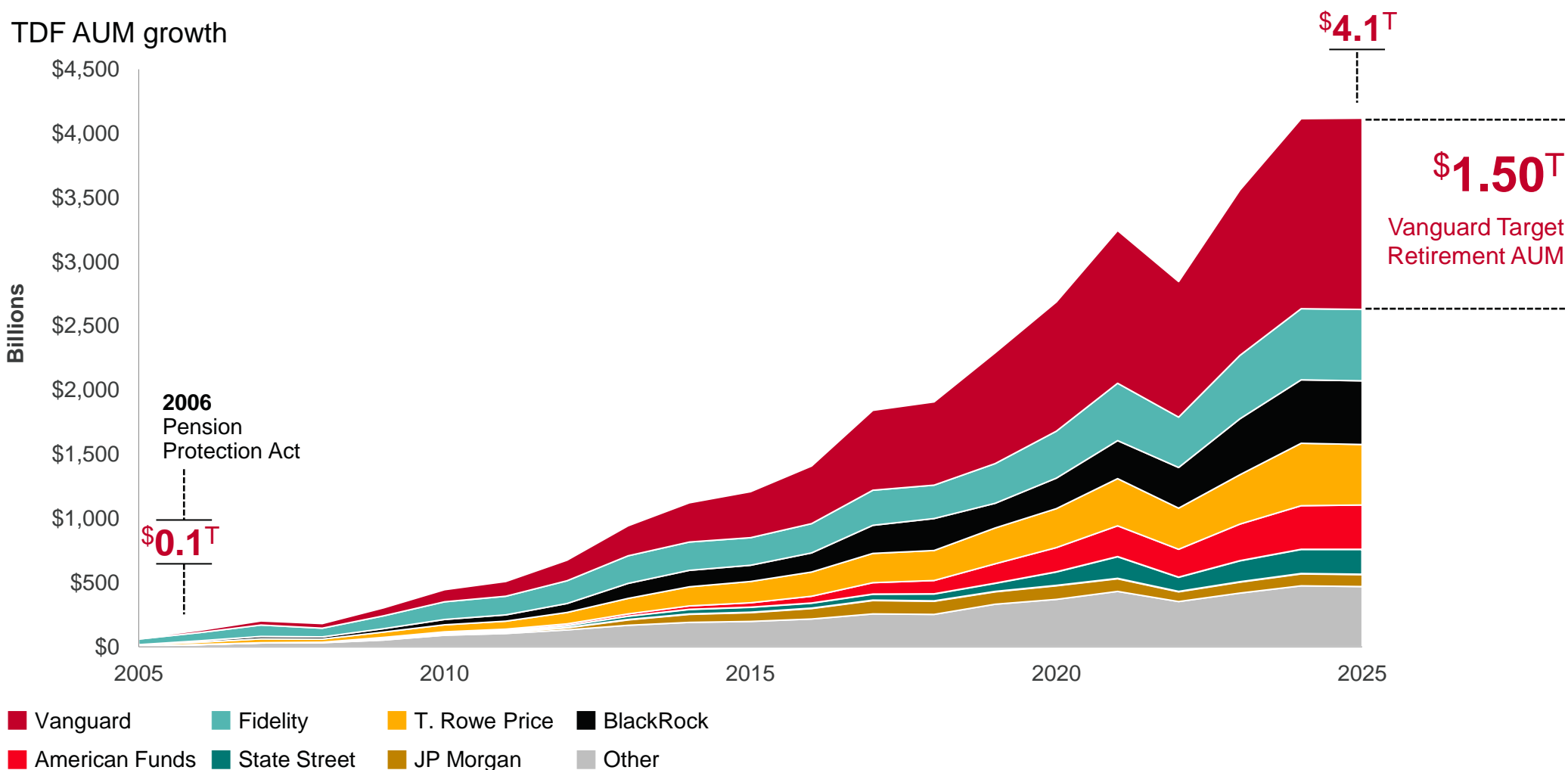
Sources: Vanguard and Morningstar, Inc., as of December 31, 2024.

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 March 31, 2025.

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Market environment

Ranking by returns (%)

2020	2021	2022	2023	2024	2Q 2024	3Q 2024	4Q 2024	1Q 2025
CRSP 21.0	REIT 43.1	COM 16.1	CRSP 26.0	CRSP 23.8	CRSP 3.3	REIT 16.1	CRSP 2.6	COM 8.9
FTSE 11.2	COM 27.1	CASH 1.5	FTSE 15.8	REIT 8.8	COM 2.9	FTSE 8.4	CASH 1.2	FTSE 4.6
AGG 7.5	CRSP 25.7	STPS -2.7	REIT 13.7	HYB 8.2	STPS 1.4	EMB 6.5	IAGG 0.2	STPS 3.0
HYB 7.1	FTSE 8.8	HYB -11.2	HYB 13.4	EMB 5.9	CASH 1.4	CRSP 6.2	HYB 0.2	AGG 2.8
EMB 5.6	STPS 5.3	IAGG -12.7	EMB 10.5	FTSE 5.5	HYB 1.1	HYB 5.3	STPS -0.1	EMB 2.2
STPS 5.1	HYB 5.3	AGG -13.0	IAGG 8.8	CASH 5.5	FTSE 0.9	AGG 5.2	COM -0.5	CASH 1.1
IAGG 4.7	CASH 0.1	FTSE -16.1	AGG 5.5	COM 5.4	EMB 0.3	IAGG 3.9	EMB -2.1	REIT 1.1
CASH 0.6	AGG -1.5	EMB -17.1	CASH 5.3	STPS 5.0	REIT 0.1	STPS 2.5	AGG -3.1	HYB 1.0
COM -3.5	EMB -1.8	CRSP -19.5	STPS 4.5	IAGG 3.8	AGG 0.1	CASH 1.4	REIT -6.1	IAGG -0.1
REIT -7.6	IAGG -2.1	REIT -24.5	COM -7.9	AGG 1.3	IAGG -0.4	COM 0.7	FTSE -7.5	CRSP -4.8

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	-4.82	7.09	8.11	18.10	11.75
FTSE	FTSE Global All Cap ex U.S. Index	4.55	5.73	4.21	11.30	5.21
AGG	Bloomberg U.S. Aggregate Bond Index	2.78	4.88	0.52	-0.40	1.46
IAGG	Bloomberg Global Agg ex U.S. Float Adj RIC Cap Index (Hedged)	-0.12	3.58	1.20	0.14	1.84
STPS	Bloomberg U.S. 0-5 Year TIPS Index	3.04	6.98	3.24	4.10	2.84
Other indexes						
CASH	3-Month T-Bill	1.10	5.17	4.42	2.68	1.90
HYB	Bloomberg U.S. Corporate High Yield Index	1.00	7.69	4.98	7.29	5.01
EMB	Bloomberg USD Emerging Markets Gov RIC Cap Index	2.22	6.93	3.10	3.25	3.10
REIT	MSCI U.S. REIT Index	1.07	10.26	-0.55	11.32	5.28
COM	Bloomberg Commodity Index	8.88	12.28	-0.77	14.51	2.77

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 March 31, 2025.

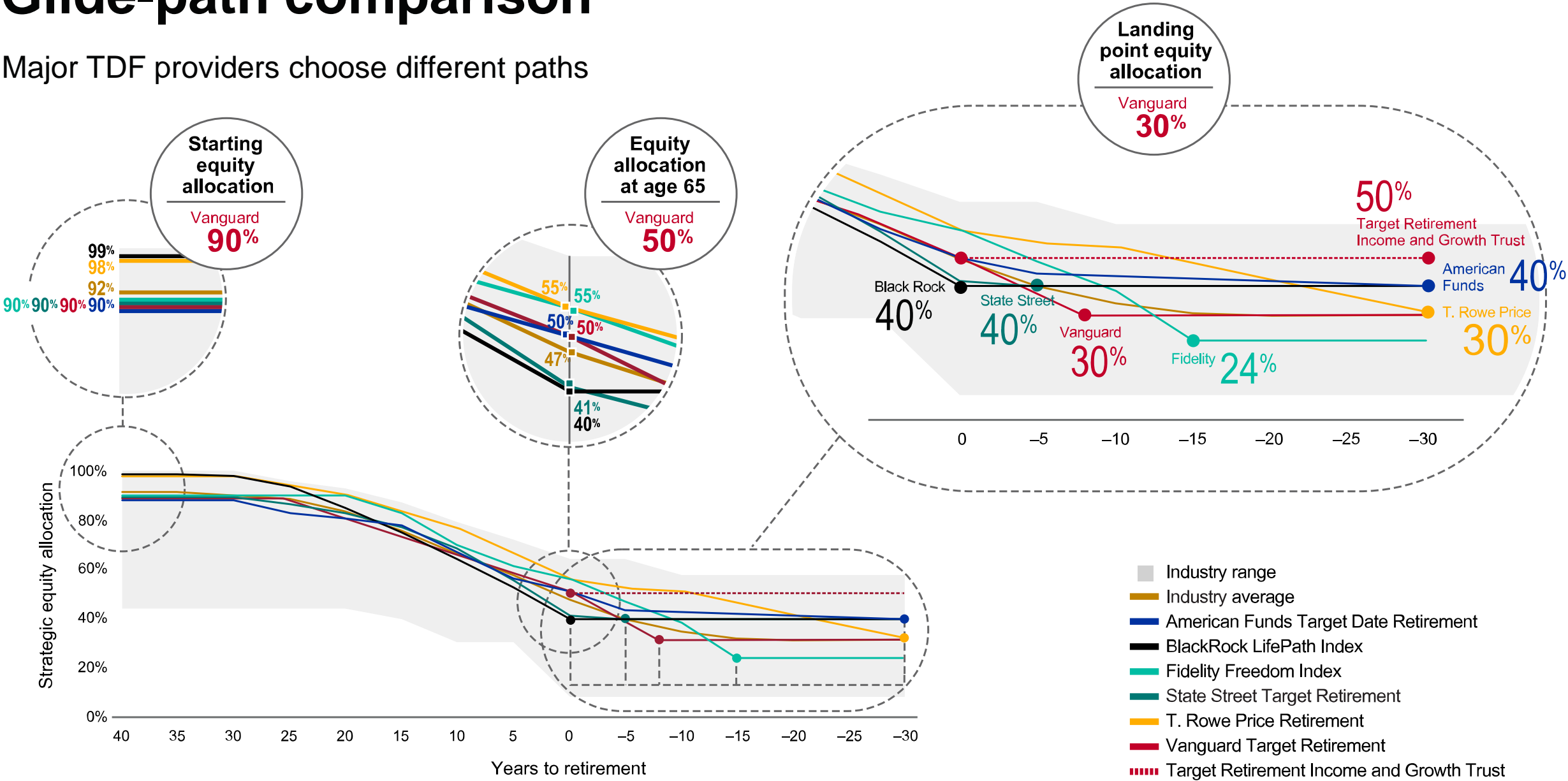
Note: Beginning 3Q 2021, the benchmark shown for the EMB category changed from Bloomberg Emerging Markets Sovereign Index USD to Bloomberg USD Emerging Markets Gov RIC Cap Index.

