Wisconsin Deferred Compensation Program

June 9, 2022

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Vanguard

Agenda

- Relationship Team
- Vanguard overview
- III. Asset summary
- IV. Economic and market outlook
- Investment performance summary V.
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- **Fund Review Pages** VII.

Presented by:

Michael Manfre Relationship Executive Institutional Investor Group

Michael Palazzi, CFA. CFP® Senior Investment Strategist Institutional Investor Group

Relationship Team

Vanguard team



Michael Manfre is a relationship executive in the Vanguard Institutional Investor Group (IIG), where he is responsible for supporting the most complex and largest investment-only client relationships through consultative guidance, strategic relationship management, and the highest level of client service. Mr. Manfre has been a senior leader in IIG for 10 years, where he led all aspects of relationship management for both the institutional investment-only business, as well as the full-service defined contribution and defined benefit recordkeeping business.

Before joining Vanguard, Mr. Manfre spent more than 20 years in the banking industry at U.S. Bank and Bank of America. Mr. Manfre earned a B.A. in finance from Washington State University and an M.B.A. in finance from Saint Joseph's University. Additionally, he holds FINRA Series 6, 26 and 63 licenses and the Certified Employee Benefits Specialist (CEBS) designation.

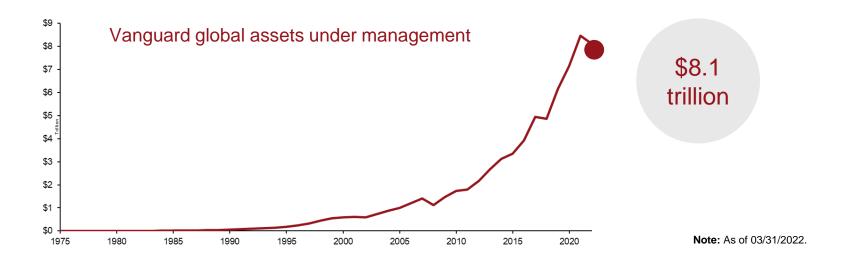


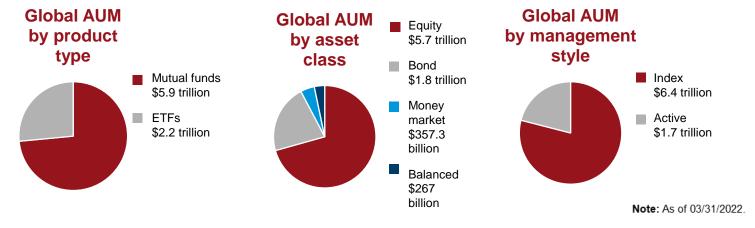
Michael Palazzi, CFA, CFP®, is a senior DC investment strategist in Vanguard Defined Contribution Advisory Services. Michael is responsible for assisting plan sponsors with analysis around plan lineup construction best practices and custom portfolio construction. Before this, he served as a product specialist across Vanguard's suite of multiasset and taxable fixed income portfolios, where he also supported the oversight and product management activities related to these funds.

Michael earned a bachelor's degree in finance and global business from Rider University. He is a member of the CFA Institute and CFA Society of Philadelphia.

Vanguard overview

Assets and cash flow





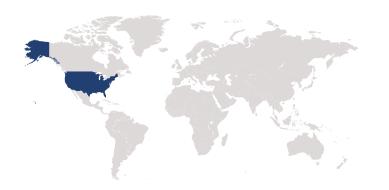


\$299.4 billion global net cash flow in 2021

Note: As of 03/31/2022.

Funds and expenses

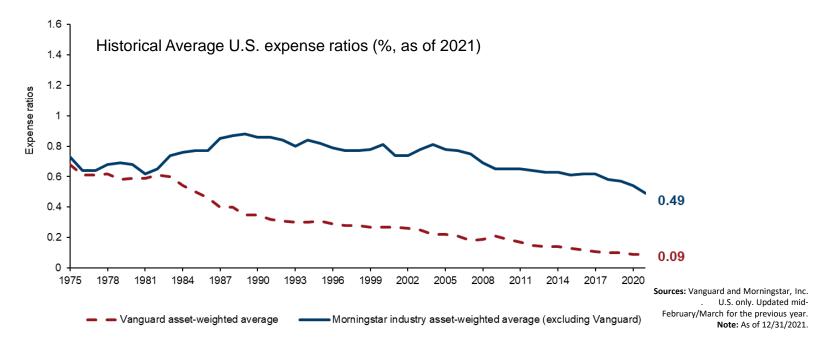
410 funds worldwide





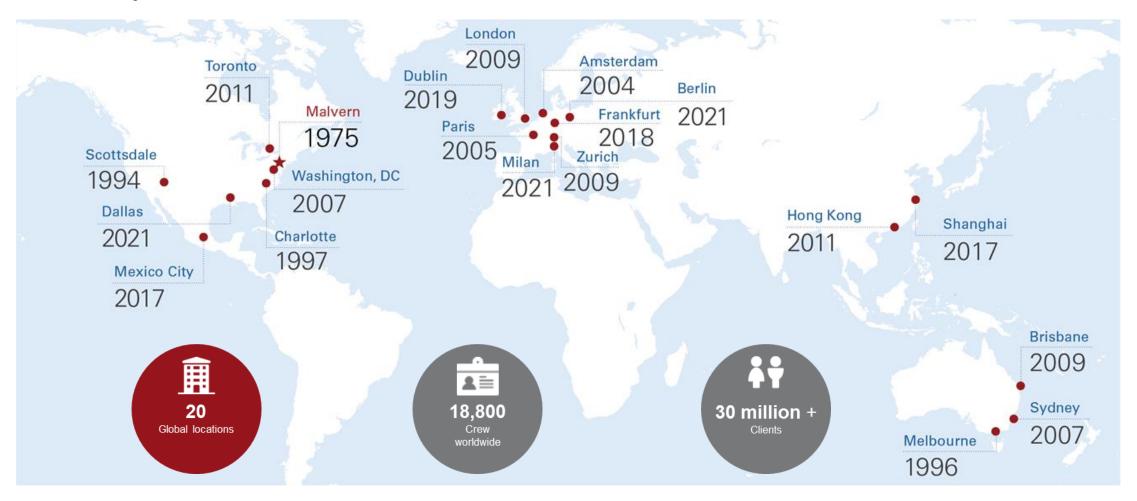
203 funds in the United States

207 funds in global markets Note: As of 03/31/2022.



Crew, clients, and locations

Current Vanguard locations



Source: Vanguard. **Note:** Data as of 03/31/2022. Crew headcount updated annually.

Asset summary

Asset summary

Wisconsin Deferred Compensation Program

Vanguard funds	 rket value as of il 30, 2022
Vanguard Treasury Money Market Fund	\$ 45,651,574.14
Vanguard Wellington Fund Admiral Shares	\$ 619,409,024.88
Vanguard Long-Term Investment-Grade Fund Admiral Shares	\$ 135,985,557.59
Vanguard Institutional 500 Index Trust	\$ 714,894,551.53
Target Retirement Income Trust Plus	\$ 67,033,641.46
Target Retirement 2015 Trust Plus	\$ 116,555,526.16
Target Retirement 2025 Trust Plus	\$ 326,315,532.26
Target Retirement 2035 Trust Plus	\$ 261,321,168.91
Target Retirement 2045 Trust Plus	\$ 169,348,610.60
Target Retirement 2055 Trust Plus	\$ 66,474,086.78
Total	\$ 2,522,989,274.31

Economic and market outlook

Key Highlights:

• We expect the Federal Reserve to raise rates sooner, with the equivalent of six-to- eight 25-basis-point hikes to the federal funds rate target in 2022.

Data as of December 31, 2021

- Risks to U.S. growth specifically from oil prices have moderated in recent weeks, and we still expect full-year GDP growth of around 3.5%.
- Vanguard expects the U.S. unemployment rate to fall to its 3.5% pre-pandemic level in the second quarter and even further by year-end.

Asset-class return outlooks

Our 10-year, annualized, nominal return projections are shown below. The shaded figures marked with an asterisk (*) reflect a February 28, 2022, running of the Vanguard Capital Markets Model® (VCMM) for broad equity and fixed income asset classes only. Outlooks for the remaining sub-asset classes reflect a December 31, 2021, running of the VCMM. Please note that the figures are based on a 1.0-point range around the rounded 50th percentile of the distribution of return outcomes for equities and a 0.5-point range around the rounded 50th

Equities	Return projection	Median volatility
U.S. equities*	2.8%-4.8%	16.80%
Global equities ex-U.S. (unhedged)*	5.7%-7.7%	18.40%
U.S. value	2.8%-4.8%	19.00%
U.S. growth	-1.2%- 0.8%	17.50%
U.S. large-cap	1.9%-3.9%	16.30%
U.S. small-cap	2.3%-4.3%	22.20%
U.S. real estate investment trusts	1.8%-3.8%	19.20%
Global ex-U.S. developed markets equities (unhedged)	5.1%-7.1%	16.30%
Emerging markets equities (unhedged)	4.3%-6.3%	26.80%

Fixed income	Return projection	Median
U.S. aggregate bonds*	1.9%-2.9%	4.60%
U.S. Treasury bonds*	1.6%-2.6%	4.80%
U.S. credit bonds*	2.4%-3.4%	5.80%
U.S. cash*	1.5%-2.5%	1.10%
Global bonds ex-U.S. (hedged)*	1.8%-2.8%	3.90%
U.S. high-yield corporate bonds	2.3%-3.3%	10.30%
U.S. Treasury Inflation-Protected Securities	1.2%-2.2%	4.60%
Emerging markets sovereign bonds	2.5%-3.5%	10.50%
U.S. inflation	1.6%-2.6%	2.30%

These probabilistic return assumptions depend on current market conditions and, as such, may change over time.

IMPORTANT: The projections or 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 the VCMM are derived from 10,000 simulations for each modeled asset class. Simulations are as of February 28, 2022, and December 31, 2021. Results from the model may vary with each use and over time. For more information, see Important information page. Source: Vanguard Investment Strategy Group.

Data as of February 28, 2022

Key Highlights:

- We expect the Federal Reserve to raise rates sooner, with the equivalent of six-to- eight 25-basis-point hikes to the federal funds rate target in 2022.
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Equities	Return projection	Median volatility
U.S. equities*	2.8%-4.8%	16.80%
Global equities ex-U.S. (unhedged)*	5.7%-7.7%	18.40%

Fixed income	Return projection	Median volatility
U.S. aggregate bonds*	1.9%-2.9%	4.60%
U.S. credit bonds*	2.4%-3.4%	5.80%
Global bonds ex-U.S. (hedged)*	1.8%-2.8%	3.90%
U.S. inflation	1.6%-2.6%	2.30%

Data as of February 28, 2022

Data as of December 31, 2021

These probabilistic return assumptions depend on current market conditions and, as such, may change over time.

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Source: Vanguard Investment Strategy Group.

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Region-by-region outlook

Risks to growth include oil prices, the war in Ukraine, and COVID-19

United States

Recent developments have been consistent with Vanguard's view for full-year GDP growth around 3.5% in the United States. We're keeping a close eye, however, on interest rates, monetary policy, and their potential growth effects.

- Risks to growth specifically from oil prices have moderated in recent weeks, with oil trading within the \$95 to \$105 per barrel range that we see as consistent with above-trend 2022 GDP growth.
- GDP grew at an annual rate of 6.9% in the fourth quarter, up from 2.3% third-quarter growth, according to the Bureau of Economic Analysis' final estimate.
- For all of 2021, real GDP grew by 5.7%, compared with a contraction of 3.4% in 2020, when the pandemic set in.

Euro area

The growth environment in the euro area is challenged by the war in Ukraine, the resulting higher energy prices, reduced confidence, and somewhat tighter financial conditions. We continue to foresee full-year growth in a range of 2.5% to 3%, lower than our outlook before the war for growth around 3.5%.

- Consumer confidence at its lowest since the start of the COVID-19 pandemic and diminished business confidence help inform our view, as do the somewhat offsetting effects anticipated from additional fiscal stimulus.
- For the fourth quarter, GDP grew by 0.3% on a seasonally adjusted basis compared with the third quarter.

China

Worsening COVID-19 outbreaks have led to lockdowns affecting more people in China than at any other point since 2020 and purchasing managers' index readings imply that a sharp economic slowdown took hold in March.

- China set an official 2022 growth target "around 5.5%" at the early-March National People's Congress, the lowest growth target it has ever set. Vanguard maintains its forecast for 2022 China growth around 5%.
- Fiscal and monetary stimulus early in the year boosted the economy in January and February, offsetting the March weakness.

Expiration date: 4/25/2025



Region-by-region outlook (continue)

Emerging markets

Vanguard continues to see economic growth around 5.5% in emerging markets broadly in 2022, but high food and energy prices related to the war in Ukraine place risks firmly to the downside.

- Energy prices have risen steadily since the start of the year but have moderated at elevated levels recently. And although higher commodities prices do benefit some emerging economies, they're a negative taken in the aggregate.
- Higher food prices have stoked tensions in some emerging markets.
- Expectations for central bank rate cuts next year in economies that have raised rates this year speak to the slowdown risk.



Energy, food, and housing costs drive inflation higher

Core inflation may be nearing its peak

The Consumer Price Index (CPI) in the United States rose by 8.5% in March compared with a year earlier, higher than a 7.9% year-on-year gain in February. That gain alongside a seasonally adjusted month-on-month gain of 1.2% was largely in line with market expectations.

- Gasoline, food, and shelter contributed the most to the broad increase. Core CPI, which excludes volatile food and energy prices, rose by 6.5% compared with a year earlier.
- Separately, the core Personal Consumption Expenditures Price Index (PCE), the Federal Reserve's preferred inflation indicator in considering monetary policy, rose 0.4% in February, a slower pace of increase than the 0.5% reading in each of the four preceding months.
- Vanguard believes that core inflation may have neared its peak, but that elevated headline inflation, reflecting not just high energy prices but also accelerating food prices, is likely to be an increasingly important factor in the Federal Reserve's policy calculus.

Expiration date: 4/25/2025



We expect the Fed to raise rates sooner

Inflation and wage pressures prompt action

Accelerating inflation and a still-tightening labor market have led us to revise our view on the Federal Reserve. We foresee the equivalent of six to eight 25-basis-point hikes to the federal funds rate target in 2022, with the potential for one or two 50-basis-point hikes in the mix. (Any 50-point hike would count as two of our anticipated 2022 hikes.)

- The change of view is a bringing forward of anticipated rate hikes from 2023 into 2022. We continue to foresee a terminal rate around 3%, though we're evaluating inflation, wage, and labor-market conditions for evidence that an even higher terminal rate may be in order.
- As early as its May 4 meeting, the Fed could announce that it will start to reduce its balance sheet by a level that would quickly rise to as much as \$95 billion per month.
- Should investors adjust their portfolios in response to the U.S. Federal Reserve enacting the first in what is likely to be a series of interest rate hikes? For most investors, the answer will be no, other than regular rebalancing. But history shows that certain sub-asset classes have consistently outperformed during rising real rate environments.
- The current environment may present opportunities for those investors who have the ability and willingness to take some active risk and be a little more targeted in their approach.

Prolonged and persistent periods of real rate increases favor some sub-asset classes

		Feb. 1, 1975– June 30, 1976	July 1, 1980– Aug. 31, 1981	Jan. 1, 1983– Sept. 30, 1984	Oct. 1, 1992— Dec. 31, 1994	Sept. 1, 2002– July 31, 2007	Aug. 1, 2014– April 30, 2019
	High-quality value	1	1	1	1	1	4
Above-	International equities	_	_	2	1	1	1
median	Emerging markets	_	_	_	4	1	2
relative returns on	Value stocks	1	3	1	2	2	3
average	U.S. equities	2	2	2	2	M	1
	Small-cap stocks	_	1	3	1	2	2
	High-quality growth	2	2	М	4	3	1
	Growth stocks	3	3	3	3	3	4
Below-	High-yield bonds	_	_	4	2	4	М
median	Home prices	4	M	3	3	4	2
relative returns on	Commodities	М	4	4	M	3	3
average	Low-quality growth	3	4	4	4	2	3
	U.S. aggregate bonds	4	4	2	3	4	4
Key:		Top quartile = 1	Second quar	tile = 2 Media	an = M Third	quartile = 3	ourth quartile = 4

Sources: Vanguard calculations, based on data from the U.S. Treasury, the U.S. Bureau of Economic Analysis, Bloomberg; CRSP; Kenneth R. French's website, at mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html; Robert Shiller's website, at aida.wss.yale.edu/~shiller/data.htm; Standard & Poor's; MSCl; Dow Jones; and Russell, as of December 31, 2021.

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.

Expiration date: 4/25/2025



Unemployment should continue falling

We may dip below pre-pandemic levels by the end of 2022

The unemployment rate in the United States fell to 3.6% in March, just a shade above its pre-pandemic low, as job creation remained strong.

- Vanguard expects the unemployment rate to fall to its 3.5% pre-pandemic level in the second quarter and even further by year-end.
- Job resignations—as measured by the "quits" rate—are likely to remain high through 2022, and that wages are likely to follow.

UNEMPLOYMENT RATE

fell to

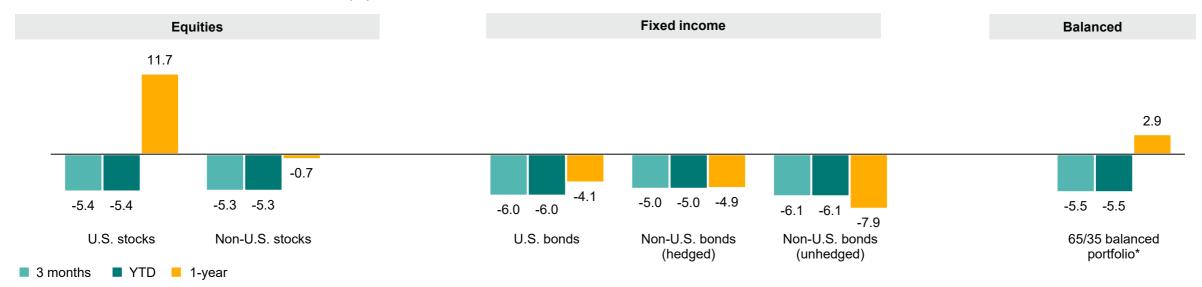
3.6%

just a shade above its pre-pandemic low

Geopolitical risk and its ripples come to the fore

- Weeks after becoming the focus of geopolitical attention, tensions intensified in February as Russian forces invaded Ukraine, with the West responding through a barrage of new sanctions on Russia.
- Across all sectors of the market, the first quarter saw large swings in volatility sparked by interest rate rises and the war in Ukraine.
- The Fed approved the first .25% interest rate rise since 2018, while outlining a path for aggressive rate hikes in the coming year.

Global market returns as of March 31, 2022 (%)



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: Bloomberg, CRSP, and FTSE.

U.S. stocks (CRSP U.S. Total Market Index), non-U.S. stocks (FTSE Global All-Cap ex-U.S. Index), U.S. bonds (Bloomberg U.S. Aggregate Float Adjusted Index), non-U.S. bonds hedged (Bloomberg Global Aggregate ex-U.S.D Float Adjusted RIC Capped Index hedged), non-U.S. bonds unhedged (Bloomberg Global Aggregate Index ex U.S.D).

^{* 65/35} balanced portfolio Static Composite (39% U.S. stocks, 26% international stocks, and 24.5% investment-grade U.S. bonds, 10.5% investment-grade international bonds).

Investment performance summary

Investment performance returns

Annualized (as of 03/31/2022)

Fund/Index/Average	Expense ratio* (%)	Three months (%)	Year- to-date (%)	One year (%)	Three years (%)	Five years (%)	Ten years (%)	Since Inception (%)
Domestic equity funds								
Vanguard Institutional 500 Index Trust (08/17/2018)	0.014	-4.61	-4.61	15.62	18.92	_	_	15.66
S&P 500 Index		-4.60	-4.60	15.65	18.92	15.99	14.64	_
Large-Cap Core Funds Average		-5.64	-5.64	12.02	16.68	14.06	12.77	_
Balanced funds								
Vanguard Target Retirement 2055 Trust Plus (11/30/2011)	0.055	-5.66	-5.66	5.22	12.84	11.06	10.32	11.12
Target Retirement 2055 Composite Ix ¹		-5.25	-5.25	5.78	13.36	11.43	10.60	_
Spl Mixed-Asset Target 2055+Fds Avg ²		-6.30	-6.30	4.48	12.28	10.58	9.62	_
Vanguard Target Retirement 2045 Trust Plus (08/15/2011)	0.055	-5.67	-5.67	5.06	12.70	10.98	10.30	10.86
Target Retirement 2045 Composite Ix ¹		-5.26	-5.26	5.58	13.21	11.34	10.55	_
Mixed-Asset Target 2045 Funds Avg		-6.19	-6.19	4.29	11.93	10.32	9.37	_

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.

^{*} Expense ratio data are as of the fund's most recent prospectus.

^{**} Market price returns are calculated using the midpoint between the bid and offer prices at the time NAV is calculated, typically 4 p.m., Eastern time.

Investment performance returns

Annualized (as of 03/31/2022)

	Expense	Three	Year-	One	Three	Five	Ten	Since
From Allia decol Accessors	ratio*	months	to-date	year	years	years	years	Inception
Fund/Index/Average	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Balanced funds (continued)								
Vanguard Target Retirement 2035 Trust Plus (08/15/2011)	0.055	-5.63	-5.63	3.48	10.89	9.69	9.43	10.01
Target Retirement 2035 Composite Ix ¹		-5.29	-5.29	3.93	11.35	10.01	9.65	_
Mixed-Asset Target 2035 Funds Avg		-5.91	-5.91	3.26	10.45	9.19	8.54	_
Vanguard Target Retirement 2025 Trust Plus (08/15/2011)	0.055	-5.49	-5.49	2.01	9.05	8.25	8.15	8.66
Target Retirement 2025 Composite Ix ¹		-5.21	-5.21	2.41	9.50	8.56	8.37	_
Mixed-Asset Target 2025 Funds Avg		-5.30	-5.30	1.61	7.67	6.97	6.79	_
Vanguard Target Retirement 2015 Trust Plus (08/15/2011)	0.055	-4.77	-4.77	0.45	6.30	6.02	6.30	6.75
Target Retirement 2015 Composite Ix ¹		-4.62	-4.62	0.70	6.61	6.26	6.46	_
Mixed-Asset Target 2015 Funds Avg		-4.70	-4.70	1.54	7.05	6.27	5.66	_
Vanguard Target Retirement Income Trust Plus (08/15/2011)	0.055	-4.74	-4.74	0.21	5.81	5.37	5.04	5.28
Target Retirement Income Compos. Ix ¹		-4.58	-4.58	0.49	6.15	5.61	5.19	_
Spl Mixed-Asset Target Today FdsAvg ³		-4.66	-4.66	0.30	5.33	4.91	4.38	_
Vanguard Wellington™ Fund Admiral™ Shares (05/14/2001)	0.16	-6.37	-6.37	7.70	11.68	10.18	9.92	8.15
Wellington Composite Index ⁴		-5.41	-5.41	8.45	13.20	11.46	10.65	_
Mixed-Asset Target Growth Funds Avg		-5.22	-5.22	4.51	10.49	8.87	8.18	_
Bond funds								
Vanguard Long-Term Investment-Grade Fund Admiral™ Shares (02/12/2001)	0.12	-10.68	-10.68	-3.52	4.29	4.80	5.32	6.61
Bloomberg US LongCredit A/Better Ix		-11.12	-11.12	-4.30	3.88	4.39	4.84	_
Corporate A-Rated Debt Funds Avg		-6.90	-6.90	-3.66	2.68	2.87	3.04	_

Source: Data derived from Morningstar.

• Expense ratio data are as of the fund's most recent prospectus.

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Investment performance returns

Annualized (as of 03/31/2022)

Fund/Index/Average	Expense ratio* (%)	Three months (%)	Year- to-date (%)	One year (%)	Three years (%)	Five years (%)	Ten years (%)	Since Inception (%)
Stable net asset value funds								
Vanguard Treasury Money Market Fund (12/14/1992) ⁵	0.09	0.02	0.02	0.03	0.68	1.02	0.55	2.29
iMoneyNet MFR Treasury Funds Avg		0.00	0.00	0.01	0.48	0.71	0.36	_
FTSE 3-Month US T-Bill Index		0.03	0.03	0.06	0.76	1.09	0.60	_
7-day SEC yield 6 = 0.20%								

Source: Data derived from Morningstar.

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References

- 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.
- 2 Mixed-Asset Target 2050 Funds Avg through August 31, 2013; Mixed-Asset Target 2055+ Funds Avg thereafter.
- 3 Mixed-Asset Target Consrv Funds Avg through 6/30/2012; Mixed-Asset Target Today Funds Avg thereafter.
- 4 65% S&P 500 Index and 35% Lehman Long Credit AA or Better Index through February 29, 2000; 65% S&P 500 Index and 35% Bloomberg Credit A or Better Index thereafter.
- **5** You could lose money by investing in the Fund. Although the Fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. An investment in the Fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Fund's sponsor has no legal obligation to provide financial support to the Fund, and you should not expect that the sponsor will provide financial support to the Fund at any time.
- **6** The yield quotation more closely reflects the current earnings of the fund than the total return quotation.

Target Retirement Trusts



Our key TDF components that power participant success

Aligned interests

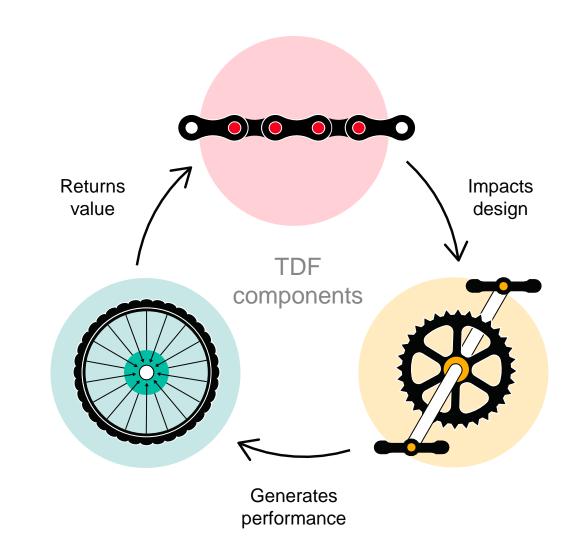
Because Vanguard is the only investor-owned firm in our industry, we're focused on your best interests, seeing your participants' hopes, goals, and dreams as our own.*

Purposeful design and evolution

We design our TDFs to help give participants the best chance for a lasting retirement income, and we constantly evaluate new ideas for improving investor outcomes.

Time-tested performance

Our absolute and risk-adjusted performance has been consistently strong through multiple market cycles and up-and-down markets.



^{*} Fund shareholders own the funds that own Vanguard.

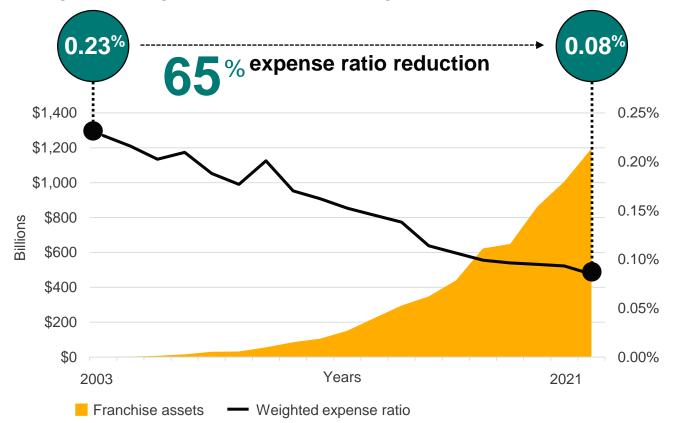
Aligned interests

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

Vanguard Target Retirement strategies



2 We reinvest in:

- Products
- Services
- Processes

... ultimately benefiting participants

Source: Vanguard data from December 31, 2003, to December 31, 2021. Franchise assets include Vanguard Target Retirement Funds and Trusts.

We take our responsibility seriously all the way to the top

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

Oversight and monitoring

- Portfolio Review Department
- Risk Management Group

Management and execution

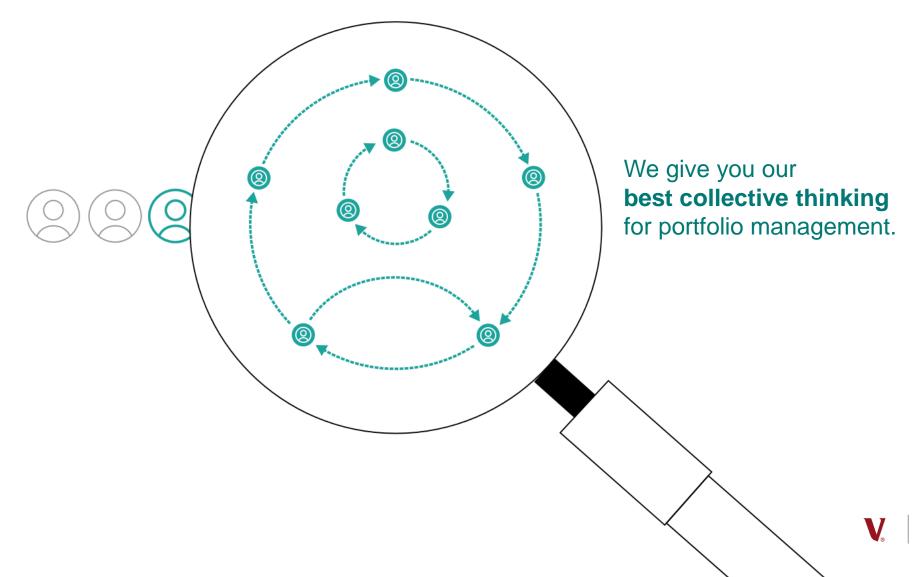
- Equity Index Group
- Fixed Income Group

Research

- Investment Strategy Group
- Strategic Retirement Consulting

Governance

- Board of Directors
- Global Investment Committee
- Strategic Asset Allocation Committee



Key people in TDF portfolio construction and oversight



Board of directors

Global Investment Committee

Tim Buckley, Chairman, CEO

Greg Davis, CFA, Chief Investment Officer

Matt Benchener, Managing Director, Retail Investor Group

John James, Managing Director, Institutional Investor Group

Chris McIsaac, Managing Director, International

Karin Risi, Managing Director, Planning and Development

Tom Rampulla, Managing Director, Financial Advisor Services

Joe Brennan, CFA, Managing Director, Risk Management

Rodney Comegys, Head of Equity Investment Group

Joe Davis, Ph.D., Global Chief Economist and Global Head of Investment Strategy Group

Sara Devereux, Head of Fixed Income

Laura Merianos, Principal, Funds, Finance & Governance

Anne Robinson, Managing Director, Office of the General Counsel

Strategic Asset Allocation Committee

Greg Davis, CFA, Global Chief Investment Officer

Joe Davis, Ph.D., Global Chief Economist and Global Head of Investment Strategy Group (Committee Chair)

Roger Aliaga-Díaz, PhD, Chief Economist, Americas, Head of Portfolio Construction (Committee Vice-chair)

Matthew Brancato, CFA, CPA, Head of Institutional Investor Services

Duncan Burns, CFA, Head of Investments, Asia-Pacific, and of Investment Strategy Group, Asia-Pacific

Kaitlyn Caughlin, CFP®, Global Head of Risk Management, Investment Management Group

Joel Dickson, Ph.D., Head of Enterprise Advice Methodology

Ryan Ludt, European Regional Head of Investment Management Group

Daniel Reyes, CFA, Head of Portfolio Review Department

Qian Wang, Ph.D., Chief Economist, Asia-Pacific, Investment Strategy Group

Ian Kresnak, CFA, Chief of Staff, Investment Strategy Group (nonvoting member)

Brian Wimmer, CFA, Head of Multi-Asset Product Management (nonvoting member)



Research groups and key Target Retirement Funds strategists

Investment Strategy Group

Roger Aliaga-Diaz, Ph.D. Nathan Zahm, CFA Harshdeep Ahluwalia

Portfolio Review Department

Brian Miller, CFA Brian Wimmer, CFA Evan Hammond, CFA Gigi Elashram

Investment Management Group

William Coleman, CFA Walter Nejman Awais Khan, CFA

Investment Solutions

Brian J. Scott, CFA Colleen Jaconetti, CPA, CFP®

Risk Management Group

Venky Venkatesh, CFA Leona Mercer

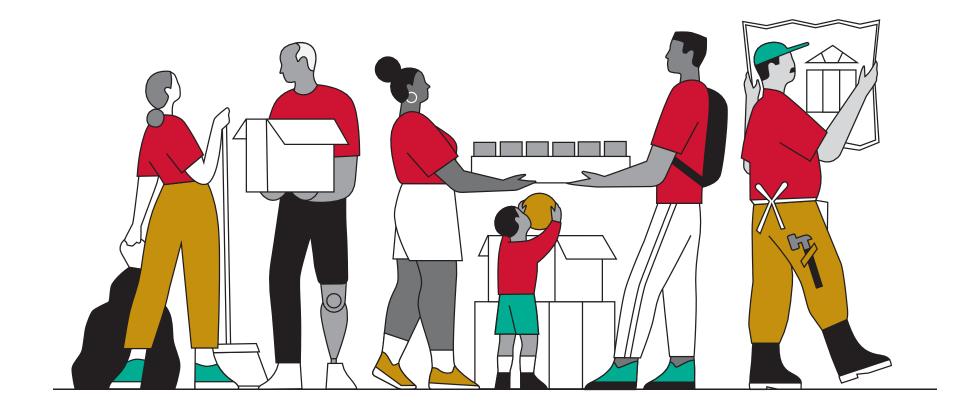
As of January 2022.

Purposeful design and evolution

Who are TDFs designed for?

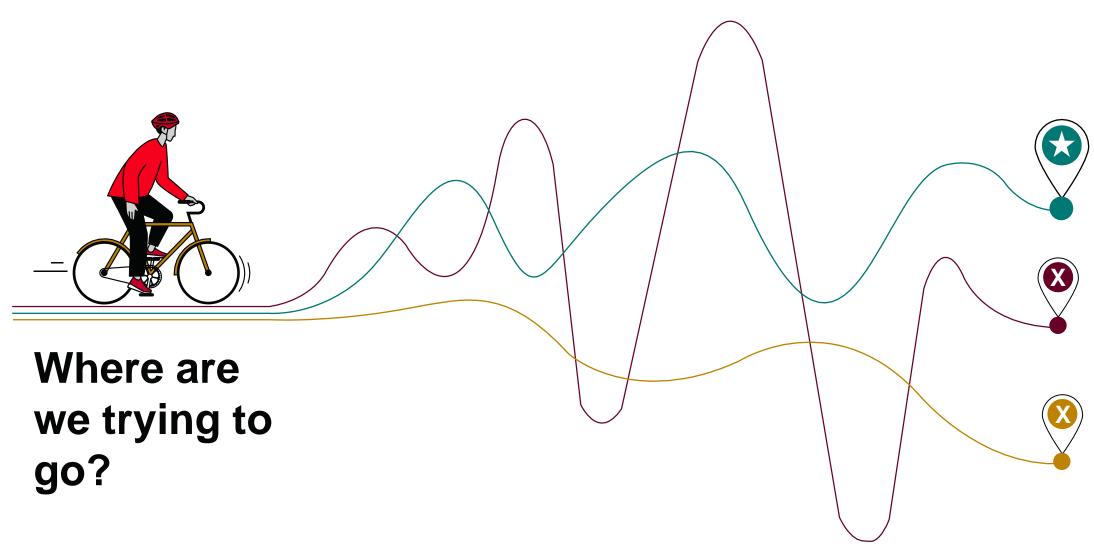
- Broadest swath of participants
- Investors defaulted into TDFs
- One-stop shoppers

Based on national demographic averages with an assumed retirement age



Expiration date: 8/12/2023

What is the purpose of a TDF?

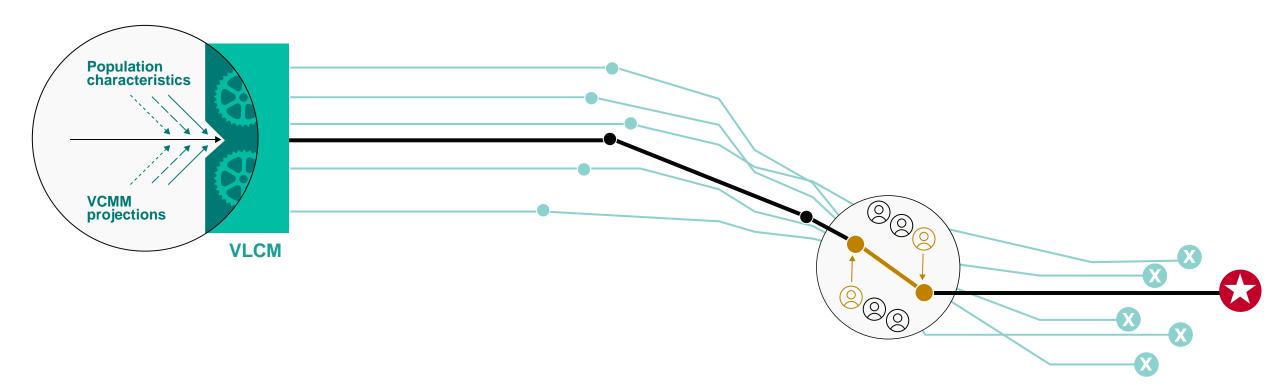


It's about getting participants to and through retirement with enough income.

It's NOT about maximizing expected returns, which risks panic selling and a wild ride into retirement.

It's NOT about minimizing risk, as investors may run out of money in retirement.

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

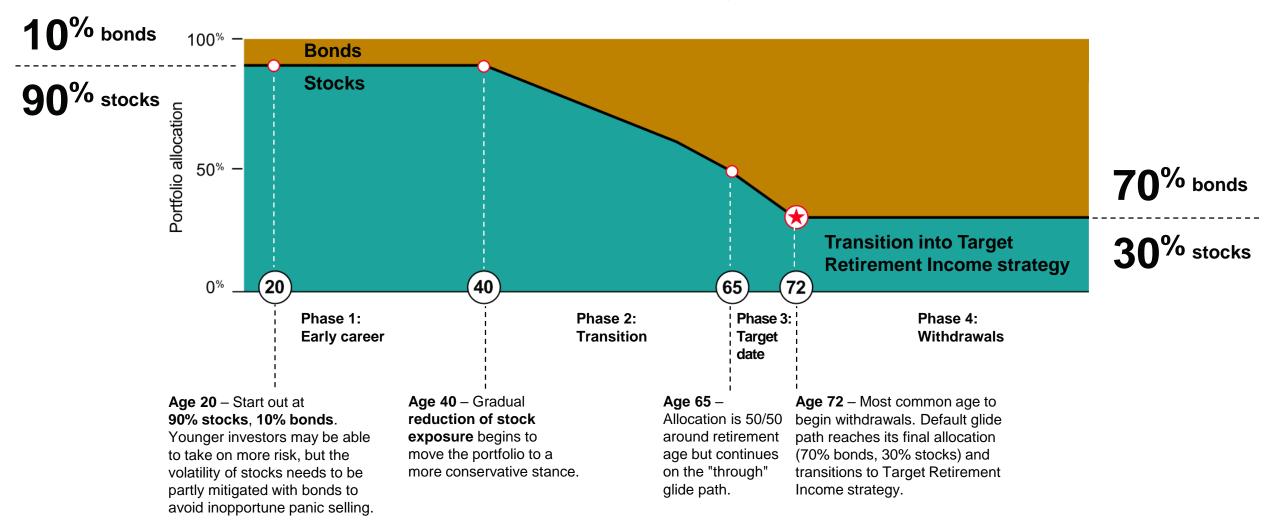
Practical considerations and observed participant behavior taken into account to meet the needs of real-world TDF investors

Outputs

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

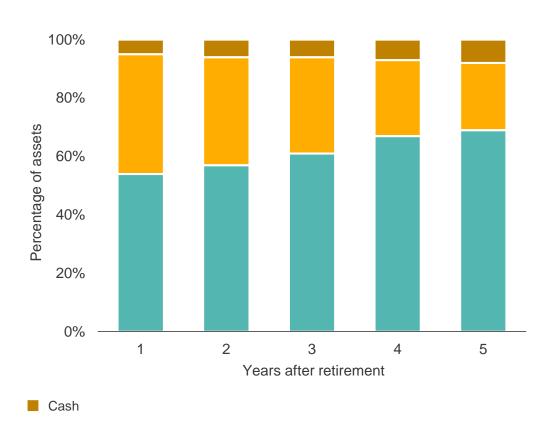
Balancing risk and return at every stage of the investor's life

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



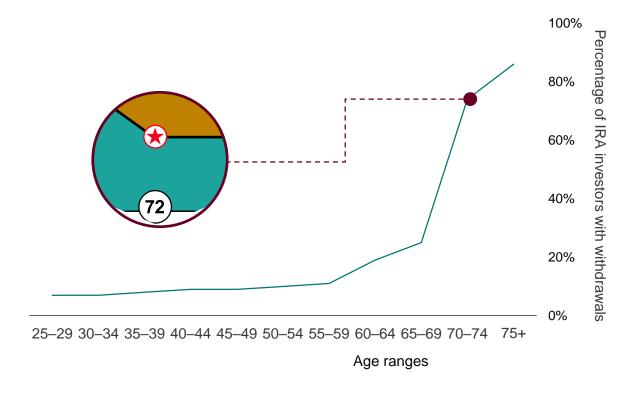
Data on participant behavior supports a 'through' glide-path design

Within five years of retirement, about 70% of assets are rolled over . . .



Source: Retirement distribution decisions among DC participants, Vanguard, September, 2019.

. . . but investors typically don't withdraw money after rolling over until around age 72

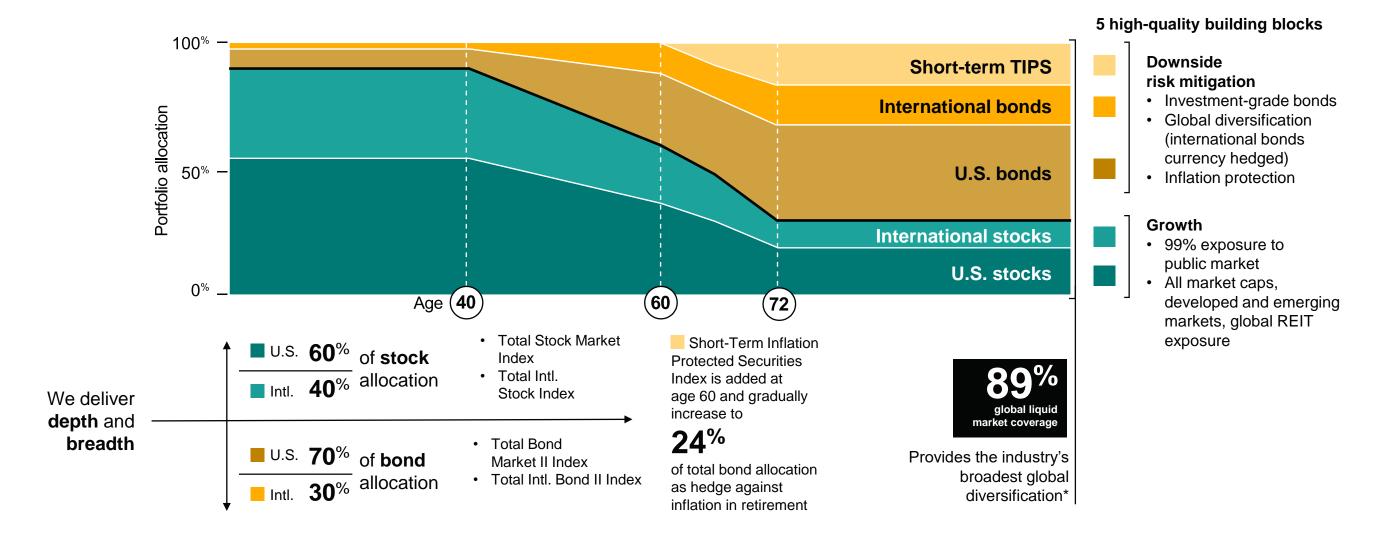


Source: Craig Copeland, "EBRI IRA Database: IRA Balances, Contributions, Rollovers, Withdrawals, and Asset Allocation, 2017 Update," *EBRI Issue Brief*, no. 513 (Employee Benefit Research Institute, September 17, 2020).

Remain in the plan

Rollover

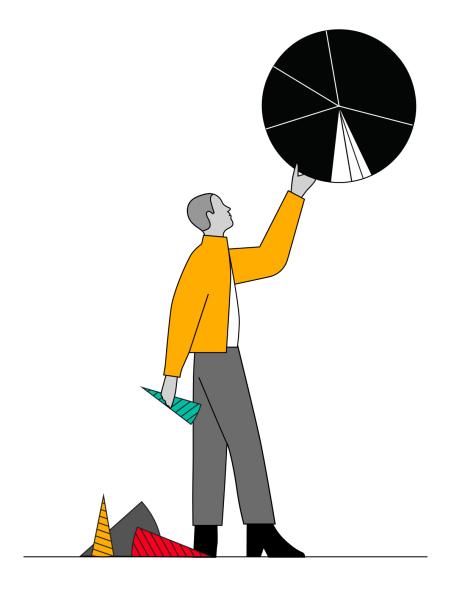
A strategic asset allocation using high-quality building blocks



^{*} Broadest global diversification is determined by comparing the global liquid market coverage across target-date fund providers. 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, 2021.

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

What's NOT in our TDFs, and why



We carefully evaluate strategies on:

- Appropriateness for the broadest swath of participants, including those disengaged and defaulted into TDFs
- Broad investment criteria (cost, simplicity, transparency, liquidity)
- Portfolio construction criteria (improve diversification, enhance return, reduce risk)
- Ability to materially improve long-term probability of retirement success

We exclude strategies that add volatility without adequate compensation in return or that fail to meet the criteria above.

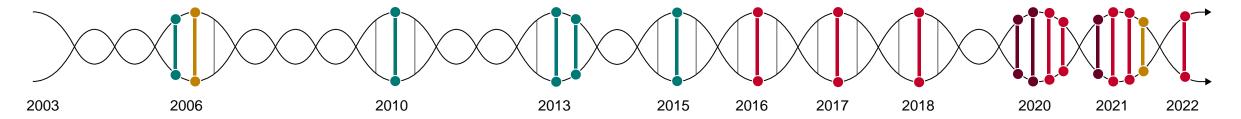
Examples of strategies we do not currently include:

- High-yield bonds
- Commodities
- Overweighting REITs
- Tactical or static tilts based on size, style, sector, duration, etc.

Expiration date: 8/12/2023

Purposeful evolution through constant evaluation

Since our TDFs' 2003 inception, we've made only changes that can meaningfully improve investor outcomes.



Enhanced asset allocation

- Added emerging markets stocks (2006)
- Added Canada and more international equity exposure (including small-caps) through Total International Stock Index replacing three regional funds (2010)
- Added international bonds (2013)
- Replaced broad TIPS fund with short-term TIPS for better responsiveness to inflation and removed money market fund (2013)
- Increased international allocations for both stocks and bonds (2015)

Improved fund/trust lineup

- Launched five-year vintage increments (2006)
- Added optional trust with a 50/50 allocation landing point and added enhanced retirement income services (2021)

Reduced implementation costs and tax drag

- Moved from quarterly to monthly glide-path rolldown (2020)
- Widened rebalancing bands (2020)
- Across trust vintages, replaced underlying international fund with an international trust, minimizing foreign tax withholdings (2021)

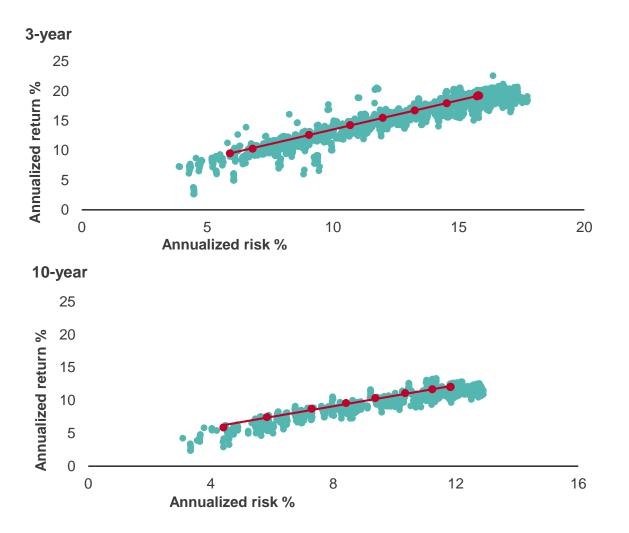
Lowered fees, increased access

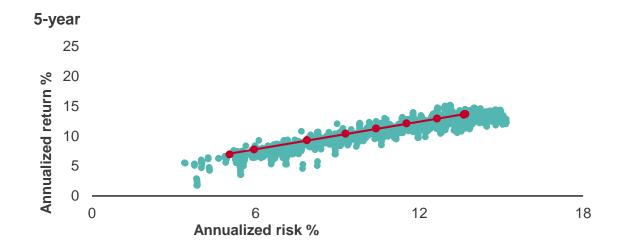
- Lowered expense ratios (2016, 2017, 2018, 2020, and 2021)
- Reduced minimum for Institutional Target Retirement Funds (2020)
- Reduced minimum for Target Retirement Trusts (2021)
- Merging Institutional Target Retirement Funds into Target Retirement Funds (2022)

Expiration date: 8/12/2023

Performance matters. Consistent performance matters even more.

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 12/31/2021. Vanguard Investor Shares highlighted.