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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.

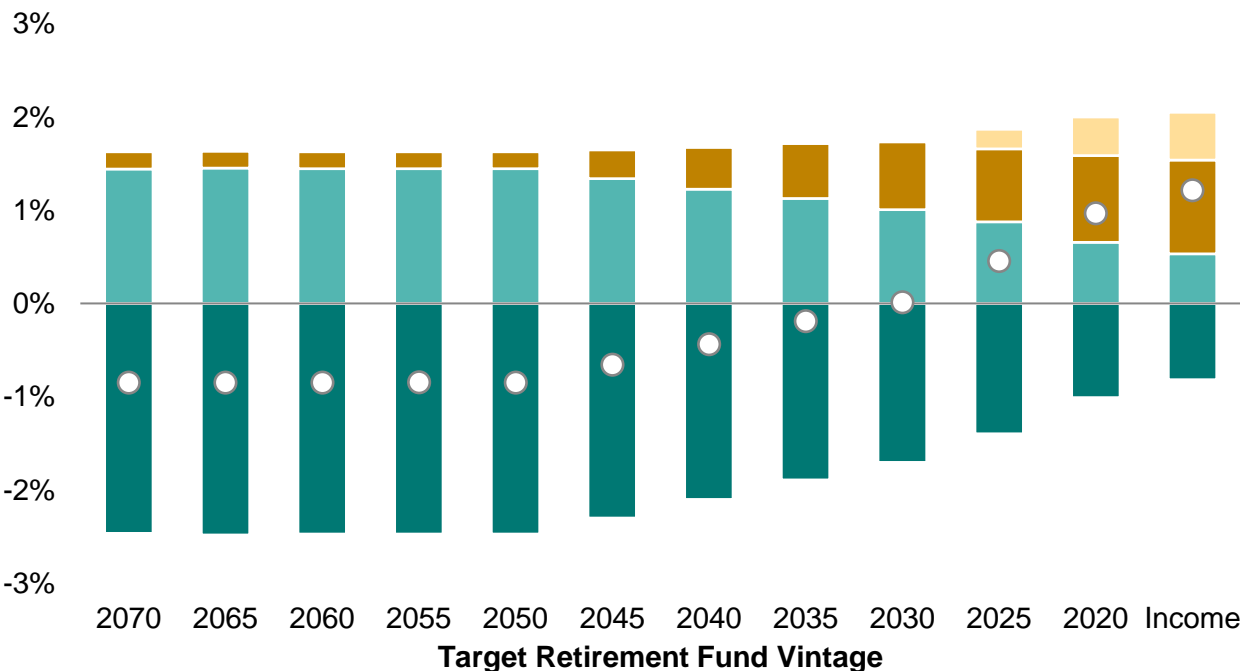
Sources: Vanguard and competitor websites; data as of December 31, 2024; Vanguard calculation for industry average.

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Performance and attribution overview

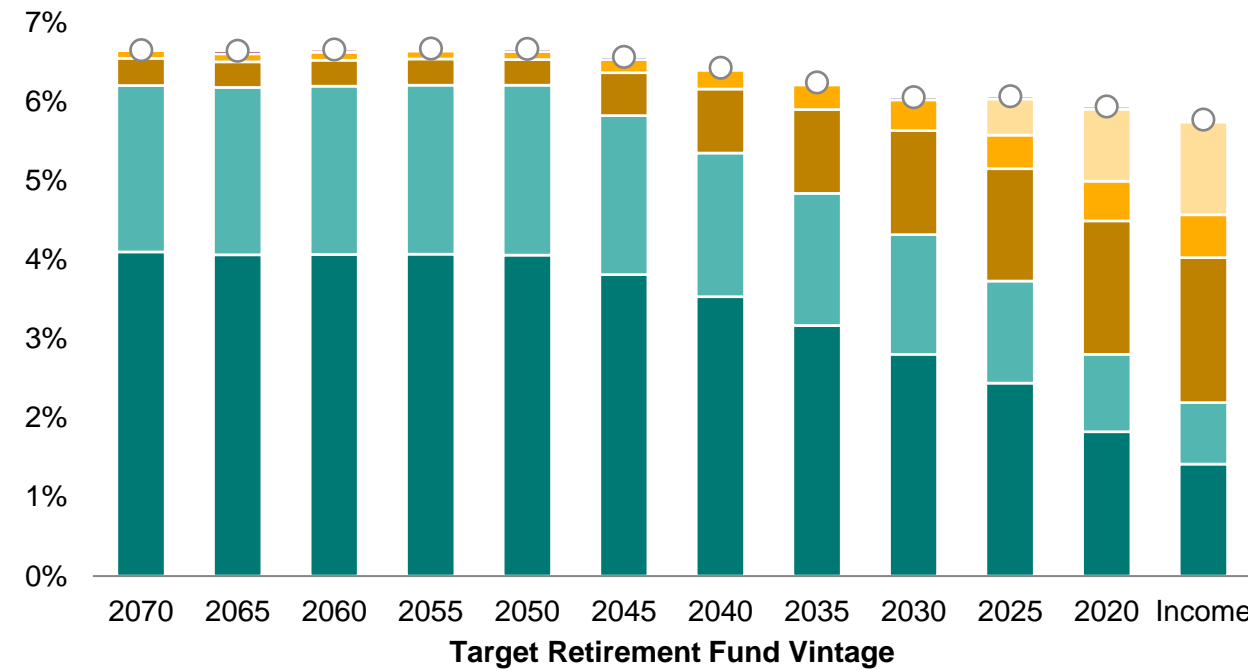
Absolute return contribution

3-month return contribution



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

12-month return contribution

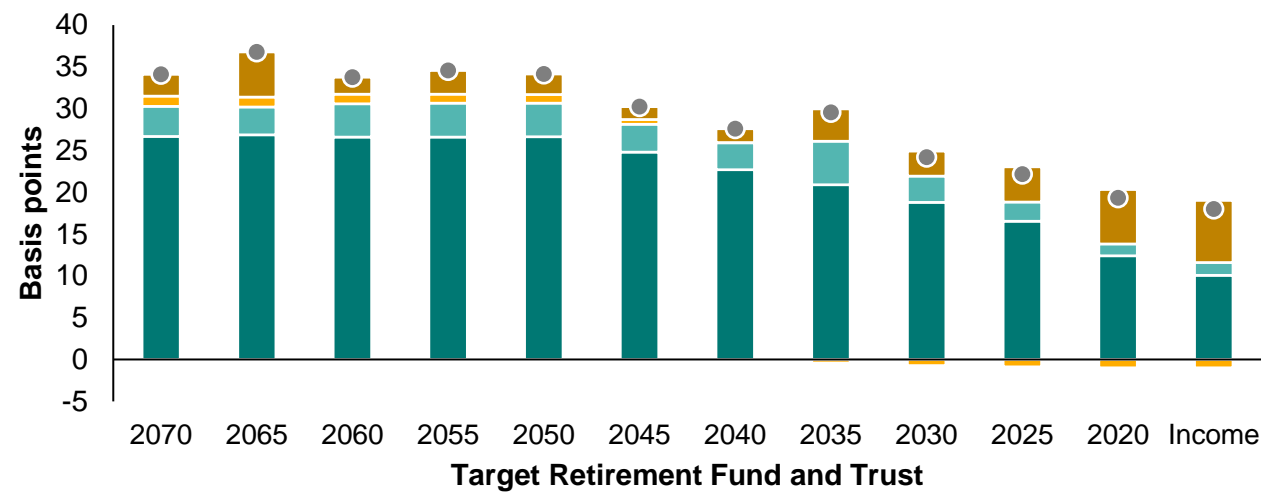


The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance 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 March 31, 2025.

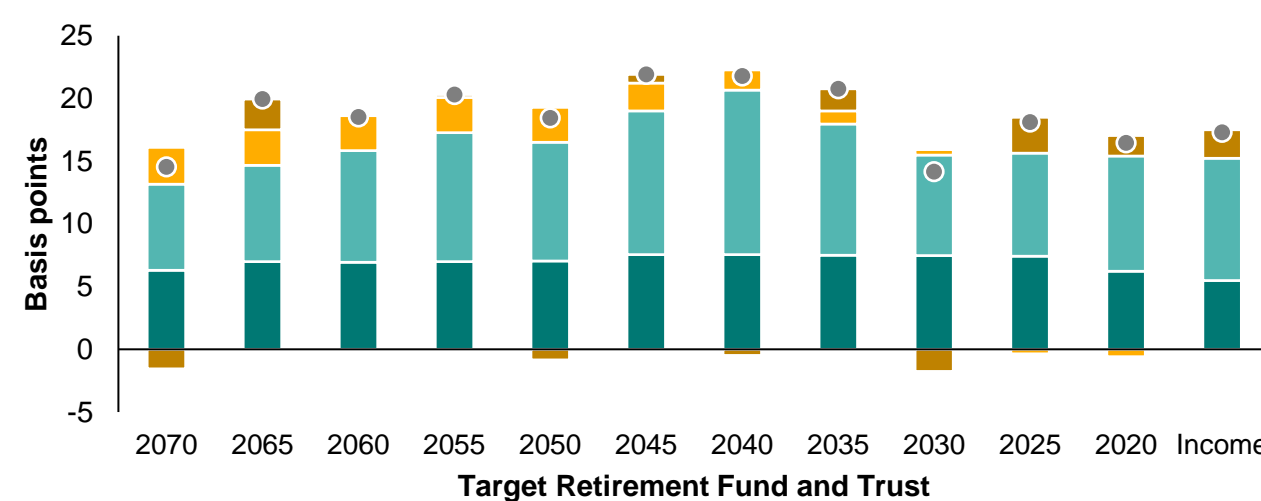
Benchmark relative return attribution

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

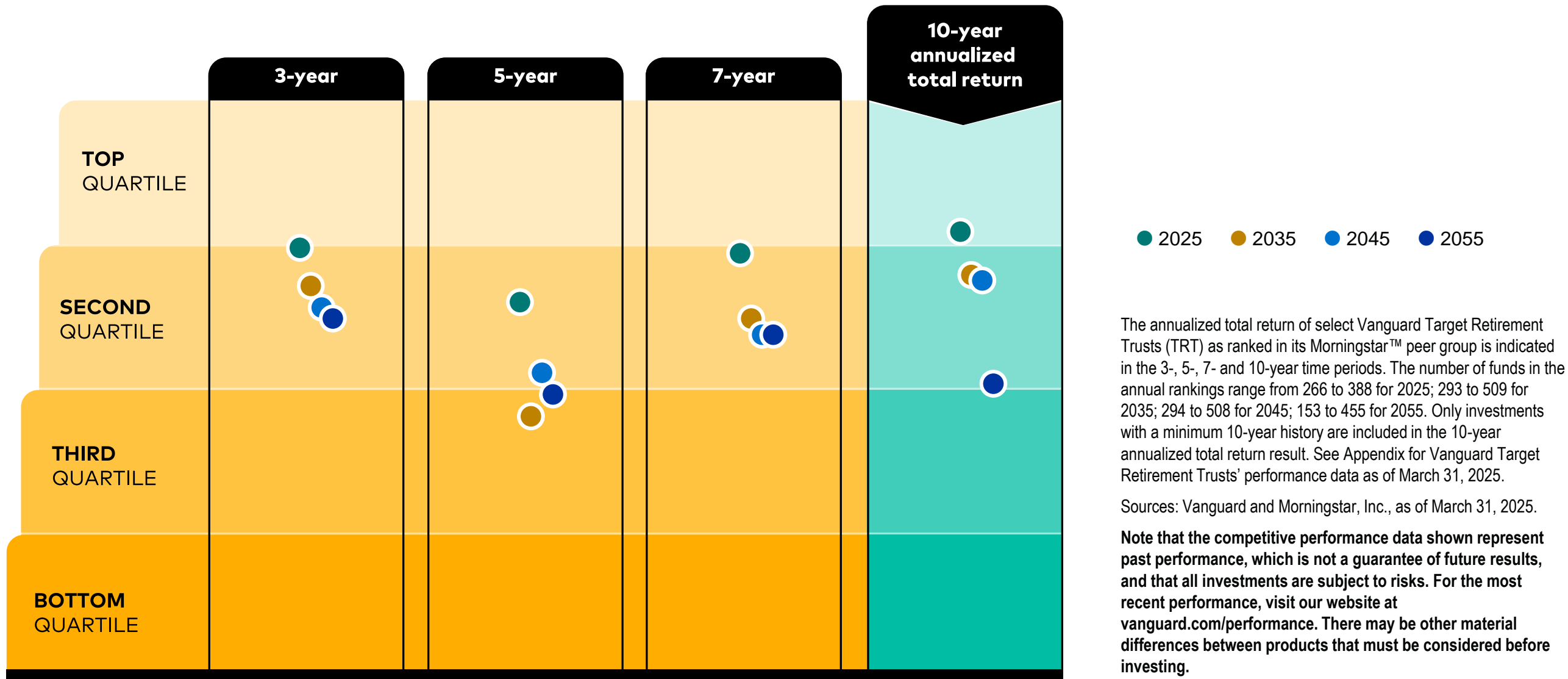


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Sources: Vanguard and Morningstar, as of March 31, 2025. See Disclosures slide for composition of composite benchmarks.
* On January 14, 2021, Bloomberg changed its index pricing time from 3 p.m., Eastern time, to 4 p.m., Eastern time. The time change affects the three-year figures.

Strong long-term performance relative to peer group

Vanguard Target Retirement Trust Plus vintages' track record



Notable updates

The case for international equities in target-date funds

Given the potential for a multidecade investment timeline and that the primary purpose of a TDF is to help investors prepare for retirement, Vanguard prioritizes a strategic asset allocation that can deliver consistent and reliable results. This approach has been beneficial across multiple market cycles and remains a key investment principle behind Vanguard Target Retirement Funds.

This quarter, we emphasize the disadvantage of chasing outperformance at the expense of portfolio diversification.

[View full article](#)



Key takeaways



First look: Enhanced rebalancing policy outcomes

Excess returns for the quarter were positive, primarily driven by fair-value pricing. As anticipated, the allocation impact remained minimal and maintained close alignment to the strategic asset allocation. This outcome highlights the effectiveness of our rebalancing policy in minimizing forced trading and transaction costs, which should ultimately lead to better absolute returns over the long term.



Vanguard Target Retirement Funds shine during market turmoil

Mixed market performance in the first quarter led to a reshuffling of peer-relative results and a broad improvement in Vanguard's peer rankings across the glide path, thanks to our more moderate asset allocation. Amid the market volatility experienced in April 2025, many vintages reached the top quartile YTD and top decile over the 1-year period, demonstrating their resiliency during turbulent times.



The importance of global diversification

In recent years, many have questioned our allocation to international stocks in the Target Retirement Funds, especially given the strong performance of the U.S. stock market. Vanguard has steadfastly committed to global diversification across both equity and fixed income allocations as a best practice in TDF design. This commitment paid off in the first quarter of 2025, with U.S. equities declining by 4.8%, while international equities rose by 5.5%.

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 March 31, 2025.

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Committed to ongoing research and thought leadership

Current research priorities

Glide-path and asset allocation

Hybrid annuity target-date funds

Annual glidepath revalidation

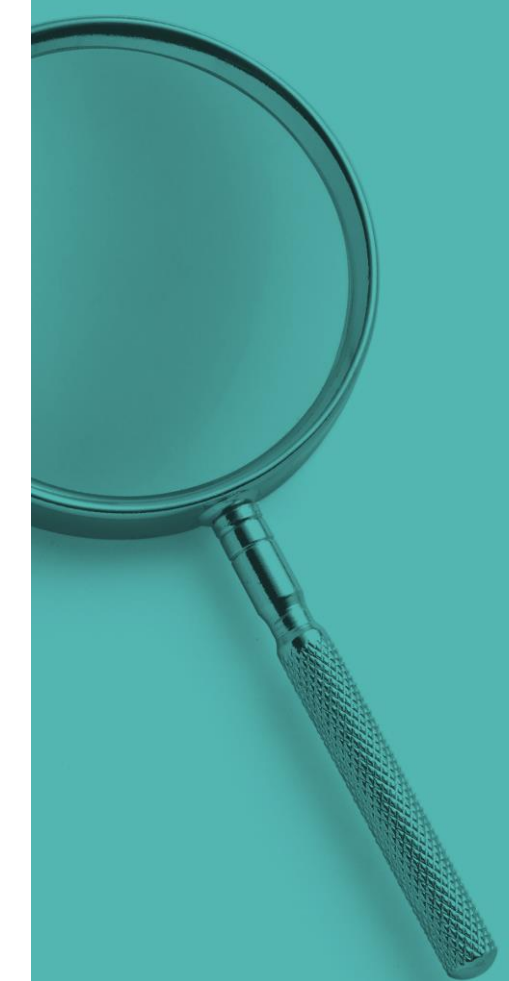
Personalization in DC plans: TDFs and advice

Vanguard viewpoints

- Are Vanguard target-date funds equipped to weather market volatility?
2Q 2025
- TDF glide-path essentials: Setting the right starting point
4Q 2024
- How America is saving with Vanguard Target Retirement Funds
3Q 2024
- Vanguard's approach to target-date fund rebalancing
2Q 2024

Research papers

- Advice accounts for differences in saving and spending behaviors
SEPTEMBER 2024
- From theory to practice: Guaranteed income and hybrid annuity target-date funds
JUNE 2024
- How America Saves 2024
MAY 2024



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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



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

Sujatha Srinivasan, 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, Workplace Solutions
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)
Ian Kresnak, CFA, Chief of Staff, Investment Strategy Group (Nonvoting Member)

Source: Vanguard.