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Consistent stellar performance relative to peers

	Income fund	2025 fund	2050 fund
Average quartile ranking in Morningstar peer group for rolling 10-year periods since inception	Top quartile	Top quartile	Top quartile
Percentage of times fund outperformed the peer-group average based on 10-year rolling returns since inception	100% of the time	100% of the time	100% of the time

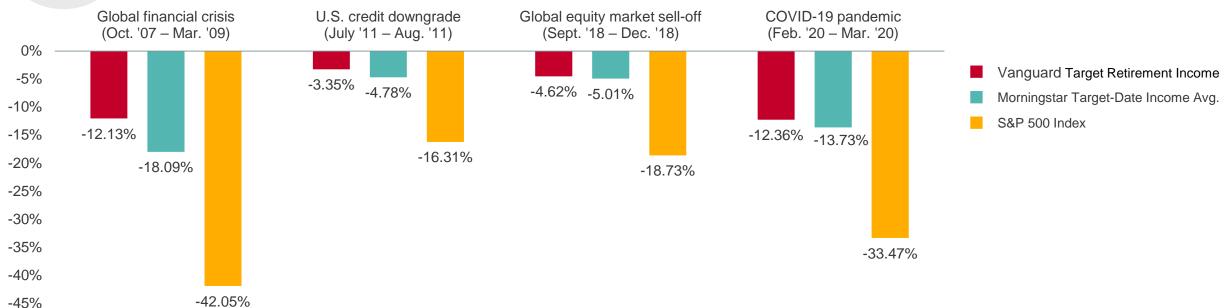
The three vintages were chosen because they represented scenarios for those who are well into retirement, those nearing retirement, and those further from retirement, and because each fund has a track record of at least 15 years. The analysis reviewed 10-year returns on a rolling quarterly basis from June 30, 2006, through December 31, 2021. Only competing funds with a 10-year history for the relevant period were included. For the Income Fund, the number of funds in the peer group ranged from 35 in the earliest periods to 110 in the most recent periods; for the 2025 Fund, from 10 to 130; and for the 2050 fund, from 26 to 131. The top row shows the average quartile ranking for the aggregate rolling periods. The bottom row shows how often our fund outperformed the peer average over those rolling periods. Vanguard Target Retirement Income Fund ranked in the top quartile 74% of the rolling 10-year periods (17 out of 23 periods) and outperformed the peer-group average in all those 10-year periods. Vanguard Target Retirement 2025 Fund ranked in the top quartile 87% of periods (20 out of 23) and outperformed the peer group average in all those periods. Results will vary with different time periods.

Sources: Vanguard and Morningstar, Inc., as of December 31, 2021. **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 www.vanguard.com/performance.

Designed to deliver strong performance while limiting volatility



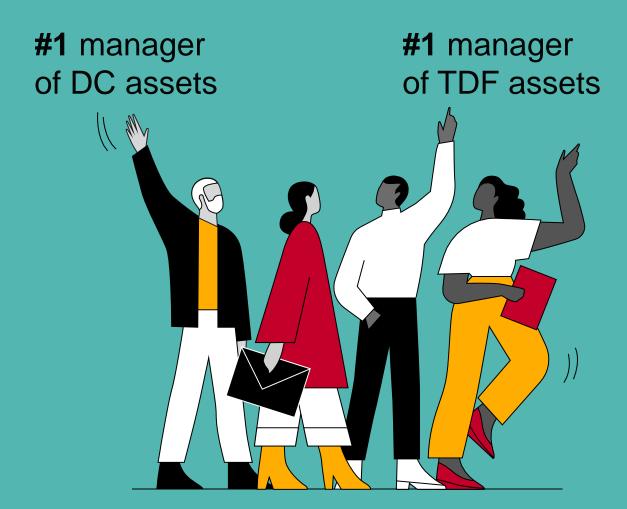
Investors in retirement are the most vulnerable. Vanguard Target Retirement Income Fund has fared better than the peer average during severe market downturns, **providing better risk mitigation when investors need it most.**



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. Visit our website at institutional.vanguard.com/performance for the most recent Vanguard investment performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Sources: Vanguard and Morningstar, Inc. Data are as of month-end through month-end for each relevant period.

Vanguard is the QDIA provider of choice



37% of the industry

have entrusted Vanguard with

more than \$1 trillion

in TDF assets for their

15 million

participants

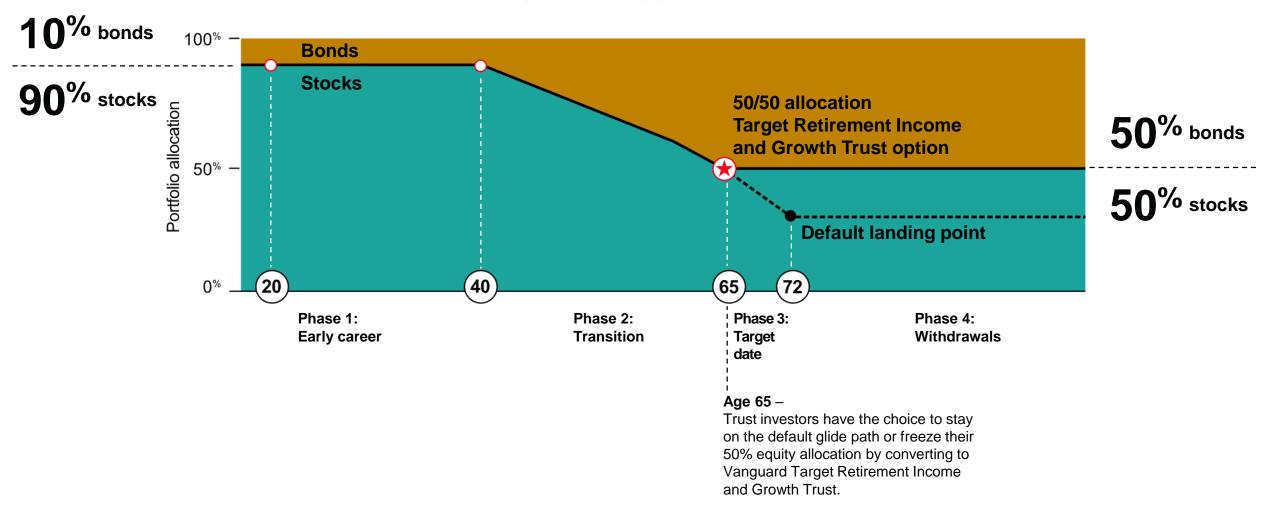
Note: DC assets are based on AUM in both Vanguard-administered plans and those administered by others. Other figures are based on AUM market share of the TDF industry. Sources: Vanguard and Morningstar, Inc., as of December 31, 2021.

Expiration date: 8/12/2023

Appendix

An alternate landing point for some participants

Trust investors with the resources, risk tolerance, and higher spending goals have a choice



Our latest evolutions are helping participants solve the retirement income puzzle



Investments

Vanguard Target Retirement Trusts offer an alternative equity landing point for those participants with more ambitious retirement spending goals.*

Participant guidance

Online questionnaire around age 65 to help participants choose appropriate landing point

Spending service

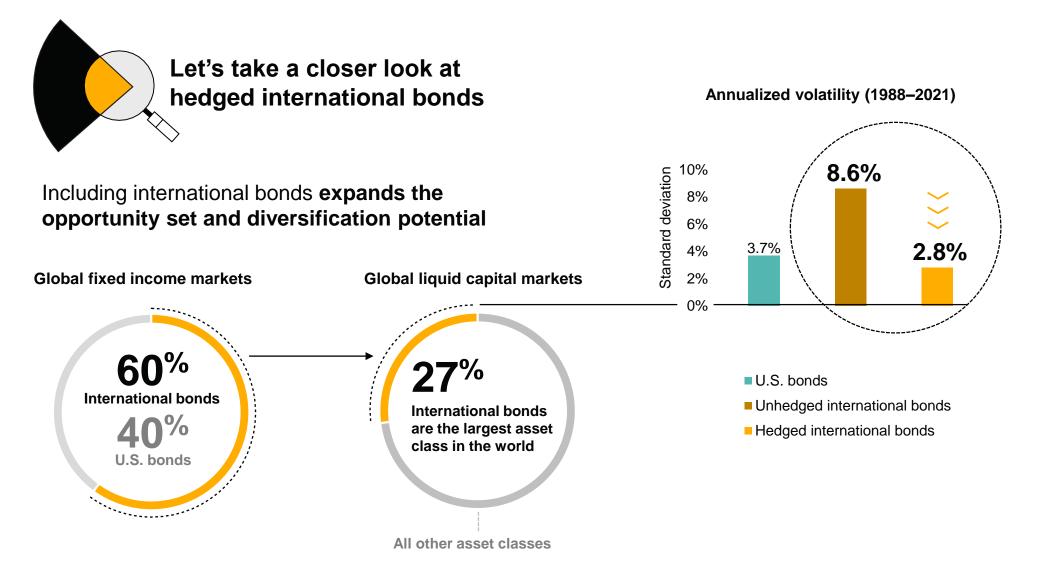
Annual recommendations on spending during retirement

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Online questionnaire We are connecting the dots for **Alternative equity** participants, landing point all at no extra cost. Spending recommendations

^{*} This option is currently only available as a commingled investment trust, not as a 1940 Act mutual fund.

Hedged international bonds can improve portfolio diversification

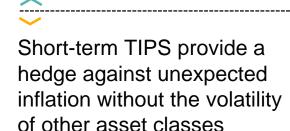


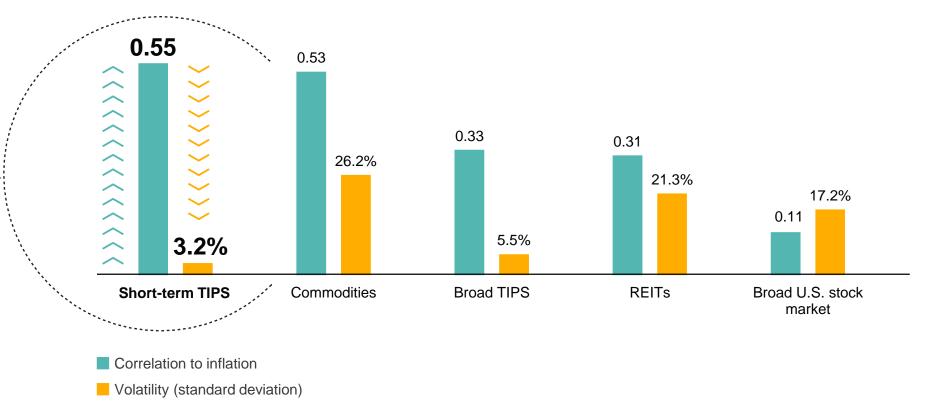
Currency hedging reduces the volatility of international bonds, helping to preserve their diversification benefits

Sources: Vanguard calculations using data from Bloomberg, MSCI, and FactSet, for the period from January 1, 1988, through December 31, 2021. MSCI U.S. Broad Market Index was used for U.S. stocks, MSCI AC World Ex USA IMI Index for international stocks and Bloomberg U.S. Aggregate Bond Index for U.S. bonds. International bonds were represented by Citigroup World Government Bond Index through 1989 and Bloomberg Global Aggregate ex-USD Index thereafter.

Short-term TIPS: Higher correlation to inflation with less volatility







Sources: Vanguard calculations using data from Bloomberg, MSCI, CRSP, and the University of Michigan Surveys of Consumers as of December 31, 2021. Correlation to year-over-inflation and volatility (standard deviation) of 12-month returns were based on CPI and the following indexes: Bloomberg US 0-5 Year TIPS since 8/31/2002, Bloomberg Commodity Index 12/31/1969, Bloomberg US Treasury Inflation-Protected Index since 2/28/1997, MSCI US REIT Index since 12/31/1994, Spliced Total Stock Market Index since 12/31/1970 (Dow Jones Wilshire 5000 Index through 4/22/2005, MSCI US Broad Market Index through 6/2/2013, CRSP US Total Market Index thereafter).

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Why indexing is a logical choice for QDIA

Percentage of equity funds that underperformed relevant index						
Fund category	Comparison index	10-year	20-year*			
All domestic	S&P Composite 1500	86%	88%			
Global	S&P Global 1200	83%	87%			
International	S&P International 700	80%	91%			
Emerging markets	Emerging markets S&P/IFCI Composite					
Percentage of fixed income funds that underperformed relevant index						
Fund category	Comparison index	10-year	15-year*			
Government intermediate	Barclays US Government Intermediate	81%	86%			
Investment-grade intermediate	Barclays US Government/Credit Intermediate	50%	67%			
High yield	Barclays US Corporate High Yield	95%	98%			
Global	Barclays Global Aggregate	59%	64%			

Advantages

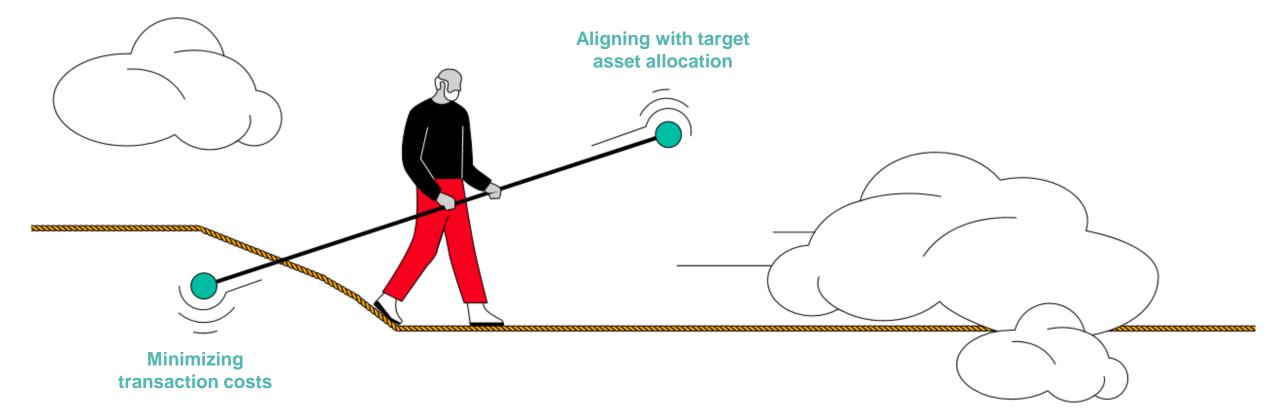
- √ Straightforward
- √ Transparent
- √ Cost-efficient
- √ Low manager risk

History of long-term outperformance relative to active strategies across asset classes

Source: S&P SPIVA Scorecard, data as of June 30, 2021.

^{*} Longest time period measured in SPIVA report was 20 years for equity funds and 15 years for fixed income funds. Past performance is not a guarantee of future returns.

A rebalancing strategy unlike most in the industry

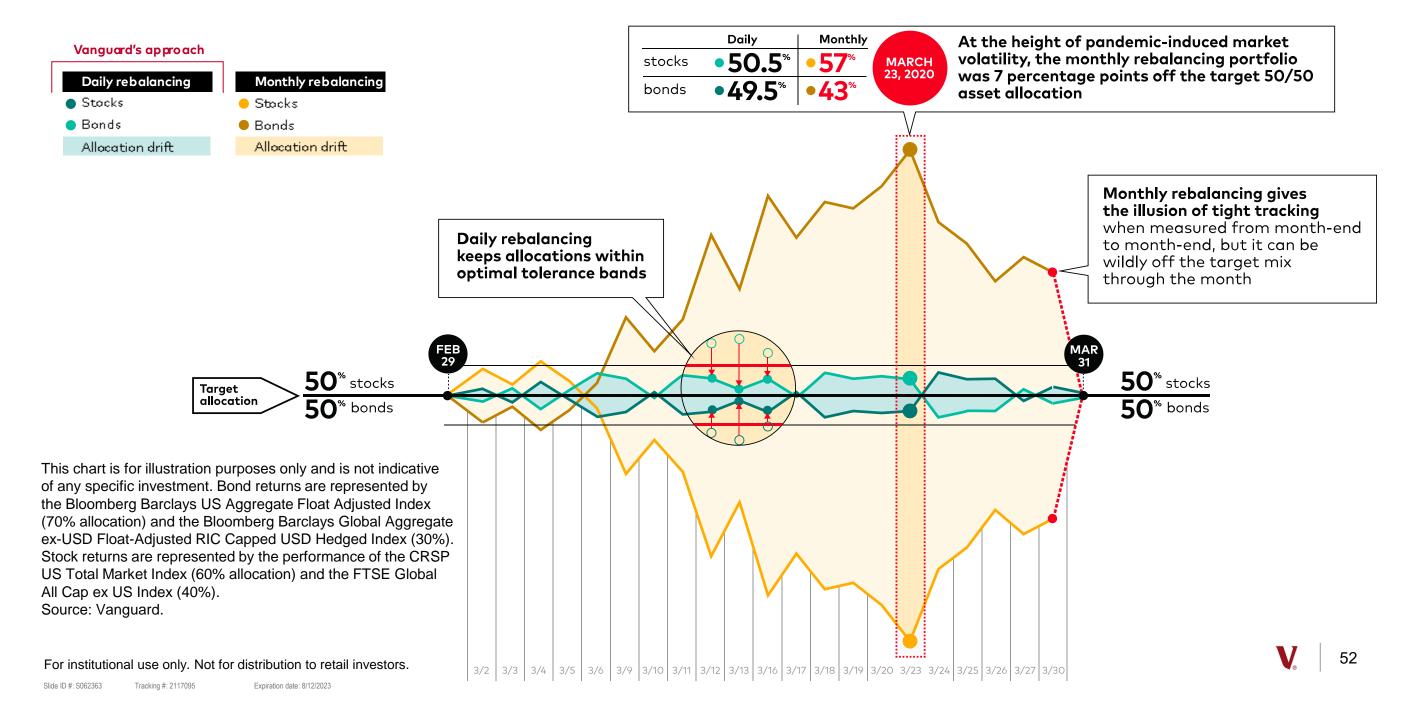


Finding the right balance for TDFs

- Instead of rebalancing monthly or quarterly, we rebalance our TDFs daily, providing the asset allocation experience investors expect each and every day.
- But we rebalance only if the asset mix drifts too far from its target asset allocation, seeking the optimal balance between minimizing transaction costs and maintaining tight alignment to the glide path.
- Daily rebalancing means more effort on our part, but we believe it best serves the interests of our investors.

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Daily rebalancing means closer alignment to target asset mix



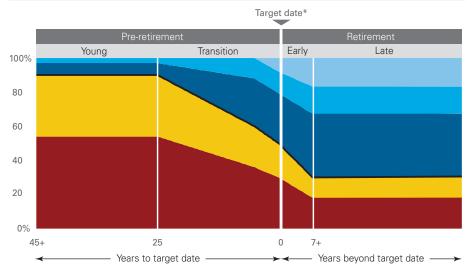
Fund Review Pages



Vanguard Target Retirement Trust Plus Overview

Objective

- Seeks to provide growth of capital and current income consistent with the investor's time horizon.
- Easy to use index-based structure that holds a portfolio of diversified stock, bond (including inflation-protected securities), and short-term reserves funds.
- Automatically carries out investment selection, asset allocation, and rebalancing through retirement.
- Allocation between stock and bond funds automatically becomes more conservative over time.



^{*}Target date is the year stated in the fund name and assumes retirement at age 65. Source: Vanguard.

Stocks	Bonds
● 60% U.S. stocks	● 70% U.S. nominal bonds
40% International stocks	30% International nominal bonds
	0%–24% of total fixed income Short-term TIPS

Investors may choose to invest in any of the Target Retirement Trusts. Each are based on an asset allocation strategy designed for investors planning to retire in or within a few years of the target maturity year.

Fund	Investors who plan to retire between
Vanguard Target Retirement 2065 Trust Plus	2063 and 2067
Vanguard Target Retirement 2060 Trust Plus	2058 and 2062
Vanguard Target Retirement 2055 Trust Plus	2053 and 2057
Vanguard Target Retirement 2050 Trust Plus	2048 and 2052
Vanguard Target Retirement 2045 Trust Plus	2043 and 2047
Vanguard Target Retirement 2040 Trust Plus	2038 and 2042
Vanguard Target Retirement 2035 Trust Plus	2033 and 2037
Vanguard Target Retirement 2030 Trust Plus	2028 and 2032
Vanguard Target Retirement 2025 Trust Plus	2023 and 2027
Vanguard Target Retirement 2020 Trust Plus	2018 and 2022
Vanguard Target Retirement 2015 Trust Plus	2013 and 2017
Vanguard Target Retirement Income Trust Plus	Investors in retirement
Vanguard Target Retirement Income and Growth Trust Plus	Investors in retirement



Vanguard Target Retirement Trusts Overview

Vanguard Target Retirement Trusts deliver important benefits to plan sponsors and participants

Fund characteristics:

- Consists of eleven different trusts based on expected retirement dates and two available retirement income trusts based on retirement spending needs.
- Each trust is composed of a series of index-based building blocks representing global equity and fixed income market exposure.
- Asset allocation changes are kept within narrow ranges around target allocations.
- Each fund is composed of index trusts.
- No additional program fees above those of underlying trusts.

Target audience:

- Investors who prefer a broadly diversified one-fund option that gradually shifts its emphasis to more conservative investments as its target date approaches.
- Investors of any age or time horizon, including:
 - ☐ Investors in the accumulation, transition, or withdrawal phases.
 - Novice to sophisticated investors who lack the time or desire to monitor their investments but who want professional management.

Investment rationale:

- Asset allocation is the key decision in explaining performance variation.
- Tactical asset allocation and security selection, on average, increase risk and reduce return.
- Controlling costs allows investors to keep more of their returns.

Portfolio construction:

- Asset allocations become more conservative closer to retirement using qualitative judgment based on:
 - ☐ Historical return data for stocks, bonds, and cash 1926 to present.
 - ☐ Simulated returns from real time path and Monte Carlo analysis based on historical data 1926 to present.
- Given investors' preferences and risk tolerance:
 - Appropriate asset allocation choices.
 - Broad global diversification across asset classes and market segments.*
 - ☐ Limited manager and active management risk through the predominant use of index trusts.
 - □ No black-box tactical asset allocation moves.
- Monthly incremental change in target allocation to reduce potential impact of market conditions.
- Inflation protection through equities when young and through short-term TIPS close to and after retirement.
- Decumulation options tied to retirement spending goals.

Benefits to investor:

- Sophisticated portfolio in a single trust.
- Transparency of returns, risks, and costs.
- Low cost leaves more of the return for the investor.

^{*} Diversification does not ensure a profit or protect against a loss.

Vanguard Target Retirement 2065 Trust Plus

Investment approach

- Simple fund of funds structure seeks to build appropriate asset allocation from preselected stock and bond portfolios.
- The allocation between funds and asset classes automatically becomes more conservative over time.
- The trust handles investment selection, asset allocation, and rebalancing through retirement.
- 100% of assets invested in index funds.

Risk and volatility

	R ²	Beta
Primary benchmark	1.00	1.00
Broad-based benchmark	0.98	0.85

R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark.

Broad-based benchmark: MSCI US Broad Market Index.

Key facts	
Expense ratio as of 03/31/2021	5.5 bps
Designation	Target-Date 2061-2065
Fund inception date	07/17/2017
Trust inception date	07/24/2017
Total net assets as of 03/31/2022 (\$M)	\$3,713
Net fund assets as of 03/31/2022 (\$M)	\$646
Benchmarked to	Target Retirement 2065 Composite Index
CUSIP	92202V120
Investment manager	Vanguard Equity Index Group



		_	Annualized		
	Quarter-end	Year-to-date	1-year	3-year	*Since inception
Trust	-5.64%	-5.64%	5.19%	12.85%	11.56%
Benchmark	-5.25%	-5.25%	5.78%	13.36%	10.84%
Spl Mixed-Asset Target 2055+Fds Avg	-6.30%	-6.30%	4.48%	12.28%	11.01%

^{*} Since fund's inception, July 24, 2017.

Portfolio allocations to underlying funds (%)



•	53.9%	Total Stock Market Index Fund Institutional Plus
•	36.6	Institutional Total International Stock Market Index Trust II
•	6.7	Total Bond Market II Index Fund Institutional
•	2.8	Total International Bond II Index Fund

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. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

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

Spl Mixed-Asset Target 2055+Fds Avg: Mixed-Asset Target 2050 Funds Average through August 31, 2013; Mixed-Asset Target 2055+ Funds Average thereafter. Derived from data provided by Lipper, a Thomson Reuters Company.

All data as of March 31, 2022, unless otherwise noted.



Vanguard Target Retirement 2065 Trust Plus



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

Spl Mixed-Asset Target 2055+Fds Avg: Mixed-Asset Target 2050 Funds Average through August 31, 2013; Mixed-Asset Target 2055+ Funds Average thereafter. Derived from data provided by Lipper, a Thomson Reuters Company.

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Vanguard Target Retirement 2060 Trust Plus

Investment approach

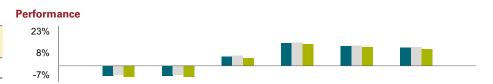
- Simple fund of funds structure seeks to build appropriate asset allocation from preselected stock and bond portfolios.
- The allocation between funds and asset classes automatically becomes more conservative over time.
- The trust handles investment selection, asset allocation, and rebalancing through retirement.
- 100% of assets invested in index funds

Risk and volatility

	R ²	Beta
Primary benchmark	1.00	1.00
Broad-based benchmark	0.98	0.85

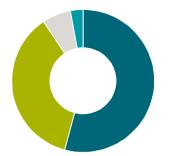
R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: MSCI US Broad Market Index.