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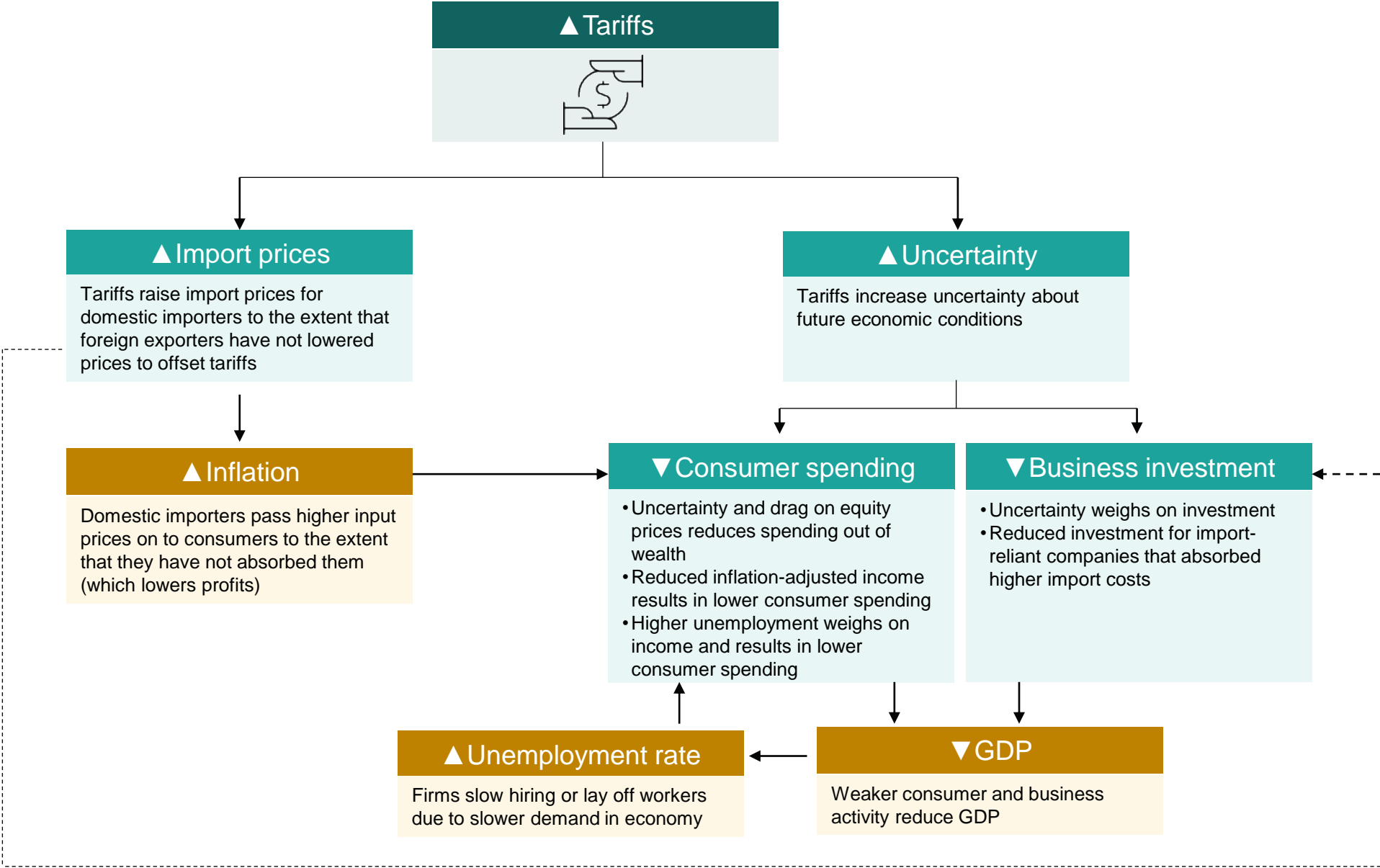
Questions?



Thank you
for your time
and continued
confidence.

Global Market Matters Tariff

Anatomy of a tariff shock



10-year asset class return expectations summary

Percentile	U.S. equity	U.S. large-cap	U.S. small-cap	U.S. growth	U.S. value	U.S. REITs	Global ex-U.S. equities
95th	14.5%	14.4%	17.2%	13.5%	16.4%	12.3%	15.2%
75th	9.0%	8.8%	10.9%	7.8%	10.7%	7.4%	10.5%
50th	5.4%	5.2%	6.8%	4.2%	7.0%	4.0%	7.2%
25th	1.9%	1.8%	2.7%	0.7%	3.5%	0.8%	4.2%
5th	-3.1%	-3.3%	-3.2%	-4.6%	-1.7%	-3.7%	-0.3%
Median volatility	16.4%	16.2%	21.0%	17.4%	19.7%	19.3%	20.5%

Percentile	U.S. bonds	U.S. Treasury bonds	U.S. intermediate TIPS	U.S. MBS	U.S. high-yield corporate	Emerging sovereign bonds	Global ex-U.S. bonds hedged	U.S. inflation	U.S. cash
95th	6.1%	6.0%	5.6%	6.1%	7.6%	8.4%	7.0%	3.7%	5.7%
75th	5.2%	5.0%	4.3%	5.4%	6.2%	7.0%	5.7%	2.7%	4.4%
50th	4.5%	4.3%	3.4%	4.9%	5.4%	6.0%	4.8%	2.1%	3.6%
25th	3.9%	3.7%	2.6%	4.2%	4.4%	5.0%	4.0%	1.5%	2.8%
5th	2.9%	2.7%	1.5%	3.2%	3.1%	3.5%	2.7%	0.5%	1.7%
Median volatility	6.4%	6.9%	5.2%	4.2%	10.0%	12.0%	5.1%	1.9%	1.1%

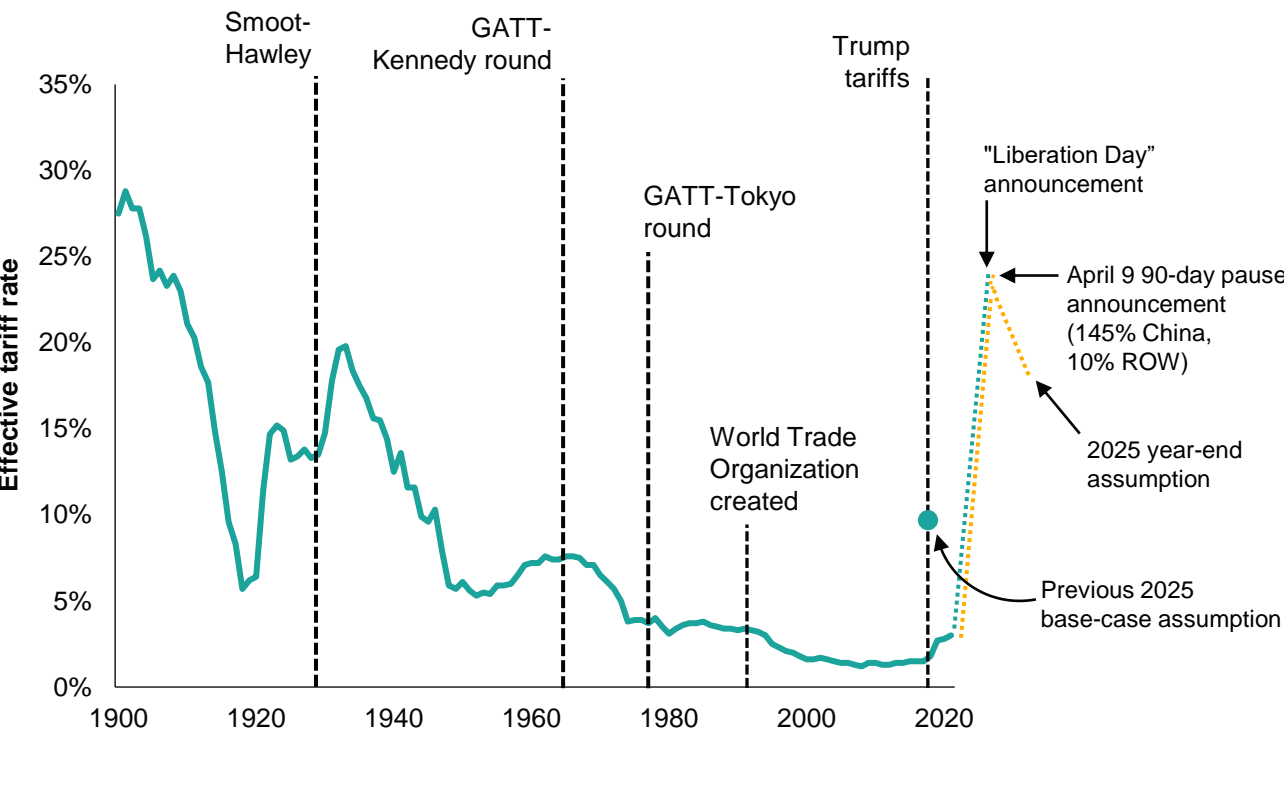
IMPORTANT: The projections and other information generated by the Vanguard Capital Markets Model regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Distribution of return outcomes from VCMM are derived from 10,000 simulations for each modeled asset class. Simulations as of March 31, 2025. Results from the model may vary with each use and over time. For more information, please see the “Important information” section.