Key facts Expense ratio as of 5.5 bps 03/31/2021 Designation Target-Date 2056-2060 Fund inception date 03/01/2012 Trust inception 03/23/2012 date Total net assets as \$16,604 of 03/31/2022 (\$M) Net fund assets as \$2,641 of 03/31/2022 (\$M) Benchmarked to Target 2060 Composite Index **CUSIP** 92202V179 Investment Vanguard Equity Index Group manager



		_	Annualized				
	Quarter-end	Year-to-date	1-year	3-year	5-year	10-year	
Trust	-5.64%	-5.64%	5.22%	12.88%	11.08%	10.36%	
Benchmark	-5.25%	-5.25%	5.78%	13.36%	11.43%	10.60%	
Spl Mixed-Asset Target 2055+Fds Avg	-6.30%	-6.30%	4.48%	12.28%	10.58%	9.62%	

Portfolio allocations to underlying funds (%)



•	54.2%	Total Stock Market Index Fund Institutional Plus
•	36.4	Institutional Total International Stock Market Index Trust II
•	6.5	Total Bond Market II Index Fund Institutional
•	2.9	Total International Bond II Index Fund

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. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

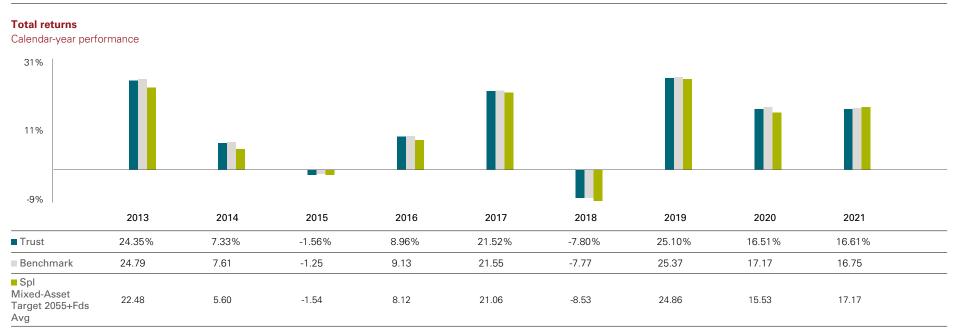
Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target 2060 Composite 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 US Index thereafter; for emerging-market stocks, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US 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 Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Spl Mixed-Asset Target 2055+Fds Avg: Mixed-Asset Target 2050 Funds Average through August 31, 2013; Mixed-Asset Target 2055+ Funds Average thereafter. Derived from data provided by Lipper, a Thomson Reuters Company. All data as of March 31, 2022, unless otherwise noted.



Vanguard Target Retirement 2060 Trust Plus



Target 2060 Composite 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 AII Cap ex US Index thereafter; for emerging-market stocks, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global AII Cap ex US 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 Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Spl Mixed-Asset Target 2055+Fds Avg: Mixed-Asset Target 2050 Funds Average through August 31, 2013; Mixed-Asset Target 2055+ Funds Average thereafter. Derived from data provided by Lipper, a Thomson Reuters Company.

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. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Vanguard Target Retirement 2055 Trust Plus

Investment approach

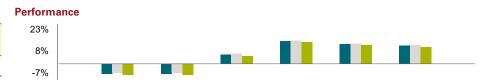
- Simple fund of funds structure seeks to build appropriate asset allocation from preselected stock and bond portfolios.
- The allocation between funds and asset classes automatically becomes more conservative over time.
- The trust handles investment selection, asset allocation, and rebalancing through retirement.
- 100% of assets invested in index funds

Risk and volatility

	R^2	Beta
Primary benchmark	1.00	1.00
Broad-based benchmark	0.98	0.85

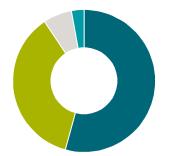
R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: MSCI US Broad Market Index.

Key facts Expense ratio as of 5.5 bps 03/31/2021 Designation Target-Date 2051-2055 Fund inception date 08/31/2010 Trust inception 11/30/2011 date Total net assets as \$36,196 of 03/31/2022 (\$M) Net fund assets as \$6,256 of 03/31/2022 (\$M) Benchmarked to Target 2055 Composite Index **CUSIP** 92202V344 Investment Vanguard Equity Index Group manager



		_	Annualized				
	Quarter-end	Year-to-date	1-year	3-year	5-year	10-year	
Trust	-5.66%	-5.66%	5.22%	12.84%	11.06%	10.32%	
Benchmark	-5.25%	-5.25%	5.78%	13.36%	11.43%	10.60%	
Spl Mixed-Asset Target 2055+Fds Avg	-6.30%	-6.30%	4.48%	12.28%	10.58%	9.62%	

Portfolio allocations to underlying funds (%)



•	54.3%	Total Stock Market Index Fund Institutional Plus
•	36.3	Institutional Total International Stock Market Index Trust II
•	6.5	Total Bond Market II Index Fund Institutional
•	2.9	Total International Bond II Index Fund

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Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target 2055 Composite 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 US Index thereafter; for emerging-market 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 US 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 Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Spl Mixed-Asset Target 2055+Fds Avg: Mixed-Asset Target 2050 Funds Average through August 31, 2013; Mixed-Asset Target 2055+ Funds Average thereafter. Derived from data provided by Lipper, a Thomson Reuters Company. All data as of March 31, 2022, unless otherwise noted.



Vanguard Target Retirement 2055 Trust Plus

Total returns Calendar-year performance 31% 11% 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 ■ Trust 15.74% 24.42% 7.32% -1.63% 9.00% 21.52% -7.83% 25.09% 16.44% 16.62% Benchmark 15.58 24.79 7.61 -1.25 9.13 21.55 -7.77 25.37 17.17 16.75 ■ Spl Mixed-Asset 15.36 22.48 -1.54 8.12 21.06 -8.53 15.53 17.17 5.60 24.86 Target 2055+Fds Avg

Target 2055 Composite 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 US Index threafter; for emerging-market 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 US Index threafter; 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 Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index threafter. International stock benchmark returns are adjusted for withholding taxes.

Spl Mixed-Asset Target 2055+Fds Avg: Mixed-Asset Target 2050 Funds Average through August 31, 2013; Mixed-Asset Target 2055+ Funds Average thereafter. Derived from data provided by Lipper, a Thomson Reuters Company.

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. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Vanguard Target Retirement 2050 Trust Plus

Investment approach

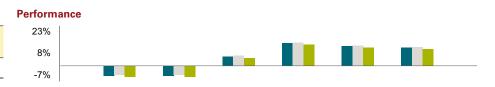
- Simple fund of funds structure seeks to build appropriate asset allocation from preselected stock and bond portfolios.
- The allocation between funds and asset classes automatically becomes more conservative over time.
- The trust handles investment selection, asset allocation, and rebalancing through retirement.
- 100% of assets invested in index funds.

Risk and volatility

eta
.00
.85
_

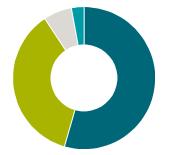
R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: MSCI US Broad Market Index.

Key facts Expense ratio as of 5.5 bps 03/31/2021 Designation Target-Date 2046-2050 Fund inception date 06/28/2007 Trust inception 08/15/2011 date Total net assets as \$55,751 of 03/31/2022 (\$M) Net fund assets as \$9,735 of 03/31/2022 (\$M) Benchmarked to Target 2050 Composite Index **CUSIP** 92202V351 Investment Vanguard Equity Index Group manager



		_	Annualized				
	Quarter-end	Year-to-date	1-year	3-year	5-year	10-year	
Trust	-5.66%	-5.66%	5.22%	12.84%	11.06%	10.35%	
Benchmark	-5.25%	-5.25%	5.78%	13.36%	11.43%	10.60%	
Mixed-Asset Target 2050 Funds Avg	-6.27%	-6.27%	4.41%	12.08%	10.35%	9.37%	

Portfolio allocations to underlying funds (%)



•	54.5%	Total Stock Market Index Fund Institutional Plus
•	36.2	Institutional Total International Stock Market Index Trust II
•	6.4	Total Bond Market II Index Fund Institutional
•	2.9	Total International Bond II Index Fund

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Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target 2050 Composite 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 US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through June 2, 2013, and the FTSE Global All Cap ex US 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 Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2050 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

All data as of March 31, 2022, unless otherwise noted.



Vanguard Target Retirement 2050 Trust Plus

Total returns Calendar-year performance 31% 11% 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 ■ Trust 15.78% 24.54% 7.32% -1.52% 8.96% 21.51% -7.82% 25.08% 16.47% 16.62% Benchmark 15.58 24.79 7.61 -1.25 9.13 21.55 -7.77 25.37 17.17 16.75 ■ Mixed-Asset Target 2050 15.36 21.48 5.51 -1.958.36 20.42 -8.48 24.29 15.31 17.00

Target 2050 Composite 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 US Index thereafter; for emerging-market 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 US 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 Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2050 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

Funds Ava

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Vanguard Target Retirement 2045 Trust Plus

Investment approach

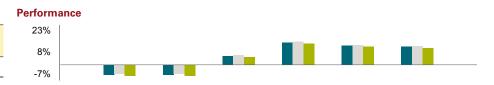
- Simple fund of funds structure seeks to build appropriate asset allocation from preselected stock and bond portfolios.
- The allocation between funds and asset classes automatically becomes more conservative over time.
- The trust handles investment selection, asset allocation, and rebalancing through retirement.
- 100% of assets invested in index funds.

Risk and volatility

	R ²	Beta
Primary benchmark	1.00	1.00
Broad-based benchmark	0.98	0.84

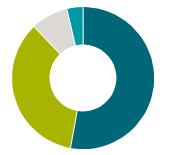
R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: MSCI US Broad Market Index.

Key facts Expense ratio as of 5.5 bps 03/31/2021 Designation Target-Date 2041-2045 Fund inception date 06/28/2007 Trust inception 08/15/2011 date Total net assets as \$66,968 of 03/31/2022 (\$M) Net fund assets as \$13,327 of 03/31/2022 (\$M) Benchmarked to Target 2045 Composite Index **CUSIP** 92202V369 Investment Vanguard Equity Index Group manager



		_	Annualized				
	Quarter-end	Year-to-date	1-year	3-year	5-year	10-year	
Trust	-5.67%	-5.67%	5.06%	12.70%	10.98%	10.30%	
Benchmark	-5.26%	-5.26%	5.58%	13.21%	11.34%	10.55%	
Mixed-Asset Target 2045 Funds Avg	-6.19%	-6.19%	4.29%	11.93%	10.32%	9.37%	

Portfolio allocations to underlying funds (%)



•	52.9%	Total Stock Market Index Fund Institutional Plus
•	35.0	Institutional Total International Stock Market Index Trust II
•	8.4	Total Bond Market II Index Fund Institutional
•	3.7	Total International Bond II Index Fund

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Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

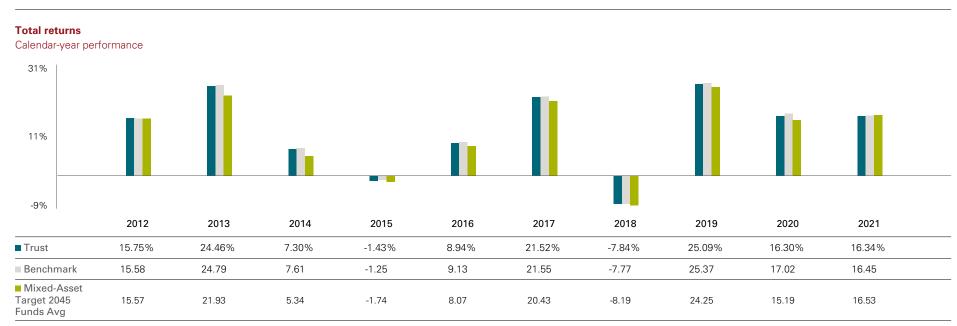
Target 2045 Composite Index: Derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through June 2, 2013, and the FTSE Global All Cap ex US 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 Hedged beginning June 3, 2013; 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 US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2045 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

All data as of March 31, 2022, unless otherwise noted.



Vanguard Target Retirement 2045 Trust Plus



Target 2045 Composite 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 US Index thereafter; for emerging-market 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 US 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 Hedged beginning June 3, 2013; 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 US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2045 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

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Vanguard Target Retirement 2040 Trust Plus

Investment approach

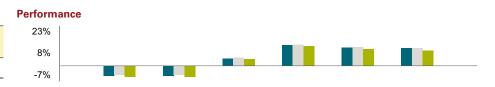
- Simple fund of funds structure seeks to build appropriate asset allocation from preselected stock and bond portfolios.
- The allocation between funds and asset classes automatically becomes more conservative over time.
- The trust handles investment selection, asset allocation, and rebalancing through retirement.
- 100% of assets invested in index funds.

Risk and volatility

R^2	Beta
1.00	1.00
0.97	0.78
	1.00

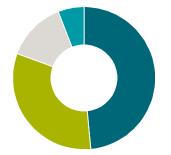
R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: MSCI US Broad Market Index.

Key facts Expense ratio as of 5.5 bps 03/31/2021 Designation Target-Date 2036-2040 Fund inception date 06/28/2007 Trust inception 08/15/2011 date Total net assets as \$70,344 of 03/31/2022 (\$M) Net fund assets as \$13,798 of 03/31/2022 (\$M) Benchmarked to Target 2040 Composite Index **CUSIP** 92202V377 Investment Vanquard Equity Index Group manager



		_	Annualized				
	Quarter-end	Year-to-date	1-year	3-year	5-year	10-year	
Trust	-5.66%	-5.66%	4.26%	11.80%	10.38%	9.97%	
Benchmark	-5.27%	-5.27%	4.76%	12.27%	10.72%	10.21%	
■ Mixed-Asset Target 2040 Funds Avg	-6.20%	-6.20%	3.76%	11.21%	9.69%	8.80%	

Portfolio allocations to underlying funds (%)



•	48.5%	Total Stock Market Index Fund Institutional Plus
•	32.1	Institutional Total International Stock Market Index Trust II
•	13.5	Total Bond Market II Index Fund Institutional
•	5.9	Total International Bond II Index Fund

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Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target 2040 Composite 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 US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through June 2, 2013, and the FTSE Global All Cap ex US 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 Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2040 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

All data as of March 31, 2022, unless otherwise noted.



Vanguard Target Retirement 2040 Trust Plus

Total returns Calendar-year performance 30% 11% 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 ■ Trust 15.71% 24.47% 7.30% -1.41% 8.77% 20.84% -7.27% 23.99% 15.60% 14.70% Benchmark 15.58 24.79 7.61 -1.25 8.98 20.86 -7.23 24.19 16.31 14.84 ■ Mixed-Asset Target 2040 14.65 19.85 5.32 -1.97 8.04 19.30 -7.9723.04 14.71 15.35 Funds Ava

Target 2040 Composite 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 US Index thereafter; for emerging-market 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 US 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 Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2040 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

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Vanguard Target Retirement 2035 Trust Plus

Investment approach

- Simple fund of funds structure seeks to build appropriate asset allocation from preselected stock and bond portfolios.
- The allocation between funds and asset classes automatically becomes more conservative over time.
- The trust handles investment selection, asset allocation, and rebalancing through retirement.
- 100% of assets invested in index funds.

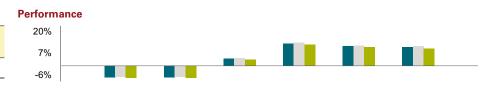
Risk and volatility

	R^2	Beta
Primary benchmark	1.00	1.01
Broad-based benchmark	0.97	0.71

R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark.

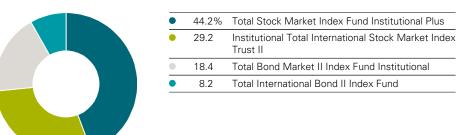
Broad-based benchmark: MSCI US Broad Market Index.

Key facts Expense ratio as of 5.5 bps 03/31/2021 Designation Target-Date 2031-2035 Fund inception date 06/28/2007 Trust inception 08/15/2011 date Total net assets as \$79,482 of 03/31/2022 (\$M) Net fund assets as \$16,700 of 03/31/2022 (\$M) Benchmarked to Target 2035 Composite Index **CUSIP** 92202V385 Investment Vanquard Equity Index Group manager



		_	Annualized				
	Quarter-end	Year-to-date	1-year	3-year	5-year	10-year	
Trust	-5.63%	-5.63%	3.48%	10.89%	9.69%	9.43%	
Benchmark	-5.29%	-5.29%	3.93%	11.35%	10.01%	9.65%	
Mixed-Asset Target 2035 Funds Avg	-5.91%	-5.91%	3.26%	10.45%	9.19%	8.54%	

Portfolio allocations to underlying funds (%)



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. The performance of a index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target 2035 Composite 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 US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through June 2, 2013, and the FTSE Global All Cap ex US 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 Hedged beginning June 3, 2013; 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 US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2035 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

All data as of March 31, 2022, unless otherwise noted.



Vanguard Target Retirement 2035 Trust Plus

Total returns Calendar-year performance 30% 11% 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 ■ Trust 15.34% 22.96% 7.30% -1.11% 8.39% 19.22% -6.51% 22.61% 14.92% 13.10% Benchmark 15.23 23.27 7.57 -1.02 8.55 19.25 -6.48 22.76 15.67 13.24 ■ Mixed-Asset Target 2035 14.66 19.90 5.23 -1.68 7.65 18.48 -7.2022.00 14.10 13.58 Funds Ava

Target 2035 Composite 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 US Index thereafter; for emerging-market 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 US 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 Hedged beginning June 3, 2013; 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 US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2035 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

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. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Vanguard Target Retirement 2030 Trust Plus

Investment approach

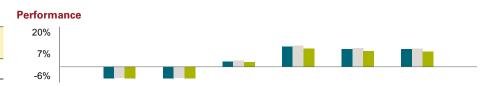
- Simple fund of funds structure seeks to build appropriate asset allocation from preselected stock and bond portfolios.
- The allocation between funds and asset classes automatically becomes more conservative over time.
- The trust handles investment selection, asset allocation, and rebalancing through retirement.
- 100% of assets invested in index funds.

Risk and volatility

R ²	Beta
1.00	1.01
0.97	0.64
	1.00

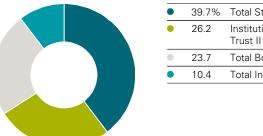
R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: MSCI US Broad Market Index.

Key facts Expense ratio as of 5.5 bps 03/31/2021 Designation Target-Date 2026-2030 Fund inception date 06/28/2007 Trust inception 08/15/2011 date Total net assets as \$81,515 of 03/31/2022 (\$M) Net fund assets as \$16,200 of 03/31/2022 (\$M) Benchmarked to Target 2030 Composite Index **CUSIP** 92202V393 Investment Vanguard Equity Index Group manager



		_	Annualized				
	Quarter-end	Year-to-date	1-year	3-year	5-year	10-year	
Trust	-5.63%	-5.63%	2.68%	9.95%	8.96%	8.79%	
Benchmark	-5.31%	-5.31%	3.10%	10.41%	9.28%	9.01%	
■ Mixed-Asset Target 2030 Funds Avg	-5.58%	-5.58%	2.44%	8.98%	8.00%	7.55%	

Portfolio allocations to underlying funds (%)



•	39.7%	Total Stock Market Index Fund Institutional Plus
•	26.2	Institutional Total International Stock Market Index Trust II
•	23.7	Total Bond Market II Index Fund Institutional
•	10.4	Total International Bond II Index Fund

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Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target 2030 Composite 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 US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through June 2, 2013, and the FTSE Global All Cap ex US 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 Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2030 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

All data as of March 31, 2022, unless otherwise noted.

Vanguard Target Retirement 2030 Trust Plus

Total returns Calendar-year performance 33% 13% -7% 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 ■ Trust 14.42% 20.59% 7.27% -0.89% 7.94% 17.63% -5.78% 21.21% 14.19% 11.49% Benchmark 14.31 20.88 7.51 -0.798.11 17.66 -5.75 21.34 14.97 11.66 ■ Mixed-Asset

Target 2030 Composite 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 US Index thereafter; for emerging-market 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 US 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 Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

16.22

-6.38

19.61

12.55

11.26

7.31

Mixed-Asset Target 2030 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

16.74

5.12

-1.80

Target 2030

Funds Ava

13.73

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Vanguard Target Retirement 2025 Trust Plus

Investment approach

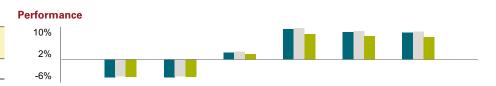
- Simple fund of funds structure seeks to build appropriate asset allocation from preselected stock and bond portfolios.
- The allocation between funds and asset classes automatically becomes more conservative over time.
- The trust handles investment selection, asset allocation, and rebalancing through retirement.
- 100% of assets invested in index funds.

Risk and volatility

	R^2	Beta
Primary benchmark	1.00	1.01
Broad-based benchmark	0.96	0.57

R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: MSCI US Broad Market Index.

Key facts Expense ratio as of 5.5 bps 03/31/2021 Designation Target-Date 2021-2025 Fund inception date 06/28/2007 Trust inception 08/15/2011 date Total net assets as \$72,421 of 03/31/2022 (\$M) Net fund assets as \$15,282 of 03/31/2022 (\$M) Benchmarked to Target 2025 Composite Index **CUSIP** 92202V419 Investment Vanguard Equity Index Group manager



		_		Anı	nualized		
	Quarter-end	Year-to-date	1-year	3-year	5-year	10-year	
Trust	-5.49%	-5.49%	2.01%	9.05%	8.25%	8.15%	
Benchmark	-5.21%	-5.21%	2.41%	9.50%	8.56%	8.37%	
Mixed-Asset Target 2025 Funds Avg	-5.30%	-5.30%	1.61%	7.67%	6.97%	6.79%	

Portfolio allocations to underlying funds (%)



•	34.6%	Total Stock Market Index Fund Institutional Plus
•	27.6	Total Bond Market II Index Fund Institutional
•	22.8	Institutional Total International Stock Market Index Trust II
•	12.2	Total International Bond II Index Fund
•	2.8	Short-Term Inflation-Protected Securities Index Fund Institutional

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Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

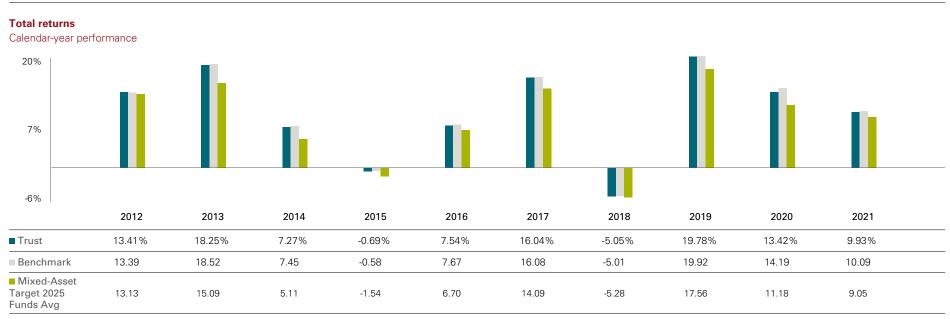
Target 2025 Composite Index: Derived by applying the fund's target asset allocation to the results of the following benchmarks: for international stocks of developed markets, the MSCI EAFE Index through December 15, 2010, the MSCI ACWI ex USA IMI Index through June 2, 2013, and the FTSE Global All Cap ex US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through June 2, 2013, and the FTSE Global All Cap ex US 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 Hedged beginning June 3, 2013; 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 US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2025 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

All data as of March 31, 2022, unless otherwise noted.



Vanguard Target Retirement 2025 Trust Plus



Target 2025 Composite 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 US Index thereafter; for emerging-market 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 US 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 Hedged beginning June 3, 2013; 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 US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2025 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

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Vanguard Target Retirement 2020 Trust Plus

Investment approach

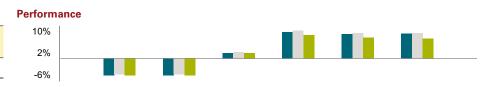
- Simple fund of funds structure seeks to build appropriate asset allocation from preselected stock and bond portfolios.
- The allocation between funds and asset classes automatically becomes more conservative over time.
- The trust handles investment selection, asset allocation, and rebalancing through retirement.
- 100% of assets invested in index funds.

Risk and volatility

	R^2	Beta
Primary benchmark	1.00	1.01
Broad-based benchmark	0.94	0.48

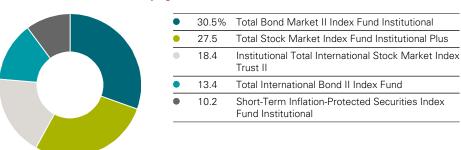
R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: MSCI US Broad Market Index.

Key facts Expense ratio as of 5.5 bps 03/31/2021 Designation Target-Date 2016-2020 Fund inception date 06/22/2007 Trust inception 08/15/2011 date Total net assets as \$36,208 of 03/31/2022 (\$M) Net fund assets as \$7,024 of 03/31/2022 (\$M) Benchmarked to Target 2020 Composite Index **CUSIP** 92202V427 Investment Vanguard Equity Index Group manager



		_		Anı	nualized	
	Quarter-end `	Year-to-date	1-year	3-year	5-year	10-year
Trust	-5.07%	-5.07%	1.47%	7.93%	7.35%	7.40%
Benchmark	-4.87%	-4.87%	1.80%	8.34%	7.63%	7.60%
■ Mixed-Asset Target 2020 Funds Avg	-5.13%	-5.13%	1.47%	7.06%	6.27%	5.89%

Portfolio allocations to underlying funds (%)



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Target 2020 Composite 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 US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through June 2, 2013, and the FTSE Global All Cap ex US 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 Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2020 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

All data as of March 31, 2022, unless otherwise noted.



Vanguard Target Retirement 2020 Trust Plus

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Total returns Calendar-year performance 25% 10% 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 ■ Trust 12.50% 15.94% 7.24% -0.54% 7.02% 14.19% -4.16% 17.73% 12.13% 8.25% Benchmark 12.47 16.21 7.37 -0.40 7.17 14.22 -4.13 17.87 12.85 8.43 ■ Mixed-Asset Target 2020 11.63 11.10 4.74 -1.596.05 11.77 -4.7015.73 10.44 8.56 Funds Ava

Target 2020 Composite 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 US Index thereafter; for emerging-market 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 US 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 Hedged beginning June 3, 2013; and for U.S. stocks, the MSCI US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2020 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

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Vanguard Target Retirement 2015 Trust Plus

Investment approach

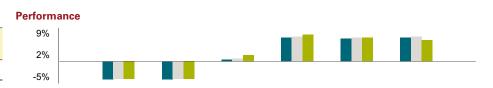
- Simple fund of funds structure seeks to build appropriate asset allocation from preselected stock and bond portfolios.
- The allocation between funds and asset classes automatically becomes more conservative over time.
- The trust handles investment selection, asset allocation, and rebalancing through retirement.
- 100% of assets invested in index funds.

Risk and volatility

	R^2	Beta
Primary benchmark	1.00	1.01
Broad-based benchmark	0.89	0.36

R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: MSCI US Broad Market Index.

Key facts Expense ratio as of 5.5 bps 03/31/2021 Designation Target-Date 2011-2015 Fund inception date 06/28/2007 Trust inception 08/15/2011 date Total net assets as \$12,416 of 03/31/2022 (\$M) Net fund assets as \$2,563 of 03/31/2022 (\$M) Benchmarked to Target 2015 Composite Index **CUSIP** 92202V435 Investment Vanquard Equity Index Group manager



		_		Anı	nualized		
	Quarter-end	Year-to-date	1-year	3-year	5-year	10-year	
Trust	-4.77%	-4.77%	0.45%	6.30%	6.02%	6.30%	
Benchmark	-4.62%	-4.62%	0.70%	6.61%	6.26%	6.46%	
Mixed-Asset Target 2015 Funds Avg	-4.70%	-4.70%	1.54%	7.05%	6.27%	5.66%	

Portfolio allocations to underlying funds (%)



•	36.4%	Total Bond Market II Index Fund Institutional
•	18.3	Total Stock Market Index Fund Institutional Plus
•	16.6	Short-Term Inflation-Protected Securities Index Fund Institutional
•	15.9	Total International Bond II Index Fund
•	12.8	Institutional Total International Stock Market Index Trust II

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Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target 2015 Composite 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 US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through June 2, 2013, and the FTSE Global All Cap ex US 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 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 Hedged beginning June 3, 2013; 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 US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2015 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

All data as of March 31, 2022, unless otherwise noted.



Vanguard Target Retirement 2015 Trust Plus

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Total returns Calendar-year performance 25% 10% 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 ■ Trust 11.50% 13.09% 6.67% -0.39% 6.30% 11.56% -2.94% 14.94% 10.44% 5.83% Benchmark 11.46 13.27 6.77 -0.22 6.40 11.61 -2.88 15.08 11.00 5.96 ■ Mixed-Asset Target 2015 10.40 9.21 4.39 -1.38 6.01 11.38 -4.18 15.41 10.45 8.08 Funds Ava

Target 2015 Composite 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 US Index thereafter; for emerging-market 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 US 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 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 Hedged beginning June 3, 2013; 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 US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Mixed-Asset Target 2015 Funds Avg: Derived from data provided by Lipper, a Thomson Reuters Company.

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Vanguard Target Retirement Income Trust Plus

Investment approach

- Simple fund of funds structure seeks to build appropriate asset allocation from preselected stock and bond portfolios.
- The allocation between funds and asset classes automatically becomes more conservative over time.
- The trust handles investment selection, asset allocation, and rebalancing through retirement.
- 100% of assets invested in index funds.

Risk and volatility

	R^2	Beta
Primary benchmark	1.00	1.01
Broad-based benchmark	0.22	0.71

R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: Bloomberg U.S. Aggregate Bond Index

Key facts	
Expense ratio as of 03/31/2021	5.5 bps
Designation	Retirement Income
Fund inception date	06/22/2007
Trust inception date	08/15/2011
Total net assets as of 03/31/2022 (\$M)	\$13,151
Net fund assets as of 03/31/2022 (\$M)	\$2,678
Benchmarked to	Target Income Composite Index
CUSIP	92202V468
Investment manager	Vanguard Equity Index Group



		_		Anı	nualized	
	Quarter-end	Year-to-date	1-year	3-year	5-year	10-year
Trust	-4.74%	-4.74%	0.21%	5.81%	5.37%	5.04%
Benchmark	-4.58%	-4.58%	0.49%	6.15%	5.61%	5.19%
Spl Mixed-Asset Target Today FdsAvg	-4.66%	-4.66%	0.30%	5.33%	4.91%	4.38%

Portfolio allocations to underlying funds (%)



•	36.7%	Total Bond Market II Index Fund Institutional
•	17.9	Total Stock Market Index Fund Institutional Plus
•	16.9	Short-Term Inflation-Protected Securities Index Fund Institutional
•	16.1	Total International Bond II Index Fund
•	12.4	Institutional Total International Stock Market Index Trust II

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Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Target Income Composite 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 US Index thereafter; for emerging-market stocks, the Select Emerging Markets Index through December 15, 2010, 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 US 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 (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 Hedged beginning June 3, 2013; 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 US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

Spl Mixed-Asset Target Today FdsAvg: Mixed-Asset Target Conservative Funds Average through June 30, 2012; Mixed-Asset Target Today Funds Average thereafter. Derived from data provided by Lipper, a Thomson Reuters Company. All data as of March 31, 2022. unless otherwise noted.



Vanguard Target Retirement Income Trust Plus

Total returns Calendar-year performance 20% -4% 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 ■ Trust 8.33% 5.87% 5.72% -0.08% 5.28% 8.61% -1.99% 13.31% 10.10% 5.27% Benchmark 8.42 6.03 5.76 0.13 5.35 8.68 -1.98 13.41 10.70 5.44 ■ Spl Mixed-Asset 8.84 4.99 3.96 -1.67 5.35 9.24 -3.46 8.65 5.68 13.16 **Target Today** FdsAvg

Target Income Composite 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 US Index thereafter; for emerging-market 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 US 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 through Local Cap ex US Index through Local Cap ex 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 Citiaroup Three-Month Treasury Bill Index through June 2, 2013; for international bonds, the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged beginning June 3, 2013; 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 US Broad Market Index through June 2, 2013, and the CRSP US Total Market Index thereafter. International stock benchmark returns are adjusted for withholding taxes.

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 vanquard.com/performance. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Figures for periods of less than one year are cumulative returns. All other figures represent average annual returns. Performance figures include the reinvestment of all dividends and any capital gains distributions. All returns are net of expenses.

Spl Mixed-Asset Target Today FdsAvg: Mixed-Asset Target Conservative Funds Average through June 30, 2012; Mixed-Asset Target Today Funds Average thereafter. Derived from data provided by Lipper, a Thomson Reuters Company.



Vanguard Target Retirement Income and Growth Trust Plus

Investment approach

- Simple fund of funds structure seeks to build appropriate asset allocation from preselected stock and bond portfolios.
- The trust handles investment selection, asset allocation, and rebalancing through retirement.
- 100% of assets invested in index funds.

Key facts

Expense ratio as of 09/28/2021	5.5 bps
Designation	Retirement Income
Fund inception date	09/28/2021
Trust inception date	02/17/2022
Total net assets as of 03/31/2022 (\$M)	\$18
Net fund assets as of 03/31/2022 (\$M)	\$0
Benchmarked to	Target Retirement Income and Growth Composite Index
CUSIP	92190C100
Investment manager	Vanguard Equity Index Group

Portfolio allocations to underlying funds (%)



•	30.7%	Total Bond Market II Index Fund Institutional
•	29.8	Total Stock Market Index Fund Institutional Plus
•	20.0	Institutional Total International Stock Market Index Trust II
•	13.0	Total International Bond II Index Fund
•	6.5	Short-Term Inflation-Protected Securities Index Fund Institutional

Target Retirement Income and Growth Composite Index: Derived by applying the fund's target asset allocation to the results of the following benchmarks: the CRSP US Total Market Index for U.S. stocks, the FTSE Global All Cap ex US Index for international stocks, the Bloomberg U.S. Aggregate Float Adjusted Index and the Bloomberg U.S. Treasury Inflation-Protected Securities (TIPS) 0–5 Year Index for U.S. bonds, and the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged for international stock benchmark returns are adjusted for withholding taxes.

Spl Mixed-Asset Target Today FdsAvg: Mixed-Asset Target Conservative Funds Average through June 30, 2012; Mixed-Asset Target Today Funds Average thereafter. Derived from data provided by Lipper, a Thomson Reuters Company. All data as of March 31, 2022. unless otherwise noted.



Vanguard Target Retirement Trusts

Investment commentary as of 3/31/2022

- Volatility surged and stock markets slumped during the first quarter of 2022. When the period began, rising prices and the prospect of less accommodative
 monetary policy were already weighing on market sentiment. Then Russia's invasion of Ukraine injected substantial uncertainty into the markets. Energy
 prices soared, helping to push consumer prices to multidecade highs across much of the world. Central banks in the United States and the United Kingdom,
 among others, raised short-term interest rates, and growth prospects dimmed, notably in European Central Bank continued to reduce its bond
 purchases, and the markets are expecting the ECB to raise rates later this year.
- Stocks regained some ground in March but finished the quarter down more than 5%, as measured by the FTSE Global All Cap Index. U.S. stocks performed roughly in line with the global market. Asia-Pacific stocks declined more modestly, and European and emerging-market stocks were among the laggards.
- Yields of U.S. Treasuries rose across the maturity spectrum, with more movement at the shorter end of the curve, given the prospect of more Federal Reserve interest rate hikes. The average spread in yields between Treasuries and corporate bonds widened. The broad U.S. investment-grade bond market declined about 6% (as measured by the Bloomberg U.S. Aggregate Float Adjusted Index).
- Non-U.S. bonds, as measured by the Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index (USD Hedged), returned –5.04% for the quarter.
- For the quarter, returns of the Vanguard Target Retirement Trusts ranged from –5.66% for both the Target Retirement 2040 Trust I and the Target Retirement 2045 Trust I to –4.73% for the Target Retirement Income Trust I. Those results reflected the performance of the underlying mutual funds in which the trusts invest.
- For the 12 months ended March 31, returns of the Target Retirement Trusts ranged from 0.22% for the Target Retirement Income Trust I to 5.22% for both the Target Retirement 2050 Trust I and the Target Retirement 2055 Trust I.



Investment approach

- Balanced asset allocation: 60%–70% stocks, 30%–40% bonds.
- Seeks long-term capital appreciation and reasonable current income, with moderate risk.
- Large- and mid-cap value stocks.
- Intermediate-, short-, and long-term government and investment-grade corporate bonds
- Fundamental, risk-controlled investment approach.

Portfolio allocation



•	64.7%	Stocks
•	33.5	Bonds
	1.8	Short-Term Reserves

Key facts

Expense ratio as of 03/30/2022	16 bps
As reported in the most re	cent prospectus.
Designation	Actively managed moderate

	moderate
Fund inception date	07/01/1929
Admiral™ Shares inception date	05/14/2001
Total net assets as of 03/31/2022 (\$M)	\$117,894
Net fund assets for VWENX as of 03/31/2022 (\$M)	\$103,165

Holdings	1,327
Benchmarked to	Wellington Composite Index

11/30/2021)	
CUSIP	921935201
Investment	Wellington Management

Company LLP

Risk and volatility

(fiscal year-end

manager

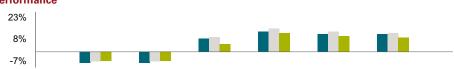
Fund turnover rate 35.3%

	R ²	Beta
Primary benchmark	0.97	0.94
Broad-based benchmark	0.95	0.62

R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark.

Broad-based benchmark: Dow Jones U.S. Total Stock Market Float Adjusted Index.

Performance



		_		An	nualized		
	Quarter-end	Year-to-date	1-year	3-year	5-year	10-year	
Fund	-6.37%	-6.37%	7.70%	11.68%	10.18%	9.92%	
Benchmark	-5.41%	-5.41%	8.45%	13.20%	11.46%	10.65%	
■ Mixed-Asset Target Growth Funds Avg	-5.22%	-5.22%	4.51%	10.49%	8.87%	8.18%	

Wellington Composite Index: 65% S&P 500 Index and 35% Lehman U.S. Long Credit AA or Better Bond Index through February 29, 2000; 65% S&P 500 Index and 35% Bloomberg U.S. Credit A or Better Bond Index thereafter.

Performance versus competitors

Percentage of Mixed-Asset Target Growth Funds outperformed by VWENX









Source: Lipper, a Thomson Reuters Company. Based on total returns as of March 31, 2022. Number of funds in category: 1-year, 451; 3-year, 424; 5-year, 403; 10-year, 297. Only funds with a minimum one-, three-, five-, or ten-year history, respectively, were included in the comparison. Results will vary for other time periods.

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. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Wellington Management Company LLP—Equities

Key facts

- Founded in 1928.
- Headquartered in Boston, Massachusetts.
- More than \$1.4 trillion in assets under management as of December 31, 2021.
- More than 2,900 employees worldwide.
- Serves as an investment advisor to nearly 2,000 institutions.
- Investment strategies offered include equity, fixed income, and multistrategy/alternative asset classes.

Portfolio management

Daniel J. Pozen, Senior Managing Director

- · Portfolio manager.
- Advised the fund since 2019.
- Worked in investment management since 1999.
- B.A., Williams College.
- M.B.A., Dartmouth College.

Manager highlights

- The Wellington Fund is the nation's oldest balanced mutual fund.
- The portfolio manager has significant investment experience and works with a dedicated team of analysts.

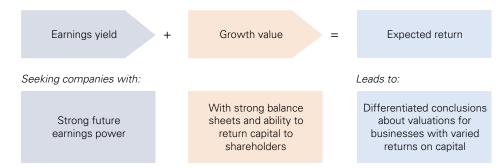
Investment focus

Asset class	Investment style	Portfolio turnover (target range)	Number of holdings (target range)	Investment theme
Large-cap equity	Relative value	25%–35%	60–90	Durable companies

Investment philosophy/process

- The core of the investment philosophy is that durable businesses at moderate valuations can deliver investment returns superior to the broad market with less risk.
- For Wellington, a durable business is one with stable cash flows across business cycles and a management team that makes prudent capital allocation decisions.
- The advisor uses a fundamental, bottom-up approach with a long-term time horizon to let durable companies compound at steady rates over time.
- It maintains a diversified portfolio with low turnover.
- Emphasis is placed on earnings growth, yield, and downside protection.

The disciplined process and proprietary intrinsic return model leads to differentiated insights



Equity characteristics

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505
207.4B
22.1x
4.3x
22.3%
20.9%
1.3%

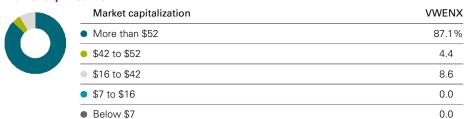
Sector diversification as a % of common stock



Sector	VWENX	Benchmark
 Information Technology 	22.4%	28.0%
Health Care	15.4	13.6
Financials	14.8	11.1
Consumer Discretionary	10.4	12.0
Industrials	9.8	7.9
 Communication Services 	9.1	9.4
Consumer Staples	7.3	6.1
Energy	3.9	3.9
Utilities	3.9	2.7
Real Estate	2.8	2.7
Materials	0.2	2.6

Sector categories are based on the Global Industry Classification Standard ("GICS"), except for the "Other" category (if applicable), which includes securities that have not been provided a GICS classification as of the effective reporting period.

Market-cap breakdown



Risk and volatility

	R-squared	Beta	Alpha	Standard deviation	Sharpe ratio
VWENX	N/A	N/A	-0.06	11.84	0.92
Primary benchmark	0.97	0.94	N/A	12.44	1.00
Broad-based benchmark	0.95	0.62	N/A	18.50	0.94

R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: Dow Jones U.S. Total Stock Market Float Adjusted Index.

Ten largest holdings

	% of total net assets
Microsoft Corp.	7.9%
Alphabet Inc.	5.4
Apple Inc.	4.1
Charles Schwab Corp.	4.0
Meta Platforms Inc.	2.9
Amazon.com Inc.	2.8
McDonald's Corp.	2.6
Procter & Gamble Co.	2.4
UnitedHealth Group Inc.	2.3
Pfizer Inc.	2.3
Top Ten as a % of Common Stock	36.7%
Top ten as a % of total net assets	23.9%

The holdings listed exclude any temporary cash investments and equity index products.

3-month attribution

	Portfolio		Benchmark			Attribution			
	Average weight	3-month return	Contribution to return	Average weight	3-month return	Contribution to return	Allocation effect	Select effect	Total effect
Health Care	14.7%	-0.9%	-0.1%	13.3%	-2.6%	-0.2%	0.0%	0.2%	0.3%
Information Technology	22.5	-8.0	-1.8	28.1	-8.4	-2.4	0.2	0.1	0.3
Utilities	3.4	11.0	0.4	2.6	4.7	0.1	0.1	0.2	0.3
Consumer Staples	7.1	-1.5	-0.2	6.1	-1.0	-0.1	0.0	0.0	0.0
Real Estate	2.2	-7.2	-0.1	2.7	-6.2	-0.2	0.0	0.0	0.0
Materials	0.0	-1.4	0.0	2.6	-2.4	-0.1	-0.1	0.0	-0.1
Financials	15.6	-4.0	-0.7	11.4	-1.5	-0.2	0.2	-0.4	-0.2
Communication Services	10.4	-15.0	-1.7	9.7	-11.9	-1.3	-0.1	-0.4	-0.4
Industrials	9.6	-6.6	-0.6	7.9	-2.4	-0.2	0.0	-0.4	-0.4
Consumer Discretionary	10.7	-14.9	-1.7	12.0	-9.0	-1.2	0.1	-0.7	-0.6
Energy	3.8	13.1	0.4	3.5	39.0	1.1	0.2	-0.8	-0.6
Total	100.0%	-6.1%	-6.1%	100.0%	-4.6%	-4.6%	0.7%	-2.2%	-1.5%

The portfolio attribution data shown above is provided by FactSet based on information provided by Vanguard about the fund's daily portfolio holdings as of the market close. Because the fund buys and sells stocks throughout the trading day and not necessarily at the market close, the attribution data shown above is an estimate and may not precisely reflect actual attribution information. Information noted above does not reflect fair-value adjustments to prices of foreign securities held in the portfolio.

Top contributors-3 month

	3-month return	Total effect	Ending weight	Benchmark weight
Shell plc	27.6%	0.4%	1.7%	0.0%
Exelon Corporation	15.3	0.3	1.7	0.1
AstraZeneca PLC	15.8	0.2	1.3	0.0
Progressive Corporation	11.2	0.2	1.8	0.2
Netflix Inc.	-37.8	0.2	0.0	0.4

Top detractors—3 month

	3-month return	Total effect	Ending weight	Benchmark weight
Meta Platforms Inc.	-33.9%	-0.6%	2.9%	1.3%
Berkshire Hathaway Inc.	18.0	-0.3	0.0	1.7
Exxon Mobil Corporation	36.5	-0.3	0.0	0.9
Chevron Corporation	40.2	-0.2	0.0	0.8
TJX Companies Inc.	-19.9	-0.2	1.3	0.2

12-month attribution

	1	Portfolio		В	enchmark		At	tribution	
	Average weight	12-month return	Contribution to return	Average weight	12-month return	Contribution to return	Allocation effect	Select effect	Total effect
Communication Services	12.6%	5.9%	1.5%	10.7%	-0.9%	0.2%	-0.2%	1.2%	0.9%
Health Care	14.8	25.4	3.5	13.1	19.1	2.5	0.1	0.8	0.9
Utilities	3.1	37.2	1.0	2.5	19.9	0.5	0.1	0.5	0.6
Financials	16.6	15.4	2.7	11.3	14.7	1.7	0.0	0.2	0.1
Materials	0.0	-1.4	0.0	2.6	13.9	0.4	0.0	0.0	0.0
Consumer Staples	6.7	15.1	0.9	5.9	16.1	0.8	0.0	-0.1	-0.1
Industrials	9.5	6.1	0.6	8.2	6.1	0.5	-0.1	0.0	-0.1
Real Estate	1.8	20.8	0.4	2.6	25.8	0.6	-0.1	-0.1	-0.2
Energy	3.0	27.0	0.7	2.9	64.3	1.6	0.2	-1.1	-0.9
Consumer Discretionary	10.8	0.4	0.1	12.3	9.8	1.3	0.0	-1.1	-1.0
Information Technology	21.3	15.3	3.1	27.8	20.9	5.6	-0.4	-1.1	-1.6
Total	100.0%	14.3%	14.3%	100.0%	15.6%	15.6%	-0.5%	-0.8%	-1.3%

The portfolio attribution data shown above is provided by FactSet based on information provided by Vanguard about the fund's daily portfolio holdings as of the market close. Because the fund buys and sells stocks throughout the trading day and not necessarily at the market close, the attribution data shown above is an estimate and may not precisely reflect actual attribution information. Information noted above does not reflect fair-value adjustments to prices of foreign securities held in the portfolio.

Top contributors-12 month

	12-month return	Total effect	Ending weight	Benchmark weight
Alphabet Inc.	34.9%	0.7%	5.4%	4.2%
PayPal Holdings Inc.	-52.4	0.6	0.0	0.4
Charles Schwab Corporation	30.6	0.5	4.0	0.3
Exelon Corporation	55.9	0.5	1.7	0.1
Blackstone Inc.	76.2	0.5	0.9	0.0

Top detractors - 12 month

	12-month return	Total effect	Ending weight	Benchmark weight
Meta Platforms Inc.	-24.5%	-1.0%	2.9%	1.3%
NVIDIA Corporation	104.6	-0.9	0.0	1.8
Tesla Inc.	61.3	-0.8	0.0	2.4
Apple Inc.	43.8	-0.7	4.1	7.1
Global Payments Inc.	-31.7	-0.7	1.0	0.1



Wellington Management Company LLP—Fixed income

Key facts

- Founded in 1928.
- Headquartered in Boston, Massachusetts.
- More than \$1.4 trillion in assets under management as of December 31, 2021.
- More than 2,900 employees worldwide.
- Serves as an investment advisor to nearly 2,000 institutions.
- Investment strategies offered include equity, fixed income, and multistrategy/alternative asset classes.

Portfolio management

Loren L. Moran, CFA, Senior Managing Director

- Portfolio manager.
- Advised the fund since 2017.
- Worked in investment management since 2006.
- B.S., Georgetown University.

Manager highlights

 The portfolio manager is an experienced investor, with more than 15 years of experience in the industry.

Investment focus

Investment focus	Investment style	Number of holdings (target range)	Investment theme
Investment- grade bonds	Intermediate term	N/A	Total return

Investment philosophy/process

- Wellington combines top-down strategies covering interest rates and interest rate volatility, and sector themes within investment-grade credit.
- It blends these strategies with the firm's proprietary research in corporate credit, mortgages, and structures finance.
- The resulting portfolio is diversified by issuer and industry.
- Wellington targets large, companies whose fortunes are stable or improving.
- The advisor actively rebalances the equity/fixed income exposure to ensure that
 the asset allocation of the fund is consistent with guidelines (60%–70% equity,
 30%–40% fixed income).

Fixed income characteristics

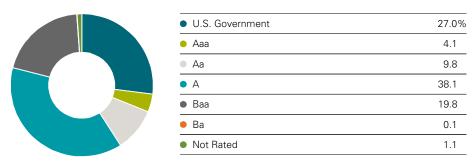
	VWENX	Benchmark
Number of bonds	1,256	4,012
Average duration	7.7 years	7.7 years
Average effective maturity	10.8 years	10.9 years

Distribution by issuer type

	% of total net assets
Finance	27.4%
Industrial	25.9%
Treasury/Agency	25.3%
Utilities	7.3%
Other	6.3%
Foreign	3.1%
Government Mortgage-Backed	2.6%
Asset-Backed	1.7%
Commercial Mortgage-Backed	0.4%

Hedged non-U.S. dollar-denominated bonds are included in the sector of issuer, not as part of the foreign category.

Distribution by credit quality as a % of funds



Credit-quality ratings are measured on a scale that generally ranges from AAA (highest) to D (lowest). "NR" is used to classify securities for which a rating is not available. NR securities may include a fund's investment in Vanguard Market Liquidity Fund or Vanguard Municipal Cash Management Fund, each of which invests in high-quality money market instruments and may serve as a cash management vehicle for the Vanguard funds, trusts, and accounts. U.S. Treasury, U.S. Agency, and U.S. Agency mortgage-backed securities appear under "U.S. Government." Credit-quality ratings for each issue are obtained from Bloomberg using ratings derived from Moody's Investors Service (Moody's), Fitch Ratings (Fitch), and Standard & Poor's (S&P). When ratings from all three agencies are available, the median rating is used. When ratings are available from two of the agencies, the lower rating is used. When one rating is available, that rating is used.