Notes: The forecast corresponds to the distribution of 10,000 VCMM simulations for 10-year annualized nominal returns in USD for the asset classes highlighted here. Median volatility is the 50th percentile of an asset class’s distribution of annualized standard deviation of returns. Asset class returns do not take into account management fees and expenses, nor do they reflect the effect of taxes. Returns do reflect reinvestment of dividends and capital gains. Indexes are unmanaged; therefore, direct investment is not possible. See the “Important information” section for further details on asset classes. U.S. inflation is the 10-year average of year-over-year U.S. headline CPI (Consumer Price Index).

Source: Vanguard calculations, as of March 31, 2025.

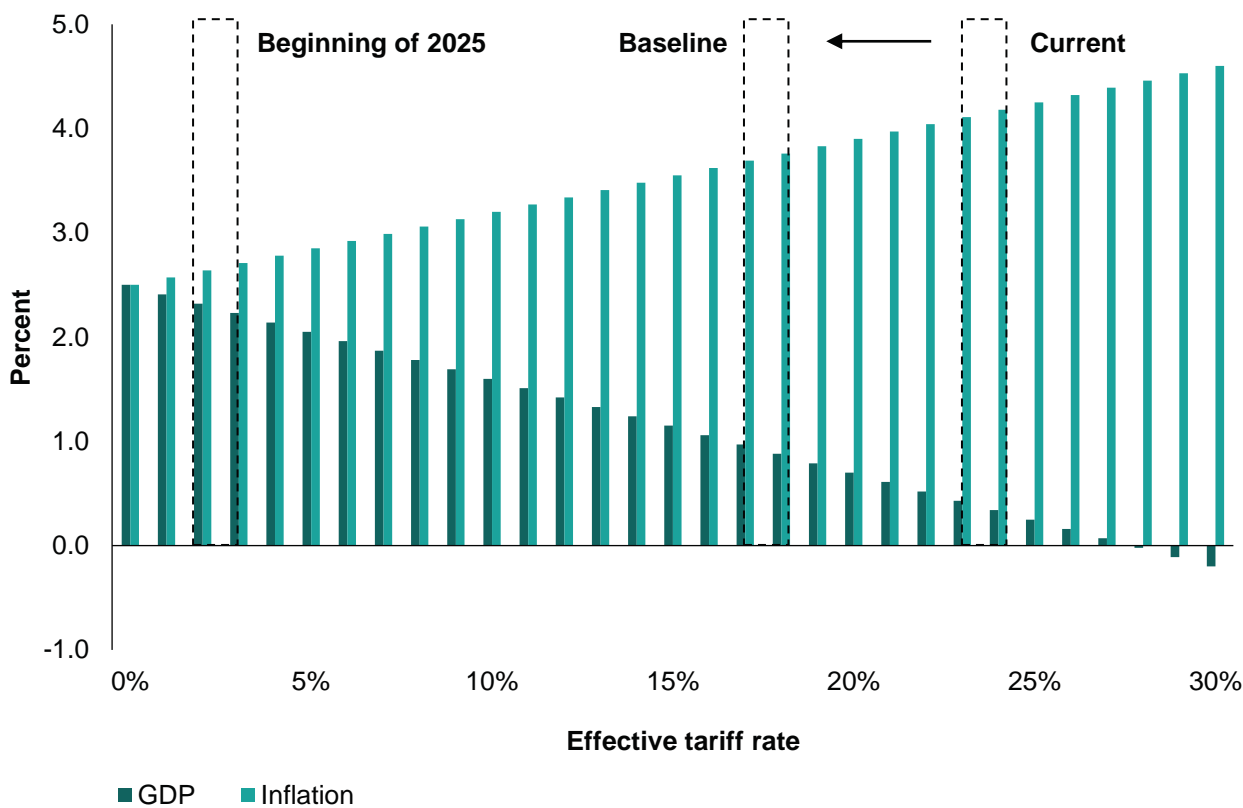
Tariff situation holds the key for economic outlook

Effective tariff rate



Notes: The chart shows the effective tariff rate throughout history for the United States along with notable tariff and trade agreements. GATT stands for General Agreements on Tariffs and Trade. The sensitivity of a 1 percentage point increase in the effective tariff rate is -0.10% on growth and 0.08% on inflation.
Sources: Vanguard calculations based on data from the U.S. International Trade Commission.

Guidelines for GDP and inflation impacts



Notes: Chart shows the estimated impact on U.S. GDP growth and inflation forecasts based on assumed levels of the effective tariff rate.
Sources: Vanguard calculations as of April 10, 2025.

Appendix: Detailed performance

Vanguard Target Retirement Fund and Trust performance

	Expense ratio	3 months	1 year	Annualized (as of March 31, 2025)				Inception date
				3 years	5 years	10 years	Since inception	
Vanguard Target Retirement Income Vintage								
Fund	0.08	1.37	5.82	3.11	5.14	4.15	4.96	10/27/2003
Trust II	0.075	1.33	5.80	3.10	5.15	4.18	4.70	2/29/2008
Target Retirement Income Composite Index ¹	—	1.21	5.73	3.18	5.31	4.36	—	—
Vanguard Target Retirement 2020 Vintage								
Fund	0.08	1.13	5.97	3.50	7.40	5.47	5.99	6/7/2006
Trust II	0.075	1.13	5.99	3.52	7.43	5.52	5.88	2/29/2008
Target Retirement 2020 Composite Index ¹	—	0.96	5.89	3.61	7.61	5.73	—	—
Vanguard Target Retirement 2025 Vintage								
Fund	0.08	0.64	6.10	4.08	8.77	6.16	6.62	10/27/2003
Trust II	0.075	0.67	6.12	4.13	8.84	6.23	6.34	2/29/2008
Target Retirement 2025 Composite Index ¹	—	0.44	6.00	4.24	9.04	6.45	—	—
Vanguard Target Retirement 2030 Vintage								
Fund	0.08	0.21	6.03	4.51	9.94	6.70	6.70	6/7/2006
Trust II	0.075	0.25	6.09	4.57	9.99	6.77	6.68	2/29/2008
Target Retirement 2030 Composite Index ¹	—	−0.01	5.97	4.67	10.20	7.00	—	—

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 March 31, 2025)				Inception date
				3 years	5 years	10 years	Since inception	
Vanguard Target Retirement 2035 Vintage								
Fund	0.08	0.04	6.26	5.01	11.15	7.26	7.44	10/27/2003
Trust II	0.075	0.04	6.26	5.03	11.21	7.34	7.11	2/29/2008
Target Retirement 2035 Composite Index ¹	—	−0.23	6.14	5.11	11.40	7.55	—	—
Vanguard Target Retirement 2040 Vintage								
Fund	0.08	−0.21	6.42	5.47	12.36	7.80	7.41	6/7/2006
Trust II	0.075	−0.16	6.43	5.48	12.41	7.87	7.52	2/29/2008
Target Retirement 2040 Composite Index ¹	—	−0.46	6.29	5.54	12.59	8.09	—	—
Vanguard Target Retirement 2045 Vintage								
Fund	0.08	−0.40	6.57	5.90	13.56	8.27	8.13	10/27/2003
Trust II	0.075	−0.36	6.59	5.91	13.59	8.32	7.76	2/29/2008
Target Retirement 2045 Composite Index ¹	—	−0.69	6.44	5.97	13.79	8.56	—	—
Vanguard Target Retirement 2050 Vintage								
Fund	0.08	−0.56	6.65	6.22	13.84	8.40	7.75	6/7/2006
Trust II	0.075	−0.55	6.70	6.26	13.89	8.46	7.86	2/29/2008
Target Retirement 2050 Composite Index ¹	—	−0.88	6.55	6.30	14.09	8.70	—	—

Past performance is not a guarantee of future results.

Source: Data derived from Morningstar, Inc.

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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 March 31, 2025)				Inception date
				3 years	5 years	10 years	Since inception	
Vanguard Target Retirement 2055 Vintage								
Fund	0.08	−0.56	6.67	6.23	13.84	8.38	9.88	8/18/2010
Trust II	0.075	−0.55	6.68	6.25	13.89	8.45	10.22	8/31/2010
Target Retirement 2055 Composite Index ¹	—	−0.88	6.55	6.30	14.09	8.70	—	—
Vanguard Target Retirement 2060 Vintage								
Fund	0.08	−0.57	6.65	6.23	13.83	8.38	9.66	1/19/2012
Trust II	0.075	−0.51	6.72	6.27	13.91	8.47	9.40	3/1/2012
Target Retirement 2060 Composite Index ¹	—	−0.88	6.55	6.30	14.09	8.70	—	—
Vanguard Target Retirement 2065 Vintage								
Fund	0.08	−0.54	6.67	6.24	13.84	—	8.86	7/12/2017
Trust II	0.075	−0.52	6.69	6.27	13.90	—	9.38	7/17/2017
Target Retirement 2065 Composite Index ¹	—	−0.88	6.55	6.30	14.09	8.71	—	—
Vanguard Target Retirement 2070 Vintage								
Fund	0.08	−0.56	6.61	—	—	—	12.52	6/8/2022
Trust II	0.075	−0.49	6.71	—	—	—	6.81	4/7/2022
Target Retirement 2070 Composite Index ¹	—	−0.88	6.55	6.30	14.09	8.71	—	—

Past performance is not a guarantee of future results.