Total returns: Admiral Shares

Calendar-year performance



Wellington Composite Index: 65% S&P 500 Index and 35% Lehman U.S. Long Credit AA or Better Bond Index through February 29, 2000; 65% S&P 500 Index and 35% Bloomberg U.S. Credit A or Better Bond Index thereafter.

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Investment commentary as of 3/31/2022

- Volatility surged and stock markets slumped during the first quarter of 2022. When the period began, rising prices and the prospect of less accommodative monetary policy were already weighing on market sentiment. Then Russia's invasion of Ukraine injected substantial uncertainty into the markets. Energy prices soared, helping to push consumer prices to multidecade highs across much of the world. Central banks in the United States and the United Kingdom, among others, raised short-term interest rates, and growth prospects dimmed, notably in Europe.
- Stocks regained some ground in March but finished the quarter down more than 5%, as measured by the FTSE Global All Cap Index. U.S. stocks
 performed roughly in line with the global market. Asia-Pacific stocks declined more modestly, and European and emerging-market stocks were among the
 laggards.
- Yields of U.S. Treasuries rose across the maturity spectrum, with more movement at the shorter end of the curve, given the prospect of more Federal Reserve interest rate hikes. The average spread in yields between Treasuries and corporate bonds widened. The broad U.S. investment-grade bond market declined about 6% (as measured by the Bloomberg U.S. Aggregate Float Adjusted Index).
- Vanguard Wellington Fund underperformed its composite benchmark (-5.41%) and the average return of its peer group (-5.22%) for the quarter.
- The fund's equity component underperformed its benchmark, the Standard & Poor's 500 Index (-4.60%), because of weak selection effect. Stock selection was weakest in energy (+39.0%) and consumer discretionary (-9.0%).
- The fund's fixed income component slightly outperformed its benchmark, the Bloomberg U.S. Credit A or Better Bond Index (-7.02%).
- For the 12 months ended March 31, the fund underperformed its composite benchmark (+8.45%) but outpaced its peer average (+4.51%). The fund's equity portfolio underperformed the S&P 500 Index (+15.65%) amid a weak selection effect in energy (+64.4%) and information technology (+20.9%). The fund's fixed income portion outperformed its bond benchmark (-4.21%) for the period.

Notes: Company returns may differ if a security was held in the portfolio for less than the full period. Changes in yields may reflect rounding.



Expense ratio as of 12 has

Investment approach

- Long-term, high-quality bonds.
- Seeks high and sustainable current income.
- Fundamental, bottom-up credit selection process.
- Broadly diversified by issuer and industry sector.
- Moderate credit risk.

Fund advisors



•	82%	Wellington Management Company LLP
•	13	Vanguard Fixed Income Group
	5	Cash investments

Key facts

05/28/2021 As reported in the most re	'
Designation	Investment-grade corporate long-term
Fund inception date	07/09/1973
Admiral™ Shares inception date	02/12/2001
Total net assets as of 03/31/2022 (\$M)	\$18,716
Net fund assets for	\$14,139

Net fund assets for \$14,13 VWETX as of 03/31/2022 (\$M)

Tieranige	1,001
Benchmarked to	Bloomberg U.S. Long Credit A or Better Bond Index (103602)
Turnover rate	23.8%

1 391

Turnover rate
(fiscal year-end
01/31/2022)

Holdings

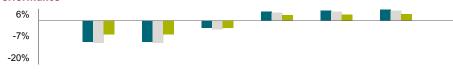
CUSIP 922031778

Risk and volatility

	R ²	Beta
Primary benchmark	0.99	0.99
Broad-based benchmark	0.82	2.49

R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: Bloomberg U.S. Aggregate Bond Index.

Performance



		_	Annualized				
	Quarter-end	Year-to-date	1-year	3-year	5-year	10-year	
Fund	-10.68%	-10.68%	-3.52%	4.29%	4.80%	5.32%	
Benchmark	-11.12%	-11.12%	-4.30%	3.88%	4.39%	4.84%	
Corporate A-Rated Debt Funds Avg	-6.90%	-6.90%	-3.66%	2.68%	2.87%	3.04%	

Performance versus competitors

Percentage of Corporate A-Rated Debt Funds outperformed by VWETX









Source: Lipper, a Thomson Reuters Company. Based on total returns as of March 31, 2022. Number of funds in category: 1-year, 32; 3-year, 32; 5-year, 31; 10-year, 24. Only funds with a minimum one-, three-, five-, or ten-year history, respectively, were included in the comparison. Results will vary for other time periods.

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. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.



Vanguard Long-Term Investment-Grade Fund—Managers

The fund employs a multimanager approach. By combining high-caliber managers who have differentiated strategies, the fund seeks to improve the relative predictability of outperformance.

Fund managers

	Vanguard Fixed Income Group	Wellington Management Company LLP
Manager start date	2013	1973
Portfolio manager (start date)	Daniel Shaykevich (2018) Samuel C. Martinez (2018) Arvind Narayanan (2019)	Scott I. St. John (2014)
Current allocation (as of March 31, 2022)	13%	82%
Characteristics	 Hub and satellite structure and decision-making framework promotes a consistently applied, robust process. The hub determines the macroeconomic outlook and strategic allocations of the fund. The satellites specialize in specific areas of the fixed income market and construct portfolios using bottom-up research for issuer and security selections. Smaller active bets on sector and issuer positioning. Manage duration with +/- 0.5 years of the benchmark. 	 The advisor seeks high and sustainable current income by investing in long-term, high-quality bonds with moderate credit risk. Adds value primarily through credit selection. Secondarily adds value through duration and yield curve management. Manages duration within +/- 2 years of benchmark.

Vanguard®

Vanguard Fixed Income Group—Firm overview

Key facts

- Investor-owned.*
- Headquartered in Malvern, Pennsylvania with offices around the world, including London, England, and Melbourne, Australia.
- More than \$2.0 trillion in assets under management globally.
- More than 170 portfolio managers, traders, analysts, researchers, and support staff.

Investment philosophy

- Vanguard's investor-aligned business model* allows clients to keep more of their potential return.
- The products are designed and managed to provide the opportunity to outperform while remaining true to the asset classes they represent.
- The active taxable team of more than 90 investment professionals is specialized and collaborative, allowing it to construct portfolios from diverse sets of high-information ratio strategies rather than relying on concentrated risk positions.
- Risk optimization is an integral part of the investment process, and lower fees
 enable the team to deliver competitive net alpha without taking undue risk.

Portfolio management

Daniel Shaykevich, Principal

- · Portfolio manager.
- Advised the fund since 2018.
- Worked in investment management since 2001.
- B.S., Carnegie Mellon University.

Samuel C. Martinez, CFA

- · Portfolio manager.
- Advised the fund since 2018.
- Worked in investment management since 2010.
- . B.S., Southern Utah University.
- M.B.A., The Wharton School of the University of Pennsylvania.

Arvind Narayanan, CFA

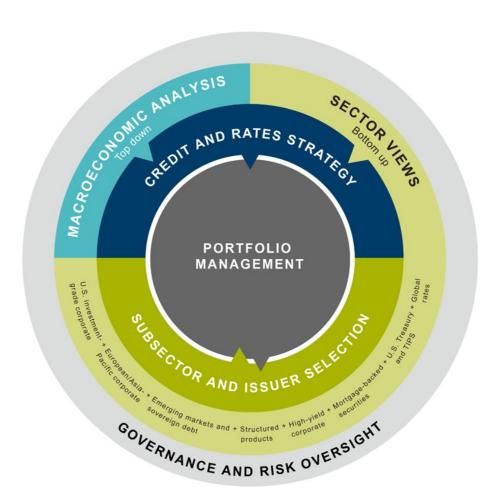
- · Portfolio manager.
- Advised the fund since 2019.
- Worked in investment management since 2002
- B.A., Goucher College.
- M.B.A., New York University Stern School of Business.

Source: Vanguard, as of March 31, 2022.

^{*} Vanguard is investor-owned, meaning the fund shareholders own the funds, which in turn own Vanguard. FOR FINANCIAL ADVISORS AND INSTITUTIONS ONLY. NOT FOR PUBLIC DISTRIBUTION.



Vanguard's active fixed income investment process



Input & analysis

- Senior Investment Committee and Investment Strategy Group inform top-down views on the economy, policy, and longer-term return outlook.
- **Sector teams** assess bottom-up fundamental, technical, and valuation opportunities.
- Credit and Rates Strategy teams leverage top-down and bottom-up inputs to form baseline strategy.

Decision

• Portfolio management teams determine asset allocation and portfolio strategy for each fund.

• **Sector teams** implement the portfolio strategy by identifying and executing bottom-up credit research, security selection and relative value opportunities.

Oversight

Senior Investment Committee

- Head of Fixed Income
- Head of Rates
- Chief Economist Head of
- Head of Risk Municipals Management
- governs the investment policies, Head of Credit portfolio guardrails, and global investment teams.
 - **Risk Management Group** oversees portfolio positioning and risk scenarios.

• Senior Investment Committee



Wellington Management Company LLP—Firm overview

Key facts

- Founded in 1928.
- Headquartered in Boston, Massachusetts.
- More than \$1.4 trillion in assets under management as of December 31, 2021.
- More than 2,900 employees worldwide.
- Serves as an investment advisor to nearly 2,000 institutions.
- Investment strategies offered include equity, fixed income, and multistrategy/alternative asset classes.

Portfolio management

Scott I. St. John, CFA, Senior Managing Director

- Portfolio manager.
- Advised the fund since 2014.
- Worked in investment management since 1995.
- B.S., Cornell University.
- M.B.A., University of Rochester.

Manager highlights

 The portfolio manager is highly experienced and is supported by Wellington's deep and global team of portfolio managers and credit research professionals.

Investment focus

Asset class	Investment style	Investment theme
Fixed income	Long-term credit	Long-term approach that delivers pure long-term investment-grade fixed income exposure.

Investment philosophy

 The advisor seeks to add value primarily through credit issue selection and secondarily through duration and yield curve management.

Investment process

Strategy	Idea generation	Fundamental analysis	Portfolio construction
Inputs • Sector trends. • Economic cycle. • Relative value.	Inputs Industry trends. Equity analysis. Credit research. Structure review.	Inputs: Investment conviction. Relative valuations. Expected returns. Client guidelines.	Inputs: • Expected volatilities. • Correlation assumptions. • Downside scenarios.
Outputs • Sector weightings. • Duration posture.	Outputs Industry biases.Credit ratings.Issuer.	Outputs: Credit quality allocations. Industry weights. Issuer selection. Diversification.	Outputs: • Spread duration. • Duration times spread (DTS). • Tracking risk.

Fixed income characteristics

	VWETX	Benchmark
Number of bonds	1,391	1,705
Average duration	14.6 years	14.7 years
Average effective maturity	22.4 years	23.5 years
Turnover (fiscal year end)	23.8%	_
Short-term reserves	4.3%	N/A

Distribution by issuer type

	% of total net assets
Industrial	42.2%
Finance	19.3%
Other	15.0%
Utilities	14.8%
Treasury/Agency	5.8%
Foreign	2.4%
Government Mortgage-Backed	0.3%
Commercial Mortgage-Backed	0.2%

Hedged non-U.S. dollar-denominated bonds are included in the sector of issuer, not as part of the foreign category.

Risk and volatility

	R-squared	Beta	Alpha	Standard deviation	Sharpe ratio
VWETX	N/A	N/A	0.03	11.08	0.32
Primary benchmark	0.99	0.99	N/A	11.12	0.28
Broad-based benchmark	0.82	2.49	N/A	4.03	0.23

R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: Bloomberg U.S. Aggregate Bond Index.

Distribution by effective maturity as a % of funds





Total returns: Admiral Shares

Calendar-year performance



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Investment commentary as of 3/31/2022

- Volatility surged and stock markets slumped during the first quarter of 2022. When the period began, rising prices and the prospect of less accommodative monetary policy were already weighing on market sentiment. Then Russia's invasion of Ukraine injected substantial uncertainty into the markets. Energy prices soared, helping to push consumer prices to multidecade highs across much of the world. Central banks in the United States and the United Kingdom, among others, raised short-term interest rates, and growth prospects dimmed, notably in Europe.
- Yields of U.S. Treasuries rose across the maturity spectrum, with more movement at the shorter end of the curve, given the prospect of more Federal Reserve interest rate hikes. The average spread in yields between Treasuries and corporate bonds widened. The broad U.S. investment-grade bond market declined about 6% (as measured by the Bloomberg U.S. Aggregate Float Adjusted Index).
- For the quarter, Vanguard Long-Term Investment-Grade Fund outperformed its benchmark, the Bloomberg U.S. Long Credit A or Better Bond Index (–11.12%), but underperformed the average return of its peer group (–6.90%). Positive security selection, particularly in industrials, added most to performance, as did an underweight allocation to credit risk. Yield curve positioning and an underweighting of utilities modestly detracted.
- For the 12 months ended March 31, the fund modestly outperformed its benchmark (–4.30%) and peer average (–3.66%). Strong selection, particularly in industrials and taxable municipals, helped most. An underweight allocation to credit risk and positioning on the yield curve also modestly boosted performance, while positions in technology and natural gas issuers weighed slightly on results.

Note: Changes in yields may reflect rounding.



FUND PERFORMANCE INSIGHTS

Vanguard Long-Term Investment-Grade Fund

Admiral™ Shares (VWETX)

Annualized (as of March 31, 2022)

Fund/Index/Average	Expense ratio (%)	One month (%)	Three months (%)	Six months (%)	Year- to-date (%)	One year (%)	Three years (%)	Five years (%)	Ten years (%)
Vanguard Long-Term Investment-Grade Fund Admiral Shares	0.12	-3.01	-10.68	-9.51	-10.68	-3.52	4.29	4.80	5.32
86% Wellington Management Company LLP		-3.01	-10.68	-9.60	-10.68	-3.72	4.26	4.72	5.24
14% Vanguard Fixed Income Group		-2.82	-10.76	-9.56	-10.76	-3.54	5.02	5.18	_
Bloomberg U.S. Long Credit A or Better Bond Index		-3.05	-11.12	-9.82	-11.12	-4.30	3.88	4.39	4.84
Corporate A-Rated Debt Funds Avg		-2.78	-6.90	-6.70	-6.90	-3.66	2.68	2.87	3.04
vs. Bloomberg U.S. Long Credit A or Better Bond Index		0.04	0.44	0.31	0.44	0.78	0.41	0.41	0.48
vs. Corporate A-Rated Debt Funds Avg		-0.23	-3.78	-2.81	-3.78	0.14	1.61	1.93	2.28

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Source: Vanguard.

Notes: Advisor portfolio weightings do not include any short-term reserves held by the fund. Expense ratios are from the fund's most recent prospectus. 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.

Commentary

The fund employs a multimanager approach. Two advisors provide solid capacity and greater potential access to new issues. Greater access to new issuance is particularly important in the long-term credit portion of the market because of higher trading costs. Both managers are focused on adding value through bottom-up, fundamental credit selection, not by seeking to make large bets on duration or sectors. This fund is of higher quality than the broad credit market, as it is benchmarked to the Bloomberg Barclays U.S. Long Credit A or Better Bond Index.

Volatility surged and stock markets slumped during the first quarter of 2022. When the period began, rising prices and the prospect of less accommodative monetary policy were already weighing on market sentiment. Then Russia's invasion of Ukraine injected substantial uncertainty into the markets. Energy prices soared, helping to push consumer prices to multidecade highs across much of the world. Central banks in the United States and the United Kingdom, among others, raised short-term interest rates, and growth prospects dimmed, notably in Europe.

Yields of U.S. Treasuries rose across the maturity spectrum, with more movement at the shorter end of the curve, given the prospect of more Federal Reserve interest rate hikes. The average spread in yields between Treasuries and corporate bonds widened. The broad U.S. investment-grade bond market declined about 6% for the quarter (as measured by the Bloomberg U.S. Aggregate Float Adjusted Index). The broad U.S. credit bond market returned –7.42% (as measured by the Bloomberg U.S. Credit Index), while the broad U.S. long credit bond market returned –11.23% (as measured by the Bloomberg U.S. Long Credit Index).

For the quarter, Vanguard Long-Term Investment-Grade Fund outperformed its benchmark (–11.12%) and underperformed its peer group (–6.90%). Outperformance relative to the benchmark was driven by security selection from both managers.



Investment approach

- Invests solely in U.S. Treasury obligations.
- Seeks current income.
- Seeks to maintain a constant \$1 net asset value (NAV).
- Maintains an average maturity of 60 days or less.

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Key facts

Expense ratio as of 9 bps 12/17/2021

As reported in the most recent prospectus.

Vanguard and the Fund's Board have voluntarily agreed to temporarily limit certain net operating expenses in excess of the Fund's daily yield so as to maintain a zero or positive yield for the Fund. Vanguard and the Fund's Board may terminate the temporary expense limitation at any time.

Designation	Taxable
Fund inception date	12/14/1992
Investor Shares inception date	12/14/1992
Total net assets as of 03/31/2022 (\$M)	\$34,249
Net fund assets for VUSXX as of 03/31/2022 (\$M)	\$34,249
Benchmarked to	iMoneyNet Money Fund Report's 100% Treasury Funds Average
CUSIP	921932109
SEC yield*	0.20%
Investment manager	Vanguard Fixed Income Group

^{*}Seven-day current yield net of expenses. The yield quotation more closely reflects the current earnings of the fund than the total return quotation.

Money market characteristics

	VUSXX
Average maturity	32 days
Weighted average life	66 days

Performance



		_		An	nualized	
	Quarter-end	Year-to-date	1-year	3-year	5-year	10-year
Fund	0.02%	0.02%	0.03%	0.68%	1.02%	0.55%
Benchmark	0.00%	0.00%	0.01%	0.48%	0.71%	0.36%

Performance versus competitors

Percentage of iMoneyNet MFR Treasury Funds outperformed by VUSXX









Source: Lipper, a Thomson Reuters Company. Based on total returns as of March 31, 2022. Number of funds in category: 1-year, 42; 3-year, 38; 5-year, 35; 10-year, 30. Only funds with a minimum one-, three-, five-, or ten-year history, respectively, were included in the comparison. Results will vary for other time periods.

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Vanguard Fixed Income Group—Firm overview

Key facts

- Investor-owned.*
- Headquartered in Malvern, Pennsylvania with offices around the world, including London, England, and Melbourne, Australia.
- More than \$2.0 trillion in assets under management globally.
- More than 170 portfolio managers, traders, analysts, researchers, and support staff.

Portfolio management

Nafis T. Smith

- · Portfolio manager.
- Advised the fund since 2017.
- Worked in investment management since 2003.
- B.A., Cornell University.

Manager highlights

- Nafis T. Smith, Head of Vanguard's Taxable Money Market Funds, has direct oversight responsibility for all taxable money market funds managed by the Fixed Income Group.
- Mr. Smith is supported by a team of dedicated money market traders.

Investment philosophy/process

- The foundation for Vanguard money market funds' investment philosophy is a consistent focus on several key principles:
 - Low expense ratios.
 - High standards for managing credit.
 - Preserving liquidity through conservative fund management.
 - Guarding against disruptive redemption relationships.
- The portfolio managers seek to add value primarily by emphasizing specific issues that appear attractively priced based on historical yield-spread relationships.

Cash-flow forecasts

- Identify known cash flow into/out of the fund.
- Evaluate current and future liquidity requirements.

Integrate market outlook

- Utilize Vanguard's outlook for interest rate and market changes.
- Integrate internal and external restrictions with familiarity around issuance.

Portfolio management

- Identify relative value opportunities.
- Seek to add value through maturity management and issue selection.

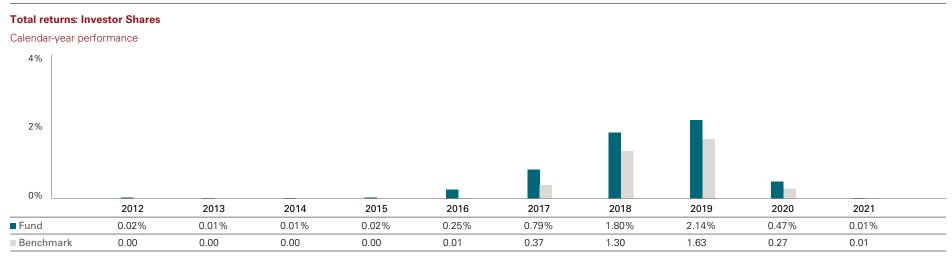
Source: Vanguard, as of March 31, 2022.

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Distribution by issuer type

	% of total net assets
U.S. Treasury Bills	85.4%
U.S. Govt. Obligations	14.6%
Certificates of Deposit	0.0%
U.S. Commercial Paper	0.0%
Repurchase Agreements	0.0%
Other	0.0%
Yankee/Foreign	0.0%
Bankers Acceptances	0.0%



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Investment commentary as of 3/31/2022

- Volatility surged and stock markets slumped during the first quarter of 2022. When the period ended March 31 began, rising prices and the prospect of less-accommodative monetary policy were already weighing on market sentiment. Then Russia's invasion of Ukraine injected substantial uncertainty into the markets. Energy prices soared, helping to push consumer prices to multidecade highs across much of the world. Central banks in the United States and the United Kingdom, among others, raised short-term interest rates, and growth prospects dimmed, notably in Europe. Against this backdrop, the average spread in yields between Treasuries and corporate bonds widened, the broad U.S. investment-grade bond market declined about 6% (as measured by the Bloomberg U.S. Aggregate Float Adjusted Index), and money market yields rose.
- Yields of U.S. Treasuries rose across the maturity spectrum in the first quarter after a short-term interest rate hike by the Federal Reserve and the anticipation of continued hikes through 2022. The steepest yield increases were in the intermediate part of the curve. The 3-month yield increased 45 basis points to 0.48%, the 2-year yield increased 160 basis points to 2.33%, the 5-year yield rose 120 basis points to 2.46%, and the 10-year yield rose 83 basis points to 2.34%. (A basis point is one-hundredth of a percentage point.)
- In this environment, Vanguard Treasury Money Market Fund returned 0.02% for the three months and had a 30-day SEC yield of 0.20% at quarter-end. The average return of its peers was 0.00%. The weighted average maturity of the fund's securities was 32 days, and their weighted average life was 66 days.
- As of March 31, 100% of the fund's assets were invested in Treasury securities; roughly 20% of fund assets were allocated to floating-rate Treasury notes. Holding these securities allows the advisor to gain incremental yield as rates rise while maintaining the fund's short-maturity profile. The rest of the fund's assets were invested in fixed-rate Treasury bills and notes with short-term maturities.
- For the 12 months ended March 31, the Treasury yield curve increased in curvature as intermediate yields rose more than short- and long-term yields. The 3-month yield rose 47 basis points, while the 2-year yield increased by 217 basis points and the 5-year yield by 152 basis points. Further out in maturity, the 10-year yield rose 60 basis points and the 30-year yield rose 4 basis points. The fund returned 0.03%; the average return of its peers was 0.01%.

Note: Changes in yields may reflect rounding.

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

IMPORTANT: The projections or other information generated by the Vanguard Capital Markets Model® (VCMM) regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. VCMM results will vary with each use and over time.

The VCMM projections are based on a statistical analysis of historical data. Future returns may behave differently from the historical patterns captured in the VCMM. More importantly, the VCMM may be underestimating extreme negative scenarios unobserved in the historical period on which the model estimation is based.

The Vanguard Capital Markets Model® is a proprietary financial simulation tool developed and maintained by Vanguard's primary investment research and advice teams. The model forecasts distributions of future returns for a wide array of broad asset classes. Those asset classes include U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. money markets, commodities, and certain alternative investment strategies. The theoretical and empirical foundation for the Vanguard Capital Markets Model is that the returns of various asset classes reflect the compensation investors require for bearing different types of systematic risk (beta). At the core of the model are estimates of the dynamic statistical relationship between risk factors and asset returns, obtained from statistical analysis based on available monthly financial and economic data from as early as 1960. Using a system of estimated equations, the model then applies a Monte Carlo simulation method to project the estimated interrelationships among risk factors and asset classes as well as uncertainty and randomness over time. The model generates a large set of simulated outcomes for each asset class over several time horizons. Forecasts are obtained by computing measures of central tendency in these simulations. Results produced by the tool will vary with each use and over time.

The Vanguard Lifecycle Model (VLCM) is designed to identify the product design that represents the best investment solution for a theoretical, representative investor who uses the target-date funds to accumulate wealth for retirement. The VLCM generates an optimal custom glide path for a participant population by assessing the trade-offs between the expected (median) wealth accumulation and the uncertainty about that wealth outcome, for thousands of potential glide paths. The VLCM does this by combining two set of inputs: the asset class return projections from the VCMM and the average characteristics of the participant population. Along with the optimal custom glide path, the VLCM generates a wide range of portfolio metrics such as a distribution of potential wealth accumulation outcomes, risk and return distributions for the asset allocation, and probability of ruin, such as the odds of participants depleting their wealth by age 95.

The VLCM inherits the distributional forecasting framework of the VCMM and applies to it the calculation of wealth outcomes from any given portfolio.