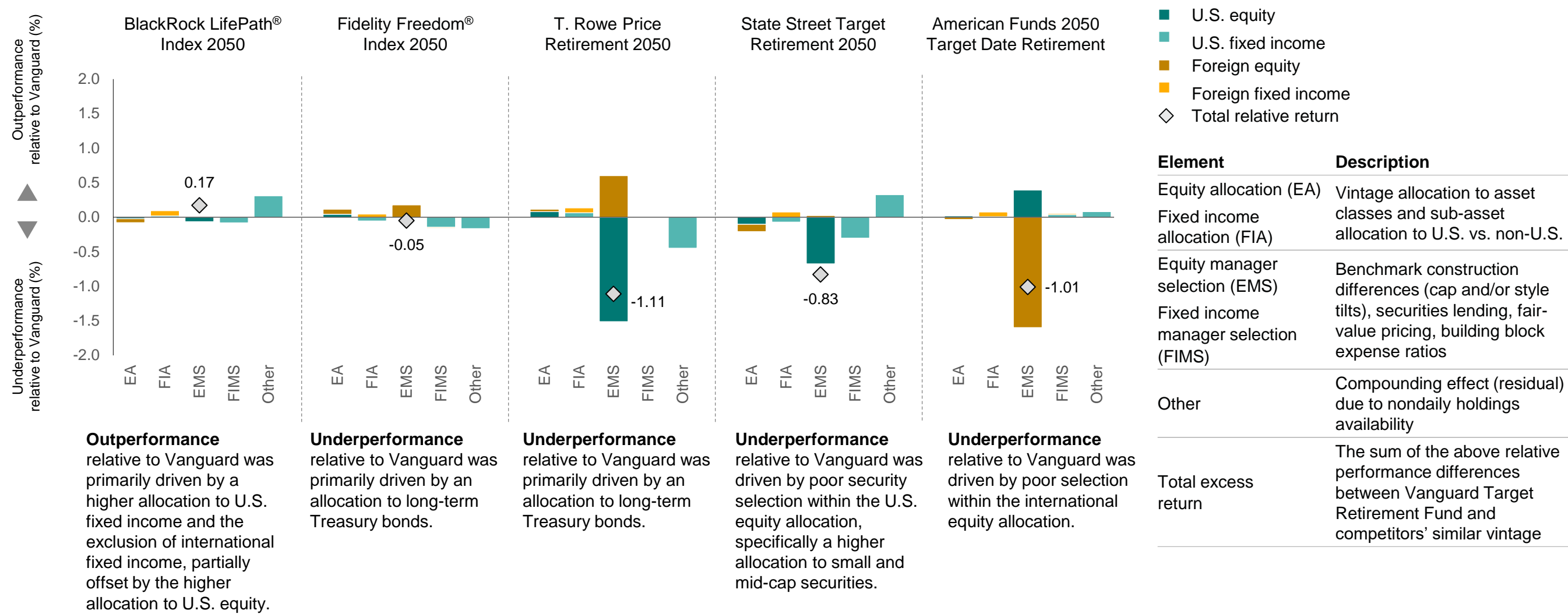
Source: Data derived from Morningstar, Inc.

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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

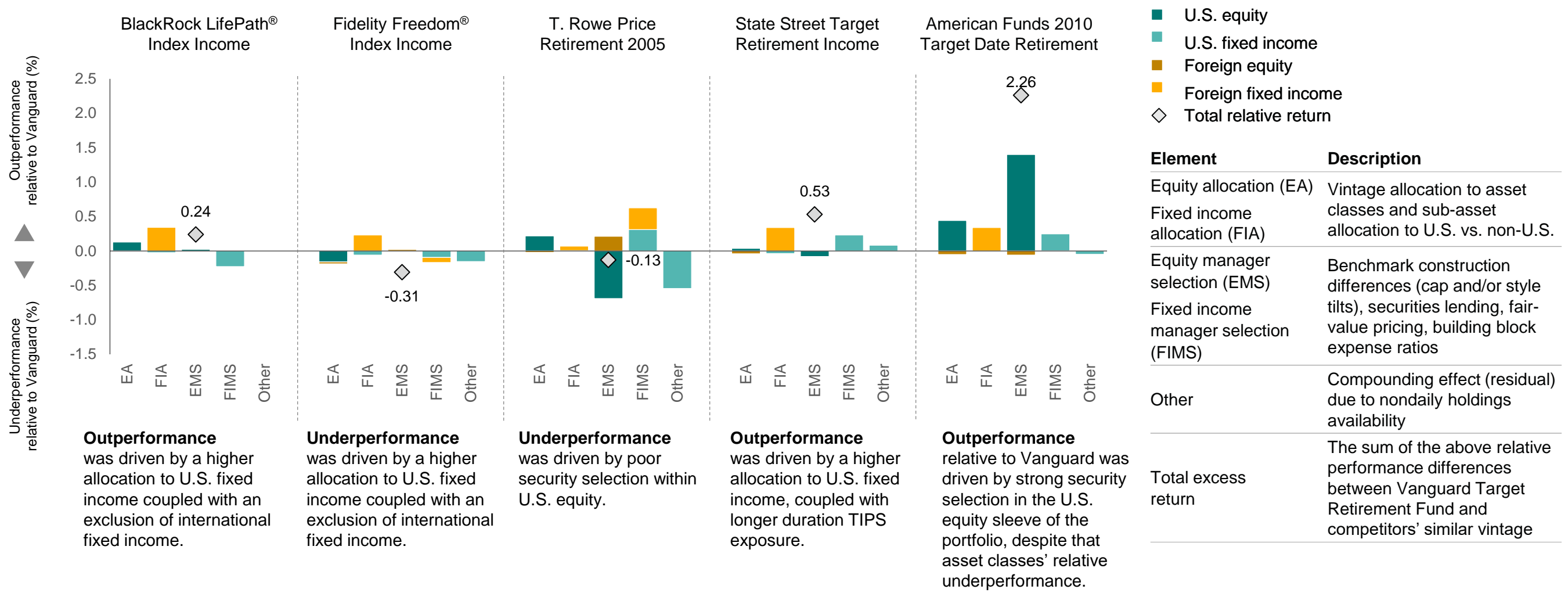
Top five industry 2050 funds relative to Vanguard (PERCENTAGE)



Past performance is not a guarantee of future results.
Sources: Morningstar and Vanguard calculations; data as of March 31, 2025.

12-month return attribution

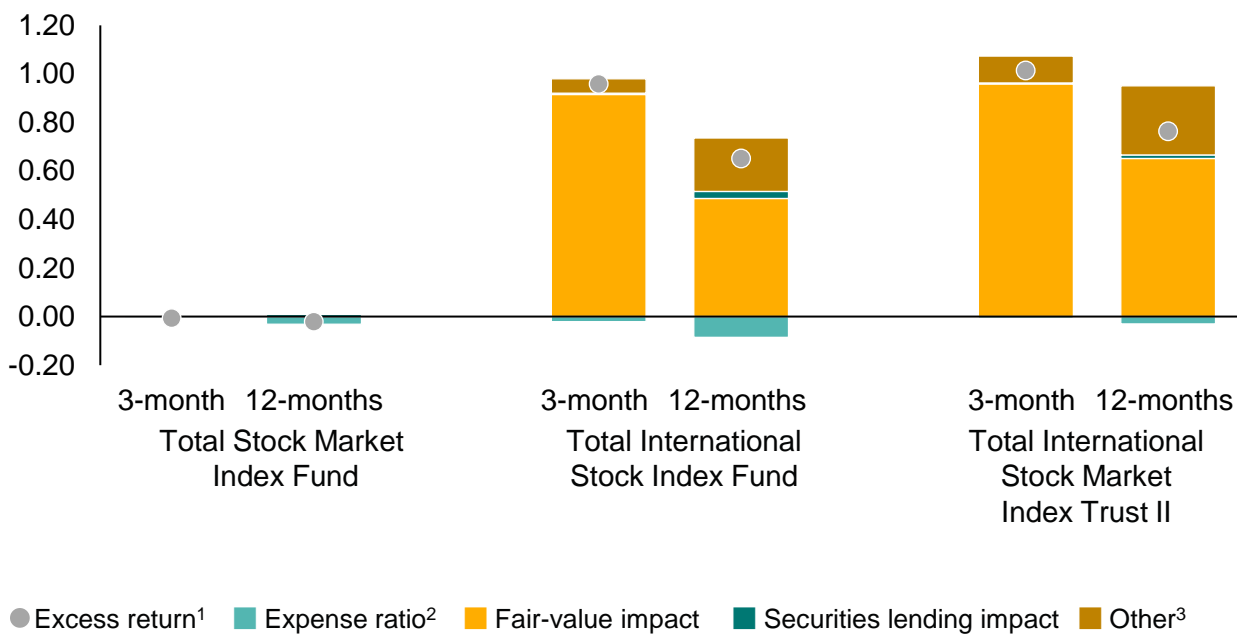
Top five industry income (or equivalent) funds* relative to Vanguard (PERCENTAGE)



Past performance is not a guarantee of future results.
Sources: Morningstar and Vanguard calculations; data as of March 31, 2025.
* 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 March 31, 2025. 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.