The most impactful drivers of glide path changes within the VLCM tend to be risk aversion, the presence of a defined benefit plan, retirement age, savings rate and starting compensation. The VLCM chooses among glide paths by scoring them according to the utility function described and choosing the one with the highest score. The VLCM does not optimize the levels of spending and contribution rates. Rather, the VLCM optimizes the glide path for a given customizable level of spending, growth rate of contributions and other plan sponsor characteristics.

A full dynamic stochastic life-cycle model, including optimization of a savings strategy and dynamic spending in retirement is beyond the scope of this framework.

Important information

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 inflation are expected to be high. Overall, investors can expect income fluctuations to be high for the fund.

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.

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.

Vanguard collective trusts are not mutual funds. They are collective trusts available only to tax-qualified plans and their eligible participants. Investment objectives, risks, charges, expenses, and other important information should be considered carefully before investing. The collective trust mandates are managed by Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc.

A stable value investment is neither insured nor guaranteed by the U.S. government. There is no assurance that the investment will be able to maintain a stable net asset value, and it is possible to lose money in such an investment.

Vanguard Marketing Corporation, Distributor of the Vanguard Funds. U.S. Patent Nos. 6,879,964.

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The Factor Funds are subject to investment style risk, which is the chance that returns from the types of stocks in which a Factor Fund invests will trail returns from U.S. stock markets. The Factor Funds are also subject to manager risk, which is the chance that poor security selection will cause a Factor Fund to underperform its relevant benchmark or other funds with a similar investment objective, and sector risk, which is the chance that significant problems will affect a particular sector in which a Factor Fund invests, or that returns from that sector will trail returns from the overall stock market.

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Vanguard Target Retirement Funds and Trusts

Quarterly Review | March 31, 2022



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Executive summary

Investors brace for a bumpy 2022

Russia's invasion of Ukraine injected additional uncertainty into markets already facing significant challenges from tightening monetary policy and slowing growth. Stock indexes tumbled into correction territory (a reversal of at least –10%) amid February's geopolitical events before changing course to stage a robust rebound in March. Despite this, global equities posted their weakest quarter in two years, and only U.S. stocks are at higher levels from where they were 12 months ago. Bond indexes also slipped, delivering their worst quarter in more than two decades as a more hawkish Fed began hiking interest rates to combat inflation.

The topsy-turvy first quarter reminds us that volatility is an uncomfortable yet normal aspect of investing. At times like these, it's important to remember that successful long-term outcomes develop over decades and aren't determined by the events of a single quarter or year. But it's tempting to think otherwise, and this month's Quarterly spotlight focuses on why it's all too easy for investors to confuse short-term performance metrics as indicators of longer-term results.

Performance of key Vanguard index funds

Fund name (inception date)	2Q 2021	3Q 2021	4Q 2021	1Q 2022	1-year
Vanguard Total Bond Market Index Fund (09/18/1995)	2.00%	0.11%	-0.08%	-5.98%	-4.07%
Vanguard Total International Bond Index Fund (05/31/2013)	0.27%	0.06%	-0.20%	-4.98%	-4.87%
Vanguard Total Stock Market Index Fund (07/07/1997)	8.29%	-0.06%	9.16%	-5.46%	11.68%
Vanguard Total International Stock Index Fund (11/29/2010)	5.53%	-3.00%	2.12%	-6.07%	-1.81%

In this edition

TDF performance: A marathon, not a sprint

View

We take a closer look at how Vanguard Target Retirement Funds have consistently outperformed their peers with less volatility over longer time frames despite not always ranking among the topperforming funds in a given year. Just like the marathon runner who maps out his race and seeks a steady pace, Vanguard designs its target-date funds (TDFs) to deliver long-term outcomes that benefit investors and participants.

Once again, we appreciate your commitment to TDF investing and welcome your comments and feedback.



Vanguard on the web

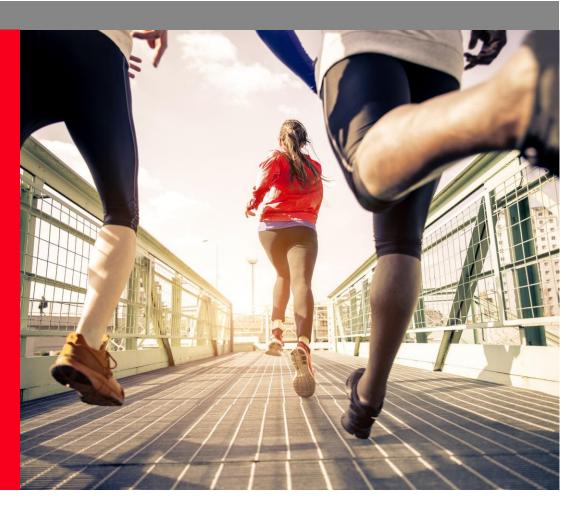
For the latest insights on the conflict in Ukraine and market uncertainty, visit our website.

View online

Source of performance figures: Vanguard, Institutional share class, as of March 31, 2022.

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 www.institutional.vanquard.com. Standard performance of the funds can be located on page 29 of the Quarterly Review.

TDF performance: A marathon, not a sprint



By their nature, target-date funds (TDFs) are long-term investments. They're designed for investors who may remain invested in the TDF for decades—and potentially over their entire lifetimes.

But human nature can tell another story.

Short-term performance can grab our attention, especially when markets shift dramatically like they have over the past several years.

Participants can get excited or distraught when markets move significantly in either direction.

Despite these distractions, retirement plan fiduciaries have an obligation to remain focused on the long term. Due diligence requires monitoring TDF performance and sufficiency—which is not necessarily as straightforward a task as some might imagine.

In the third-quarter 2020 edition of *Vanguard Target Retirement Funds and Trusts Quarterly Review*, we spotlighted a series of different metrics that we believe are needed to adequately gauge whether a TDF is achieving its mandate for retirement investors. The article, The TDF Performance Mosaic: Piecing Together the Full Story, also highlighted the challenges associated with

analyzing and comparing the TDF series, specifically the presence of multiple vintages, each with its own asset allocation, and the different approaches that each TDF provider uses for everything from glide-path construction and sub-asset allocation to benchmark implementation and rebalancing.

In this quarter's Spotlight piece, we build upon that discussion of TDF assessment metrics by layering in another critical element: the most appropriate time frames over which to gauge TDF sufficiency. After all, TDFs that dazzle in one year but lag in another risk not capitalizing on the benefits of consistency.

What's more, short-term performance benchmarking doesn't help TDF investors answer the most important questions:

- What long-term return does an investor need to earn to accumulate enough money for retirement?
- Does the investment provider expect its mix of embedded asset allocation guidance and fund selections to meet this return threshold?
- Is the fund meeting these expectations?
- · What risks are implied by these expectations?

Answering these questions in detail is beyond the scope of this article. Suffice to say that our research continues to affirm that relative long-term consistency, not short-term sprints, is what can lead to better retirement readiness outcomes for TDF investors.

An appropriate time frame for performance measurement

In our digitized world, we're conditioned to consume bitesize chunks of information that tend to focus on one-year, quarterly, or even daily fund performance figures. While understanding the drivers of short-term performance is important to ensure that a TDF is performing as expected based on the underlying asset allocation, we think it's critical not to overanchor to short-term performance.

The short-term performance race is often decided by how aggressive the glide path is relative to peers. But the TDF with a higher allocation to stocks that leads the pack when stocks are rising is vulnerable to underperforming in a stock market downturn.

The value of consistency

As our clients know well, Vanguard has always concentrated on the long-distance run, not the sprint. Given the potential multidecade investment horizon and the mandate of a TDF to help investors achieve retirement readiness, we place a high value on the consistency of results, not on a race to "break the tape" in any given year.

Just as professional marathoners know the importance of not running too fast too early, we don't want our Target Retirement Funds to be racing to the lead in a quarter or year only to fall back later to the rear. We think investors are best served when TDFs seek to avoid extremes in their returns and instead focus on consistency. After all, their role as qualified default investment alternatives (QDIAs) requires a careful approach.

Figure 1 illustrates the value of this approach with the performance and associated Morningstar peer-group ranking of Vanguard Target Retirement 2025 Fund in each of the last 10 years. Our prudent asset allocation strategy means that yearly peer performance rankings typically landed around the second quartile. This consistency translated into a 10-year annualized total return that ranked in the top quartile.



The annual total return of Vanguard Target Retirement 2025 Fund as ranked in its Morningstar[™] peer group is indicated in the years 2012 through 2021. 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 130 in 2012 to 225 in 2021. Only the 130 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 page 26 for Vanguard Target Retirement 2025 Fund's 1-, 5-, and 10-year performance data as of March 31, 2022.

Sources: Vanguard and Morningstar, Inc., as of December 31, 2021.



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 www.vanguard.com/performance. There may be other material differences between products that must be considered before investing.

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To expand on this idea, Figure 2 presents another perspective on the benefit of Vanguard's risk-controlled approach. The graph shows relative performance over 3-, 5-, and 10-year periods, with risk measured on the horizontal axis and annualized returns on the vertical axis. We focus on the risk-adjusted returns because it's important to be rewarded over time for the age-appropriate risk level of a portfolio. Risk-adjusted returns are also the most useful measure for comparing funds because they tell you whether a particular fund is taking on unnecessary risk to generate a higher total return.

Note that Figure 2's red dots represent Vanguard vintages, while the other scattered dots represent the rest of the TDF peer group. While the performance of other TDFs varies from above-average to below-average along the time axis, the performance of Vanguard Target Retirement Funds remain in the upper echelon.

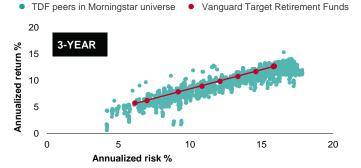
Three vintages in our Target Retirement Fund suite—the Target Retirement Income, 2025, and 2050 funds—represent a useful cross-section to examine, as they show key points along the glide path. Each fund has a track record of 15 years or longer. Each fund ranked in the top quartile of its performance rankings against its Morningstar peer group for 10-year rolling periods from near their inception to the end of 2021. Averaging out their rankings over those rolling periods, each fund outperformed its peer-group average 100% of the time.¹

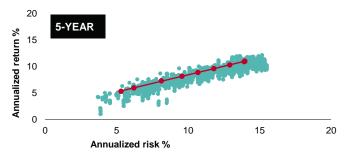
Short-term consistency, long-term outperformance

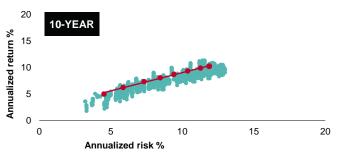
In short, the runner training for a marathon needs to know how to keep a sustainable pace to reach the goal in the targeted time frame. Outperforming a peer group most of the time in the short run while staying within a prudent target asset allocation raises the chance of notable outperformance in the long term.

Our Target Retirement Funds series launched in 2003, making them among the earliest TDFs to be index based. They've navigated many different market environments—good, bad, and everything in between—and through it all, year in and year out, our fund suite has provided a consistent experience for our investors. This kind of long-term performance track record can provide plan sponsors with the confidence that Vanguard Target Retirement Funds remain a proven way to position participants for retirement readiness and financial well-being.

Figure 2: A history of consistently strong riskadjusted performance







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 before 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, 2022. Vanguard Investor Shares highlighted.

¹The three vintages were chosen because they represent scenarios for those who are well into retirement, those nearing retirement, and those further from retirement, and because each fund has a track record of at least 15 years. The analysis reviewed 10-year returns on a rolling quarterly basis from June 30, 2006, through December 31, 2021. Only competing funds with a 10-year history for the relevant period were included. For the Income Fund, the number of funds in the peer group ranged from 35 in the earliest periods to 110 in the most recent periods; for the 2025 Fund, from 10 to 130; and for the 2050 fund, from 26 to 131. Vanguard Target Retirement Income Fund ranked in the top quartile 74% of the rolling 10-year periods (17 out of 23 periods) and outperformed the peer-group average in all those 10-year periods. Vanguard Target Retirement 2025 Fund ranked in the top quartile 87% of periods (20 out of 23) and outperformed the peer-group average in all those periods. Vanguard Target Retirement 2050 Fund ranked in the top quartile 65% of periods (15 out of 23) and outperformed the peer-group average in all those periods. Results vary with different time periods. Sources: Vanguard and Morningstar, Inc., as of December 31, 2021. 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.

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 Advice Policy Committee, thereby ensuring a consistent approach in our single-fund solutions and advice offers.











Joseph Davis, Ph.D., Global Chief Economist and Global Head of Investment Strategy Group (Committee Chair)
Roger Aliaga-Díaz, Ph.D., Chief Economist, Americas, Head of Portfolio Construction (Committee Vice-chair)
Matthew Brancato, CFA, CPA, Head of Institutional Investor Services









Dan Reyes, CFA, Head of Portfolio Review Department
Joel Dickson, Ph.D., Head of Enterprise Advice Methodology
Ryan Ludt, European Regional Head of Investment Management Group
Kaitlyn Caughlin, CFA, CFP®, Global Head of IMG Risk Management









Duncan Burns, Head of Investments, Asia-Pacific, and of Investment Strategy Group, Asia-Pacific Qian Wang, Ph.D., Chief Economist, Asia-Pacific, Investment Strategy Group Brian Wimmer, Head of Multi-Asset Solutions (nonvoting member)

lan Kresnak, CFA, Chief of Staff, Investment Strategy Group (nonvoting member)

Additional perspectives from the SAAC

A primary responsibility of the SAAC is to oversee the policy allocation of Vanguard's suite of multi-asset portfolios, including a formal annual review. The SAAC has also been tasked with establishing the investment methodology and portfolio construction approaches that are most appropriate for various objectives. Since its founding in 2013, the SAAC has held research meetings to discuss investment topics, seeking the best outcomes for our clients through constant debate. These meetings, often showcasing the latest research by Vanguard Investment Strategy Group, have centered on a wide range of subjects. A summary of past topics is provided below.

2013

- · Hedging currency exposure in a multiasset portfolio
- · Role of commodity futures
- · Minimum-volatility equity strategies

2014

- · Equity home bias by country
- · Glide-path construction methodology
- · Inflation protection

2015

- · Approaches to retirement income
- Factors and strategic asset allocation
- Fixed income glide-path allocations

2016

- Time-varying risk premia and asset allocation
- Expansion of the Vanguard Capital Markets Model®
- · Inflation-hedging strategies over multiyear horizons

2017

- Long-run equilibrium risk-free rates and the equity risk premia
- · Diversified versus concentrated active equity portfolios
- Global methodology for non-market-cap-weighted ETF model portfolios

2018

- · Role of private real estate in portfolios
- Vanguard Life-Cycle Model (VLCM) and glide-path outcomes
- Inflation protection in a 529 college savings plan

2019

- Vanguard Asset Allocation Model (VAAM) and optimal allocations to active and passive strategies
- VAAM-based investment methodology for ETF-model portfolios
- Return-targeting and time-varying asset allocation

2020

- VLCM-derived glide paths for 529 college savings plans
- · Role of private equity in multiasset portfolios

2021

· A systematic framework for validating TDF glide paths



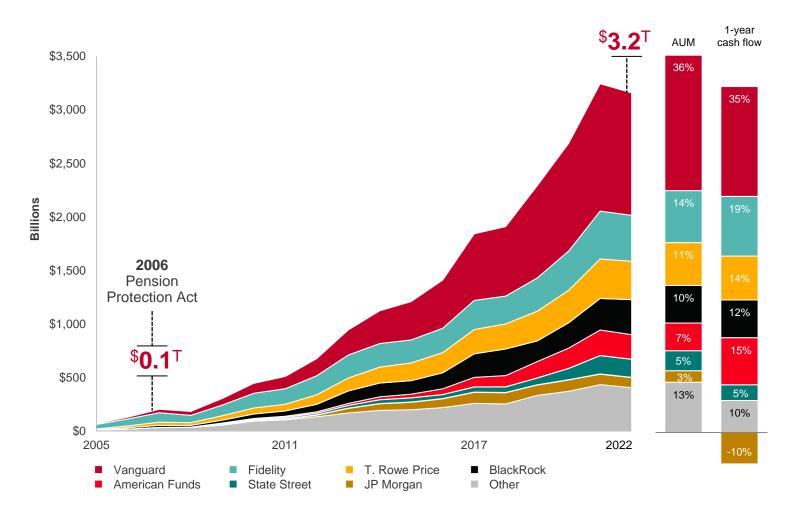
IN THIS SECTION:

Industry growth and market share Market environment



Industry growth and market share

Figure 9.1 Growth of target-date fund industry assets and market share



According to data from Morningstar combined with Vanguard's funds and trusts data, TDF industry assets exceeded \$3.15 trillion as of the end of 1Q 2022. Vanguard continued to lead the industry in cash flow and assets under management, receiving more than one-third of every dollar invested in a TDF.

The industry's top providers, Vanguard, Fidelity, BlackRock, T. Rowe Price, JPMorgan, American Funds, and State Street, hold a cumulative 87% share of all industry assets, or more than \$2.75 trillion, as of March 31, 2022.

We estimate that as of the end of March, the target-date fund industry experienced a 4.4% organic growth rate over the last 12 months.*

Sources: Vanguard, Morningstar, as of March 31, 2022. Industry estimates are based on mutual fund and CIT data reported in Morningstar. CIT data is self-reported and is updated in Morningstar as it is received. Public company data also used prior to 2020.



^{*} Organic growth measured as current period's net new flows divided by prior period's ending assets.



Market environment

Figure 10.1 Index returns ranked by performance

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2Q 2021	3Q 2021	4Q 2021	1Q 2022
EMB	CRSP	REIT	REIT	HYB	FTSE	IAGG	CRSP	CRSP	CRSP	COM	COM	REIT	COM
18.3	33.6	30.4	2.5	17.1	27.4	3.2	30.8	21.0	25.7	13.3	6.6	16.3	25.5
REIT	FTSE	CRSP	IAGG	CRSP	CRSP	CASH	REIT	FTSE	REIT	REIT	STPS	CRSP	CASH
17.8	15.6	12.6	1.3	12.7	21.2	1.9	25.8	11.2	43.1	12.0	1.3	9.2	0.0
FTSE	HYB	IAGG	EMB	COM	EMB	STPS	FTSE	AGG	COM	CRSP	REIT	FTSE	STPS
17.6	7.4	9.1	1.3	11.4	9.2	0.6	21.8	7.5	27.1	8.3	1.0	1.8	-0.3
CRSP	REIT	EMB	AGG	EMB	HYB	AGG	HYB	HYB	FTSE	FTSE	HYB	STPS	REIT
16.2	2.5	7.1	0.5	9.2	7.5	0.0	14.3	7.1	8.8	5.7	0.9	1.2	-4.1
HYB	IAGG	AGG	CRSP	REIT	REIT	HYB	EMB	EMB	STPS	EMB	AGG	HYB	HYB
15.8	1.3	6.0	0.4	8.6	5.1	-2.1	14.1	5.6	5.3	4.3	0.1	0.7	-4.8
IAGG	CASH	HYB	CASH	IAGG	AGG	EMB	AGG	STPS	HYB	HYB	CASH	EMB	IAGG
7.3	0.1	2.5	0.0	4.9	3.5	-3.9	8.7	5.1	5.3	2.7	0.0	0.1	-5.0
AGG	STPS	CASH	STPS	FTSE	IAGG	REIT	IAGG	IAGG	CASH	AGG	IAGG	CASH	FTSE
4.2	-1.6	0.0	0.0	4.7	2.6	–4.6	8.1	4.7	0.1	1.8	0.0	0.0	-5.3
STPS	AGG	STPS	FTSE	STPS	STPS	CRSP	COM	CASH	AGG	STPS	CRSP	AGG	CRSP
2.4	-2.0	-1.1	-4.3	2.8	0.9	-5.2	5.4	0.6	-1.5	1.7	-0.1	0.0	-5.4
CASH	EMB	FTSE	HYB	AGG	CASH	COM	STPS	COM	EMB	IAGG	EMB	IAGG	AGG
0.1	-6.3	-3.4	-4.5	2.6	0.8	-13.0	4.9	-3.5	-1.8	0.3	-0.7	–0.1	-5.9
COM	COM	COM	COM	CASH	COM	FTSE	CASH	REIT	IAGG	CASH	FTSE	COM	EMB
-1.1	-9.5	-17.0	-24.7	0.3	0.7	-14.6	2.3	–7.6	–2.1	0.0	-2.5	-1.6	-9.5

					_	e annual return	ized
Index return	ns		Three months	One year	Three years	Five years	Ten years
	CRSP	CRSP U.S. Total Market Index	-5.44	11.71	18.17	15.38	14.26
Target Retirement	FTSE	FTSE Global All Cap ex U.S. Index	-5.30	-0.72	8.21	7.08	6.00
Fund	AGG	Bloomberg U.S. Aggregate Bond Index	-5.93	-4.15	1.69	2.14	2.24
building blocks	IAGG	Bloomberg Global Agg ex U.S. Float Adj RIC Cap Index (Hedged)*	-5.04	-4.93	0.68	2.17	3.01
	STPS	Bloomberg U.S. 0–5 Year TIPS Index	-0.30	3.92	4.41	3.12	1.73
	CASH	3-Month T-Bill	0.03	0.06	0.76	1.09	0.60
	HYB	Bloomberg U.S. Corporate High Yield Index	-4.84	-0.66	4.58	4.69	5.75
Other indexes	EMB	Bloomberg USD Emerging Market Gov RIC Cap Index**	-9.54	-6.30	0.50	1.81	3.35
	REIT	MSCI U.S. REIT Index	-4.06	26.20	11.14	9.65	9.74
	COM	Bloomberg Commodity Index	25.45	49.09	15.34	7.83	-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 Barclays Live, and Morningstar, as of March 31, 2022.

* 10-year data shown is Since inception return. Benchmark inception date is January 4, 2013.

** 10-year data shown is for Bloomberg Barclays Emerging Markets Sovereign Index USD. Benchmark inception date is April 1, 2013.

Note: Beginning 3Q2021, the benchmark shown for the EMB category changed from Bloomberg Barclays Emerging Markets Sovereign Index USD to Bloomberg USD Emerging Market Gov RIC Cap Index.



Vanguard fund construction and performance

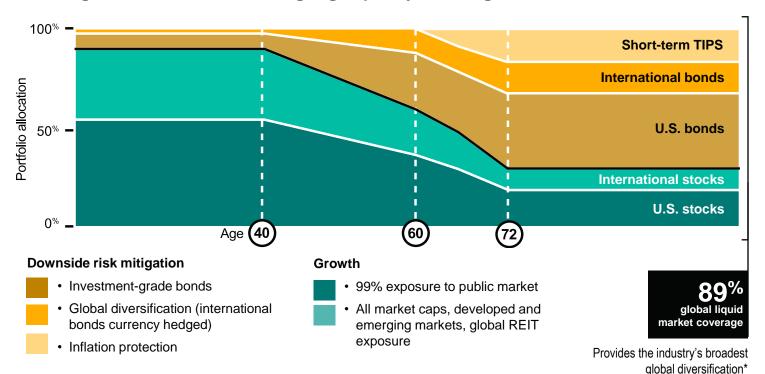
IN THIS SECTION:

Evolution of Vanguard's glide-path design Vanguard fund performance and attribution

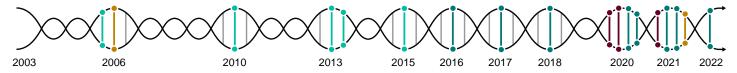


Purposeful design and evolution

Strategic asset allocation using high-quality building blocks



Meaningfully improving investor outcomes since inception



Enhanced asset allocation

- Added emerging markets stocks (2006)
- Added Canada and more international equity exposure (including small-caps) through Total International Stock Index replacing three regional funds (2010)
- Added international bonds (2013)
- Replaced broad TIPS fund with shortterm TIPS for better responsiveness to inflation and removed money market fund (2013)
- Increased international allocations for both stocks and bonds (2015)

Lowered fees, increased access

- Lowered expense ratios (2016, 2017, 2018, 2020, and 2021)
- Reduced minimum for Institutional Target Retirement Funds (2020)
- Reduced minimum for Target Retirement Trusts (2021)
- Merging Institutional Target Retirement Funds into Target Retirement Funds (2022)

Reduced implementation costs and tax drag

- Moved from quarterly to monthly glide path rolldown (2020)
- Widened rebalancing bands (2020)
- Across trust vintages, replaced underlying international fund with an international trust, minimizing foreign tax withholdings (2021)

Improved fund/trust lineup

- Launched five-year vintage increments (2006)
- Added optional trust with a 50/50 allocation landing point and added enhanced retirement income services (2021)

^{*} Broadest global diversification is determined by comparing the global liquid market coverage across target-date fund providers. 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, 2021.