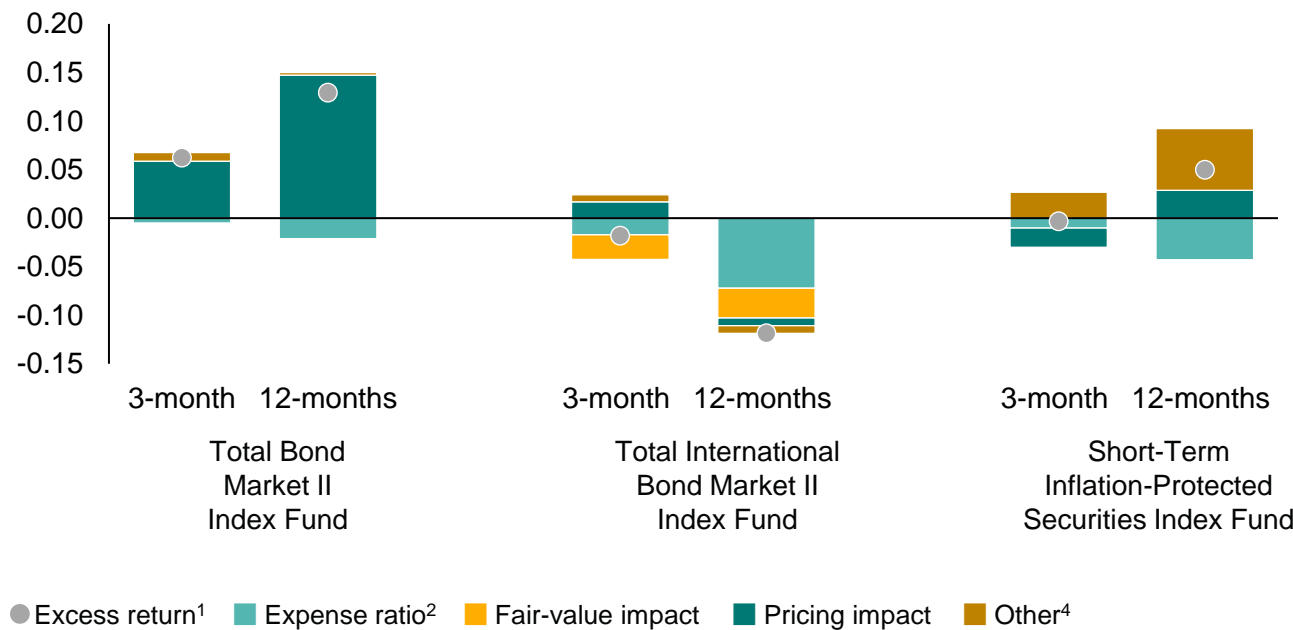
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Fund name	Attribution	Fund return	Benchmark return	Expense ratio impact ²	Fair-value impact	Securities lending impact	Other ³	Excess return ¹
Vanguard Total Stock Market Index Fund	3-month	-4.826	-4.820	-0.007	0.000	0.002	-0.001	-0.006
	12-month	7.067	7.088	-0.032	0.000	0.010	0.002	-0.021
Vanguard Total International Stock Index Fund	3-month	5.507	4.548	-0.021	0.915	0.006	0.059	0.959
	12-month	6.384	5.733	-0.085	0.486	0.029	0.221	0.651
Vanguard Total International Stock Market Index Trust II*	3-month	5.562	4.548	-0.008	0.908	0.004	0.110	1.014
	12-month	6.496	5.733	-0.030	0.494	0.015	0.284	0.763

* 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 March 31, 2025. 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	2.814	2.751	-0.005	0.000	0.059	0.009	0.062
	12-month	4.998	4.868	-0.021	0.000	0.147	0.003	0.129
Vanguard Total International Bond Market II Index Fund	3-month	-0.138	-0.120	-0.017	-0.025	0.017	0.007	-0.018
	12-month	3.461	3.579	-0.072	-0.030	-0.008	-0.008	-0.119
Vanguard Short-Term Inflation-Protected Securities Index Fund	3-month	3.041	3.044	-0.010	0.000	-0.020	0.027	-0.003
	12-month	7.025	6.975	-0.043	0.000	0.029	0.064	0.050

Absolute performance returns

	Expense ratio	3 months	Year-to-date	1 year	Annualized (as of March 31, 2025)				Inception date
					3 year	5 year	10 year	Since inception	
Vanguard Target Retirement Income Fund	0.08	1.37	1.37	5.82	3.11	5.14	4.15	4.96	10/27/2003
Target Retirement Income Composite Index	—	1.21	1.21	5.73	3.18	5.31	4.36	—	—
Lipper Target Target Consvr Funds Average	—	1.35	1.35	5.23	2.82	5.32	3.77	—	—
Fidelity Freedom Income	0.47	2.24	2.24	5.21	2.19	3.82	3.37	4.44	10/17/1996
Fidelity Freedom Index Income Investor	0.12	1.91	1.91	5.51	2.42	3.24	3.22	3.60	10/2/2009
T. Rowe Price Retirement 2005	0.49	1.42	1.42	5.70	3.54	7.26	5.04	5.57	2/27/2004
American Funds 2010 Trgt Date Retire R5	0.34	2.65	2.65	8.08	4.24	7.21	5.35	5.14	2/1/2007
BlackRock LifePath Index Retire K	0.13	1.53	1.53	6.06	2.85	5.95	4.68	5.11	5/31/2011
State Street Target Retirement K	0.26	1.49	1.49	6.35	3.43	6.47	4.62	4.64	9/30/2014
JPMorgan SmartRetirement® Income R5	0.48	1.11	1.11	5.62	3.70	6.26	4.25	4.92	5/15/2006
JPMorgan SmartRetirement® Blend IncomeR5	0.50	1.27	1.27	6.29	3.71	6.27	4.39	4.85	7/2/2012
TIAA-CREF Lifecycle Retire Income Instl	0.56	0.86	0.86	5.05	3.47	6.75	4.91	4.98	11/30/2007

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 Vanguard fund 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.

Data from Vanguard and Factset.

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Absolute performance returns

	Expense ratio	3 months	Year-to-date	1 year	Annualized (as of March 31, 2025)			Since inception	Inception date
					3 year	5 year	10 year		
Vanguard Target Retirement 2050 Fund	0.08	−0.56	−0.56	6.65	6.22	13.84	8.40	7.75	6/7/2006
Target Retirement 2050 Composite Index	—	−0.88	−0.88	6.55	6.30	14.09	8.70	--	—
Lipper Target 2050 Funds Average	—	−0.92	−0.92	5.08	5.65	13.28	7.76	--	—
Fidelity Freedom 2050	0.75	—	—	5.33	6.25	14.30	8.54	6.95	6/1/2006
Fidelity Freedom Index 2050 Investor	0.12	−0.19	−0.19	6.60	5.86	13.28	8.40	9.32	10/2/2009
T. Rowe Price Retirement 2050	0.63	0.16	0.16	5.54	6.21	14.29	8.68	7.62	12/29/2006
American Funds 2050 Trgt Date Retire R5	0.42	−1.38	−1.38	5.64	6.38	13.58	9.14	7.91	2/1/2007
JPMorgan SmartRetirement 2050 R5	0.53	−0.53	−0.53	5.55	6.14	14.09	7.85	7.35	7/31/2007
JPMorgan SmartRetirement® Blend 2050 R5	0.45	−0.51	−0.51	6.47	6.11	13.68	7.98	9.17	7/2/2012
TIAA-CREF Lifecycle 2050 Institutional	0.66	−1.72	−1.72	3.82	5.93	13.94	8.41	6.83	11/30/2007
BlackRock Lifepath Index 2050 K	0.14	−0.95	−0.95	6.82	6.29	14.74	8.70	8.84	5/31/2011
State Street Target Retirement 2050 K	0.18	−0.20	−0.20	5.82	4.99	12.76	8.05	8.11	9/30/2014

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 Vanguard fund 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.

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Standardized performance returns

	Expense ratio	3 months	Year-to-date	1 year	Annualized (as of March 31, 2025)			Since inception	Inception date
					3 year	5 year	10 year		
Vanguard Total Stock Market Index Fund Institutional Shares	0.03	-4.83	-4.83	7.07	8.11	18.09	11.75	8.84	7/7/1997
Vanguard Total International Stock Index Fund Institutional Shares	0.06	5.51	5.51	6.38	4.67	11.47	5.24	5.22	11/29/2010
Vanguard Total Bond Market Index Fund Institutional Shares	0.025	2.77	2.77	4.88	0.54	-0.40	1.45	4.23	9/18/1995
Vanguard Total International Bond Index Fund Institutional Shares	0.06	-0.16	-0.16	3.44	1.10	0.06	1.71	2.36	5/31/2013
Vanguard Short-Term Inflation-Protected Securities Index Fund Institutional Shares	0.03	3.04	3.04	7.02	3.25	4.09	2.81	2.10	10/17/2012

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 Vanguard fund performance data cited. For performance data current to the most recent month-end, visit our website at [vanguard.com/performance](https://www.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.

Data from Vanguard and Factset.

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Important disclosures

When used as supplemental sales literature, the Investment Profile must be preceded or accompanied by the fund's current prospectus as well as this disclosure statement. The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares when redeemed may be worth more or less than the original investment. Fund portfolio statistics change over time. The fund is not FDIC-insured, may lose value and is not guaranteed by a bank or other financial institution.

Performance

Total return reflects performance without adjusting for sales charges or the effects of taxation, but is adjusted to reflect all actual ongoing fund expenses and assumes reinvestment of dividends and capital gains. If adjusted, sales charges would reduce the performance quoted.

Standardized Total Return is total return adjusted for sales charges. The sales charge adjusted for may not necessarily be consistent with the prospectus.

The fund's performance is compared with that of an index. The index is an unmanaged portfolio of specified securities and the index does not reflect any initial or ongoing expenses. The Best Fit Index is the index that the fund has the highest correlation with. A fund's portfolio may differ significantly from the securities in the index. The index is chosen by Morningstar.

Morningstar Return

This statistic is a measurement of a fund's excess return over a risk-free rate (the return of the 90-day Treasury bill), after adjusting for all applicable loads and sales charges. In each Morningstar Category, the top 10% of funds earn a High Morningstar Return, the next 22.5% Above Average, the middle 35% Average, the next 22.5% Below Average, and the bottom 10% Low. Morningstar Return is measured for up to three time periods (three-, five-, and 10-years). These separate measures are then weighted and averaged to produce an overall measure for the fund. Funds with less than three years of performance history are not rated.

Morningstar Risk

This statistic evaluates the variations in a fund's monthly returns, with an emphasis on downside variations. In each Morningstar Category, the 10% of funds with the lowest measured risk are described as Low Risk, the next 22.5% Below Average, the middle 35% Average, the next 22.5% Above Average, and the top 10% High. Morningstar Risk is measured for up to three time periods (three-, five-, and 10-years). These separate measures are then weighted and averaged to produce an overall measure for the fund. Funds with less than three years of performance history are not rated.

Risk Measures

R-squared reflects the percentage of a fund's movements that are explained by movements in its benchmark index, showing the degree of correlation between the fund and the benchmark.

Beta is a measure of a fund's sensitivity to market movements. A portfolio with a beta greater than 1 is more volatile than the market, and a portfolio with a beta less than 1 is less volatile than the market.

Alpha measures the difference between a fund's actual returns and its expected performance, given its level of risk (as measured by beta).

The Sharpe ratio uses standard deviation and excess return to determine reward per unit of risk.

Standard deviation is a statistical measure of the volatility of the fund's returns.

Mean represents the annualized three-year geometric return.

Morningstar Style Box™

The Morningstar Style Box reveals a fund's investment strategy as of the date noted on this report. For equity funds the vertical axis shows the market capitalization of the long stocks owned and the horizontal axis shows investment style (value, blend, or growth).

For fixed-income funds, the vertical axis shows the credit quality of the long bonds owned and the horizontal axis shows interest rate sensitivity as measured by a bond's effective duration.

Morningstar seeks credit rating information from fund companies on a periodic basis (e.g., quarterly). In compiling credit rating information Morningstar accepts credit ratings reported by fund companies that have been issued by all Nationally Recognized Statistical Rating Organizations (NRSROs). For a list of all NRSROs, please visit <http://www.sec.gov/divisions/marketreg/ratingagency.htm>. Additionally, Morningstar accepts foreign credit ratings from widely recognized or registered rating agencies. If two rating organizations/ agencies have rated a security, fund companies are to report the lower rating; if three or more organizations/agencies have rated a security, fund companies are to report the median rating, and in cases where there are more than two organization/agency ratings and a median rating does not exist, fund companies are to use the lower of the two middle ratings. PLEASE NOTE: Morningstar, Inc. is not itself an NRSRO nor does it issue a credit rating on the fund. An NRSRO or rating agency ratings can change from time-to-time.

Important disclosures

Morningstar Style Box™

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low", "medium", or "high" based on their average credit quality. Funds with a low credit quality are those whose weighted average credit quality is determined to be less than "BBB-"; medium are those less than "AA-", but greater or equal to "BBB-"; and high are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index (MCBI), which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases static breakpoints are utilized. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-US taxable and non-US domiciled fixed income funds static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: greater than 3.5 and less than equal to 6 years; (iii) Extensive: greater than 6 years.

Investment Risk

Foreign Securities Funds/Emerging Market Funds: The investor should note that funds that invest in foreign securities involve special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Specialty/Sector Funds: The investor should note that funds that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor to increased industry-specific risks. **Non-Diversified Funds:** The investor should note that funds that invest more of their assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

Small Cap Funds: The investor should note that funds that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average and may be less liquid than larger companies.

Mid Cap Funds: The investor should note that funds that invest in companies with market capitalizations below \$10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

High-Yield Bond Funds: The investor should note that funds that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

Tax-Free Municipal Bond Funds: The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

Additional Information

For more information on Vanguard or Non-Vanguard funds offered, visit www.vanguard.com or call 800-523-1188 to obtain a prospectus. Investment objectives, risks, charges, expenses, and other important information about a fund are contained in the prospectus; read and consider it carefully before investing.

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Important information

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.

Vanguard Short-Term Inflation-Protected Securities Index Fund invests in bonds that are backed by the full faith and credit of the federal government and whose principal is adjusted periodically based on inflation. The fund is subject to interest rate risk because although inflation-indexed bonds seek to provide inflation protection, their prices may decline when interest rates rise and vice versa. The fund's quarterly income distributions are likely to fluctuate considerably more than the income distributions of a typical bond fund. Income fluctuations associated with changes in interest rates are expected to be low; however, income fluctuations associated with changes in inflation are expected to be high. Overall, investors can expect income fluctuations to be high for the fund.

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.

Vanguard ETF® Shares are not redeemable with the issuing fund other than in very large aggregations worth millions of dollars. Instead, investors must buy or sell Vanguard ETF Shares in the secondary market and hold those shares in a brokerage account. In doing so, the investor may incur brokerage commissions and may pay more than net asset value when buying and receive less than net asset value when selling.

Mutual funds and all investments are subject to risk, including the possible loss of the money you invest. Prices of mid- and small-cap stocks often fluctuate more than those of large-company stocks. Investments in stocks or bonds issued by non-U.S. companies are subject to risks including country/regional risk and currency risk. These risks are especially high in emerging markets. Funds that concentrate on a relatively narrow sector face the risk of higher share-price volatility. It is possible that tax-managed funds will not meet their objective of being tax-efficient. Because company stock funds concentrate on a single stock, they are considered riskier than diversified stock funds.

Investments in bond funds are subject to the risk that an issuer will fail to make payments on time and that bond prices will decline because of rising interest rates or negative perceptions of an issuer's ability to make payments. High-yield bonds generally have medium- and lower-range credit quality ratings and are therefore subject to a higher level of credit risk than bonds with higher credit quality ratings. Although the income from a municipal bond fund is exempt from federal tax, you may owe taxes on any capital gains realized through the fund's trading or through your own redemption of shares. For some investors, a portion of the fund's income may be subject to state and local taxes, as well as to the federal Alternative Minimum Tax. Diversification does not ensure a profit or protect against a loss. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income.

While U.S. Treasury or government agency securities provide substantial protection against credit risk, they do not protect investors against price changes due to changing interest rates. Unlike stocks and bonds, U.S. Treasury bills are guaranteed as to the timely payment of principal and interest.

Investments in Target Retirement Funds and Trusts are subject to the risks of their underlying funds. The year in the fund or trust name refers to the approximate year (the target date) when an investor in the fund or trust would retire and leave the workforce. The fund/trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. The Income Trust/Fund and Income and Growth Trust have fixed investment allocations and are designed for investors who are already retired. An investment in a Target Retirement Fund or Trust is not guaranteed at any time, including on or after the target date.

Vanguard is responsible only for selecting the underlying funds and periodically rebalancing the holdings of target-date investments. The asset allocations Vanguard has selected for the Target Retirement Funds are based on our investment experience and are geared to the average investor. Investors should regularly check the asset mix of the option they choose to ensure it is appropriate for their current situation.

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Important information

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References

- 1** Dow Jones U.S. Completion Total Stk Mkt Idx (Full Cap) through June 17, 2005; S&P Transitional Completion Idx through Sep 16, 2005; S&P Completion Index thereafter.
- 2** Total International Composite Index through August 31, 2006; MSCI EAFE + Emerging Markets Index through December 15, 2010; MSCI ACWI ex USA IMI Index through June 2, 2013; and FTSE Global All Cap ex US Index thereafter. Benchmark returns are adjusted for withholding taxes.
- 3** 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.
- 4** Mixed-Asset Target Consvr Funds Avg through 6/30/2012; Mixed-Asset Target Today Funds Avg thereafter.
- 5** Bloomberg U.S. Aggregate Bond Index through December 31, 2009; Bloomberg U.S. Aggregate Float Adjusted Index thereafter.
- 6** Intermediate US Gov't Funds Average through December 31, 2001; Interm Inv-Grade Debt Funds Avg through August 31, 2013; Core Bond Funds Average thereafter.