Fund performance through March 31, 2022

Vanguard Target Retirement Fund and Trust performance

Average annualized return

Portfolio/Benchmark	3 months	1 year	3 years	5 years	10 years	Since inception	Inception date
Vanguard Target Retirement Income Vintage							
Fund	-4.77	0.15	5.75	5.30	4.95	5.26	10/27/2003
Trust II	-4.74	0.22	5.79	5.36	5.00	5.05	2/29/2008
Target Retirement Income Composite Index	-4.58	0.49	6.15	5.61	5.19	_	
Vanguard Target Retirement 2015 Vintage							
Fund	-4.79	0.39	6.20	5.95	6.20	6.07	10/27/2003
Trust II	-4.76	0.45	6.28	6.00	6.27	5.72	2/29/2008
Target Retirement 2015 Composite Index	-4.62	0.70	6.61	6.26	6.46	_	_
Vanguard Target Retirement 2020 Vintage							
Fund	-5.06	1.39	7.87	7.27	7.31	6.47	6/7/2006
Trust II	-5.08	1.45	7.91	7.33	7.37	6.39	2/29/2008
Target Retirement 2020 Composite Index	-4.87	1.80	8.34	7.63	7.60	_	
Vanguard Target Retirement 2025 Vintage							
Fund	-5.51	1.86	8.92	8.14	8.04	7.04	10/27/2003
Trust II	-5.47	2.01	9.03	8.23	8.12	6.81	2/29/2008
Target Retirement 2025 Composite Index	-5.21	2.41	9.50	8.56	8.37	_	
Vanguard Target Retirement 2030 Vintage							
Fund	-5.65	2.53	9.84	8.85	8.68	7.12	6/7/2006
Trust II	-5.63	2.66	9.93	8.93	8.76	7.14	2/29/2008
Target Retirement 2030 Composite Index	-5.31	3.10	10.41	9.28	9.01	_	_
Vanguard Target Retirement 2035 Vintage							
Fund	-5.66	3.29	10.77	9.57	9.31	7.84	10/27/2003
Trust II	-5.63	3.46	10.87	9.66	9.39	7.55	2/29/2008
Target Retirement 2035 Composite Index	-5.29	3.93	11.35	10.01	9.65	_	

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.

Sources: Vanguard and Morningstar, as of March 31, 2022.





Fund performance through March 31, 2022

Vanguard Target Retirement Fund and Trust performance (continued)

Average annualized return

				3	idiized ieta		
Portfolio/Benchmark	3 months	1 year	3 years	5 years	10 years	Since inception	Inception date
Vanguard Target Retirement 2040 Vintage							
Fund	-5.66	4.10	11.68	10.28	9.85	7.78	6/7/2006
Trust II	-5.65	4.24	11.78	10.36	9.93	7.95	2/29/2008
Target Retirement 2040 Composite Index	-5.27	4.76	12.27	10.72	10.21	_	_
Vanguard Target Retirement 2045 Vintage							
Fund	-5.67	4.88	12.61	10.89	10.19	8.49	10/27/2003
Trust II	-5.68	5.04	12.68	10.95	10.26	8.16	2/29/2008
Target Retirement 2045 Composite Index	-5.26	5.58	13.21	11.34	10.55	_	_
Vanguard Target Retirement 2050 Vintage							
Fund	-5.65	5.07	12.74	10.96	10.23	8.04	6/7/2006
Trust II	-5.67	5.19	12.82	11.04	10.29	8.20	2/29/2008
Target Retirement 2050 Composite Index	-5.25	5.78	13.36	11.43	10.60	_	_
Vanguard Target Retirement 2055 Vintage							
Fund	-5.69	5.05	12.71	10.95	10.21	10.84	8/18/2010
Trust II	-5.65	5.21	12.82	11.04	10.28	11.28	8/31/2010
Target Retirement 2055 Composite Index	-5.25	5.78	13.36	11.43	10.60	_	_
Vanguard Target Retirement 2060 Vintage							
Fund	-5.68	5.05	12.71	10.95	10.24	10.69	1/19/2012
Trust II	-5.63	5.22	12.85	11.06	10.33	10.35	3/1/2012
Target Retirement 2060 Composite Index	-5.25	5.78	13.36	11.43	10.60	_	_
Vanguard Target Retirement 2065 Vintage							
Fund	-5.63	5.12	12.69	_	_	10.56	7/12/2017
Trust II	-5.65	5.16	12.83	_	_	11.40	7/17/2017
Target Retirement 2065 Composite Index	-5.25	5.78	13.36	11.11	_	_	_

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.



Underlying fund performance contribution

Figure 15.1 12-month return contribution by underlying funds

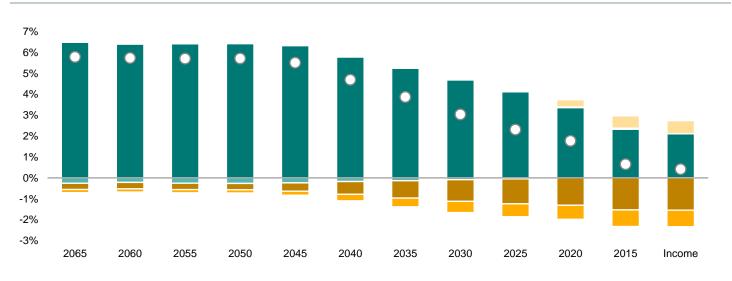
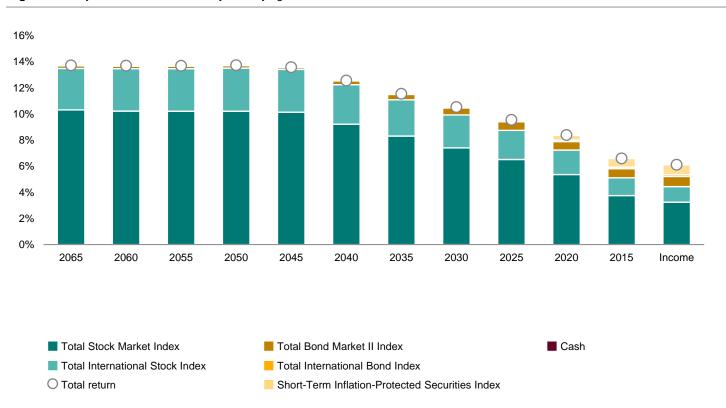


Figure 15.2 3-year return contribution by underlying funds



Past performance is not a guarantee of future results.

Gross excess return attribution

Figure 16.1 12-month return attribution

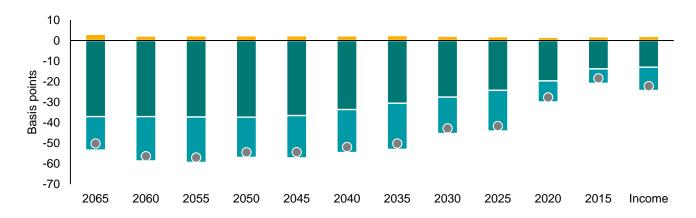
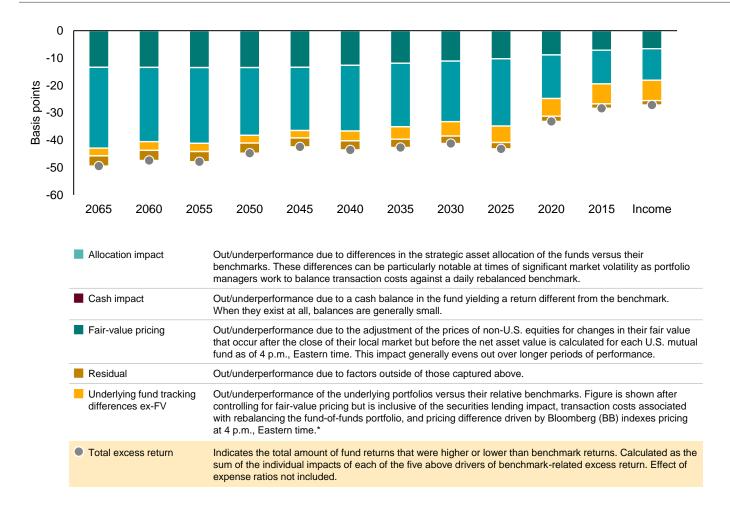


Figure 16.2 3-year return attribution



Past performance is not a guarantee of future results.

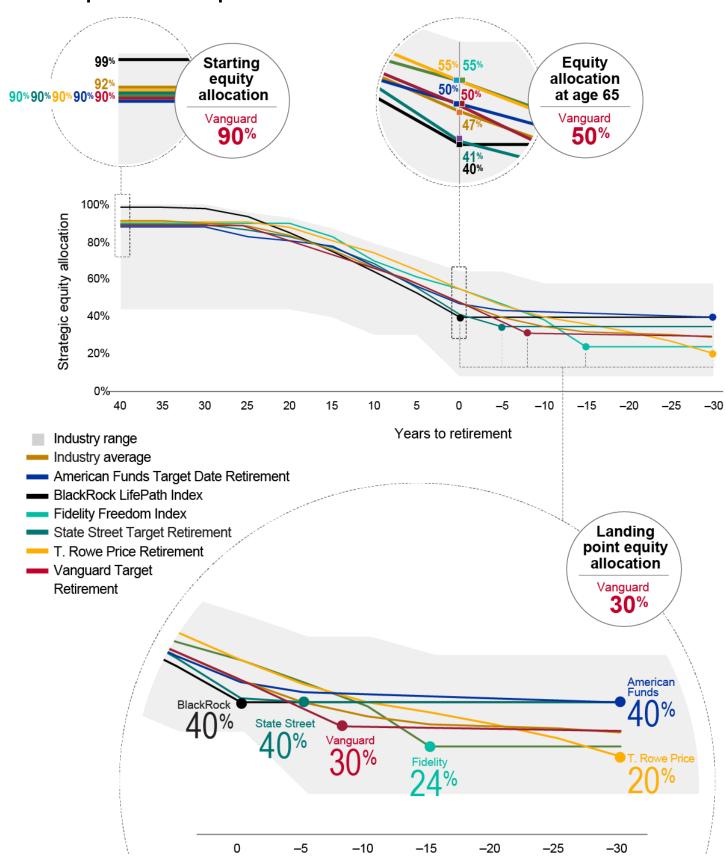
Sources: Vanguard and Morningstar, as of March 31, 2022.



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 3-year figures.



Glide-path comparison



Sources: Vanguard and competitor websites; data as of March 31, 2022; Vanguard calculation for industry average.



Competitor Fund Construction and Performance

IN THIS SECTION:

Beyond the glide path

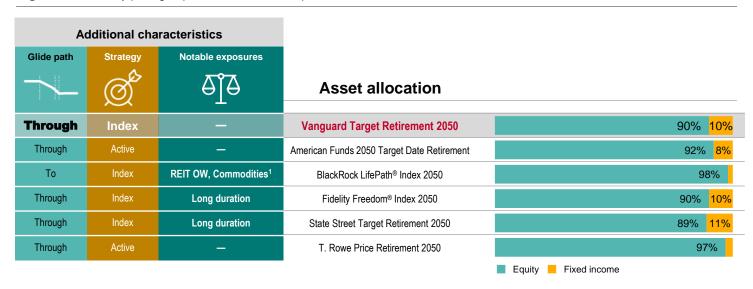
12-month return attribution

Long-term risk-adjusted performance results



2050 vintage: Beyond the glide path

Figure 19.1 Industry peer-group asset allocation comparison







Sources: Morningstar data, based on most recent holdings disclosure for each fund included in the calculation. As-of dates may vary depending on the timing and frequency of data made available to Morningstar. Data as of March 31, 2022.

¹ Commodity exposure is present in CIT product only. Mutual fund product does not include commodity exposure.

² Global market capitalization calculated using FTSE All Country Equity Index and Bloomberg Barclays Global Aggregate Bond Index.

Note: Due to spacing issues, data labels below 7% are not displayed. Due to rounding, may not total to 100%.

There may be other material differences between products that must be considered prior to investing.

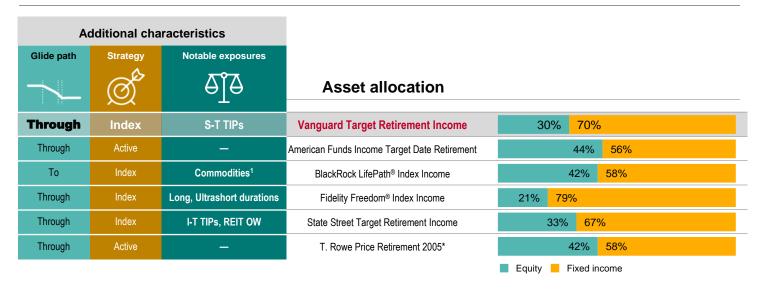


Fixed income

Income vintage: Beyond the glide path

Figure 20.1 Industry peer-group asset allocation comparison

Equity



65% 35% BlackRock LifePath® Index Income 94% 69	Lquity		Tixed income
75% 25% American Funds Income Target Date Retirement 86% 14% 65% 35% BlackRock LifePath® Index Income 94% 69 60% 40% Fidelity Freedom® Index Income 92% 8% 62% 38% State Street Target Retirement Income 96% 73% 27%	60% 40%	Vanguard Target Retirement Income	70% 30%
65% 35% BlackRock LifePath® Index Income 94% 69 60% 40% Fidelity Freedom® Index Income 92% 8% 62% 38% State Street Target Retirement Income 96% 67% 33% T. Rowe Price Retirement 2005* 73% 27%	60% 40%	Global market capitalization ²	39% 61%
60% 40% Fidelity Freedom® Index Income 92% 8% 62% 38% State Street Target Retirement Income 96% 67% 33% T. Rowe Price Retirement 2005* 73% 27%	75% 25%	American Funds Income Target Date Retirement	86% 14%
62% 38% State Street Target Retirement Income 96% 67% 33% T. Rowe Price Retirement 2005* 73% 27%	65% 35%	BlackRock LifePath® Index Income	94% <mark>6</mark> %
67% 33% T. Rowe Price Retirement 2005* 73% 27%	60% 40%	Fidelity Freedom® Index Income	92% <mark>8%</mark>
1. None i noc Notationida 2000	62% 38%	State Street Target Retirement Income	96%
■ U.S. ■ Non-U.S.	67% 33%	T. Rowe Price Retirement 2005*	73% 27%
	U.S. Non-U.S.		U.S. Non-U.S.

U.S./Non-U.S. allocation



Sources: Morningstar data, based on most recent holdings disclosure for each fund included in the calculation. As-of dates may vary depending on the timing and frequency of data made available to Morningstar. Data as of March 31, 2022.



¹ Commodity exposure is present in CIT product only. Mutual fund product does not include commodity exposure.

² Global market capitalization calculated using FTSE All Country Equity Index and Bloomberg Barclays Global Aggregate Bond Index.

^{*} No explicit income vintage in lineup. 2005 represents the most conservative asset allocation, as a proxy.

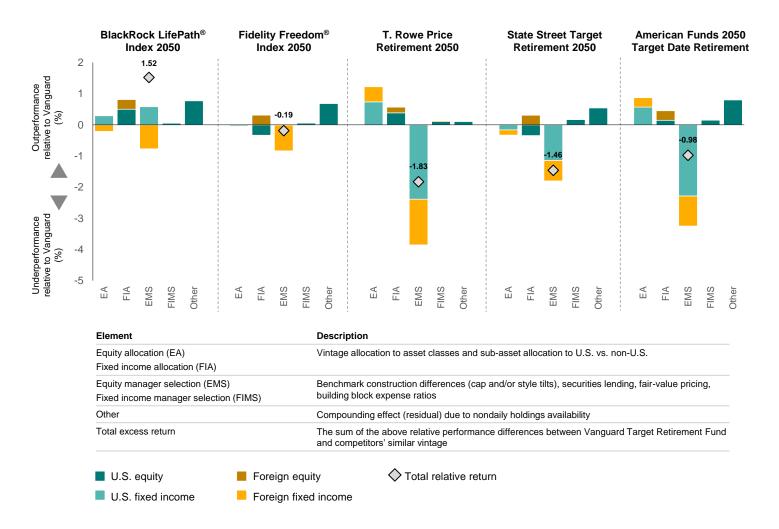
Note: Due to spacing issues, data labels below 7% are not displayed. Due to rounding, may not total to 100%.

There may be other material differences between products that must be considered prior to investing.



12-month return attribution

Figure 21.1 Relative to top five industry 2050 funds



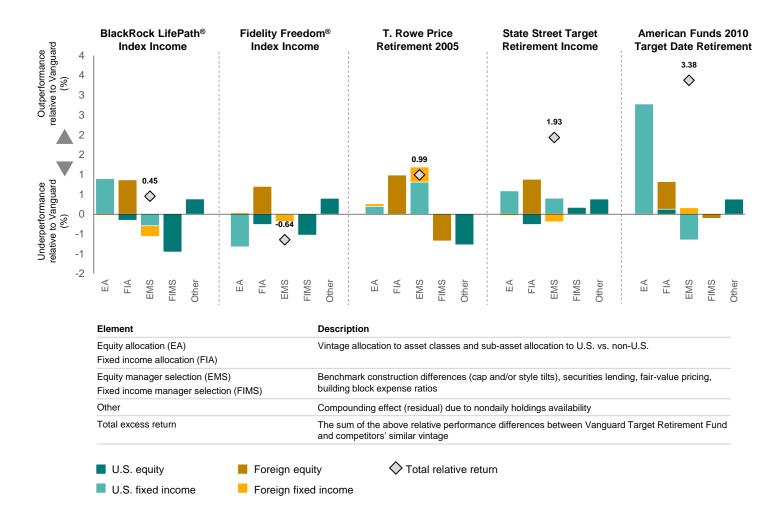
- BlackRock's outperformance relative to Vanguard was driven by a lower allocation to both domestic
 and international fixed income in favor of U.S. equity.
- Fidelity's underperformance was primarily driven by its higher allocation to emerging markets equities relative to Vanguard.
- T. Rowe Price's underperformance was driven by poor security selection within both the U.S. and international
 equity portions of the portfolio.
- State Street's underperformance was driven by country-specific tilts within the international equity portion of the portfolio and sector tilts in the U.S. equity portion of the portfolio.
- American Funds' underperformance was driven by poor security selection in the U.S. equity portion of the
 portfolio outweighing the positive impact from lower allocations to international equity and fixed income.

Past performance is not a guarantee of future results.



12-month return attribution (continued)

Figure 22.1 Relative to top five industry income (or equivalent) funds*



- BlackRock's outperformance over the period was driven by a higher allocation to equities relative to Vanguard.
- Fidelity's underperformance was due to a lower overall equity weight and a strategic tilt toward long-duration U.S. fixed income.
- T. Rowe Price's outperformance was driven by greater exposure to equity securities and strong security selection within the U.S. and international equity segments of the portfolio.
- State Street's outperformance was driven primarily by its higher allocation to U.S. equity and its underweight to international fixed income relative to Vanguard.
- American Funds' outperformance was driven solely by a significant overweight toward U.S. equity securities in relation to Vanguard 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 March 31, 2022.

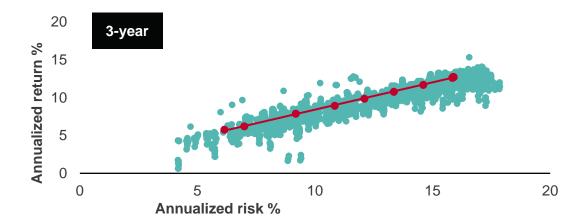


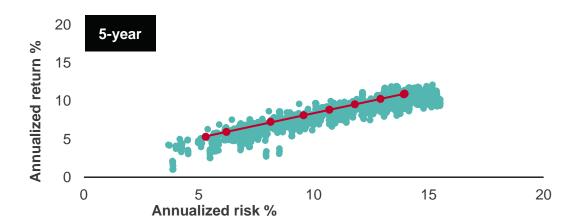
^{*} The 2005 fund is used as a proxy for T. Rowe Price, and the 2010 fund is used as a proxy for American Funds, as there is no terminal income fund currently

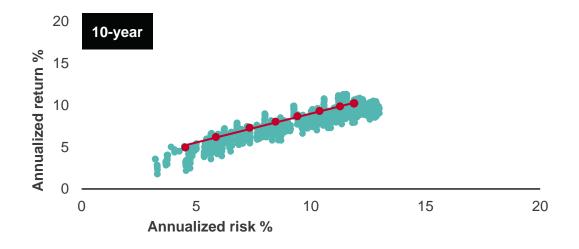


A history of consistently strong risk-adjusted performance

- TDF peers in Morningstar universe
- Vanguard Target Retirement Funds







Investors may be in TDFs for decades.

Consistent performance across all market environments is critical.

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 before 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, 2022. Vanguard Target Retirement Funds highlighted.



IN THIS SECTION:
Absolute performance results



Appendix: Absolute performance results

Average annualized return as of March 31, 2022

			, c. a.g.	·			,	
	3 months	Year- to-date	1 year	3 years	5 years	10 years	Since inception	Inception date
Fund							<u> </u>	
Vanguard Target Retirement Income Fund	-4.77	-4.77	0.15	5.75	5.30	4.95	5.26	10/27/2003
Target Retirement Income Composite Index	-4.58	-4.58	0.49	6.15	5.61	5.19	_	_
Lipper Target Consrv Funds Average	-4.66	-4.66	0.30	5.33	4.91	4.38	_	_
Fidelity Freedom Income	-4.09	-4.09	-0.76	4.54	4.31	4.02	4.71	10/17/1996
Fidelity Freedom Index Income Investor	-4.18	-4.18	-0.50	4.27	4.18	3.55	3.89	10/2/2009
T. Rowe Price Retirement 2005	-4.60	-4.60	1.14	7.39	6.44	6.01	5.91	2/27/2004
American Funds 2010 Trgt Date Retire R5	-3.30	-3.30	3.52	7.41	6.47	6.58	5.32	2/1/2007
BlackRock LifePath Index Retire K	-5.48	-5.48	0.60	7.13	6.38	5.80	5.75	5/31/2011
State Street Target Retirement K	-4.22	-4.22	2.08	6.89	6.06	_	5.13	9/30/2014
JPMorgan SmartRetirement® Income R5	-5.61	-5.61	-0.53	5.69	5.27	5.08	5.16	5/15/2006
JPMorgan SmartRetirement® Blend Income R5	-5.35	-5.35	-0.19	5.73	5.31	_	5.20	7/2/2012
TIAA-CREF Lifecycle Retire Income Instl	-4.96	-4.96	0.78	6.86	6.27	6.05	5.30	11/30/2007
Vanguard Target Retirement 2015 Fund	-4.79	-4.79	0.39	6.20	5.95	6.20	6.07	10/27/2003
Target Retirement 2015 Composite Index	-4.62	-4.62	0.70	6.61	6.26	6.46	_	_
Lipper Target 2015 Funds Average	-4.70	-4.70	1.54	7.05	6.27	5.66	_	_
Fidelity Freedom 2015	-5.21	-5.21	0.19	7.47	6.84	6.55	6.05	11/6/2003
Fidelity Freedom Index 2015 Investor	-5.06	-5.06	0.86	7.08	6.71	6.15	6.73	10/2/2009
T. Rowe Price Retirement 2015	-4.83	-4.83	1.66	8.50	7.50	7.28	6.69	2/27/2004
American Funds 2015 Trgt Date Retire R5	-3.57	-3.57	3.83	8.02	6.98	7.18	5.66	2/1/2007
JPMorgan SmartRetirement Blend 2015 R5	-5.36	-5.36	-0.07	3.96	4.24	_	4.61	12/30/2016
TIAA-CREF Lifecycle 2015 Institutional	-5.14	-5.14	0.93	7.39	6.82	6.83	5.68	1/17/2007
Vanguard Target Retirement 2020 Fund	-5.06	-5.06	1.39	7.87	7.27	7.31	6.47	6/7/2006
Target Retirement 2020 Composite Index	-4.87	-4.87	1.80	8.34	7.63	7.60	_	_
Lipper Target 2020 Funds Average	-5.13	-5.13	1.47	7.06	6.27	5.89	_	_
Fidelity Freedom 2020	-5.59	-5.59	0.66	8.55	7.63	7.17	6.89	10/17/1996
Fidelity Freedom Index 2020 Investor	-5.44	-5.44	1.46	8.12	7.52	6.77	7.43	10/2/2009
T. Rowe Price Retirement 2020	-5.04	-5.04	1.89	9.18	8.23	8.05	8.50	9/30/2002
American Funds 2020 Trgt Date Retire R5	-3.96	-3.96	3.76	8.43	7.52	7.84	5.97	2/1/2007
State Street Target Retirement 2020 K	-4.48	-4.48	2.88	8.29	7.52	_	6.51	9/30/2014
JPMorgan SmartRetirement 2020 R5	-5.63	-5.63	-0.54	6.00	5.83	6.35	5.86	5/15/2006
JPMorgan SmartRetirement Blend 2020 R5	-5.35	-5.35	-0.18	6.09	5.88	_	6.56	7/2/2012
TIAA-CREF Lifecycle 2020 Institutional	-5.33	-5.33	1.07	7.87	7.32	7.39	5.85	1/17/2007

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Appendix: Absolute performance results (continued)

Average annualized return as of March 31, 2022

	3 months	Year- to-date	1 year	3 years	5 years	10 years	Since inception	Inception date
Fund								
Vanguard Target Retirement 2025 Fund	-5.51	-5.51	1.86	8.92	8.14	8.04	7.04	10/27/2003
Target Retirement 2025 Composite Index	-5.21	-5.21	2.41	9.50	8.56	8.37	_	_
Lipper Target 2025 Funds Average	-5.30	-5.30	1.61	7.67	6.97	6.79	_	_
Fidelity Freedom 2025	-5.79	-5.79	0.99	9.36	8.24	7.88	6.81	11/6/2003
Fidelity Freedom Index 2025 Investor	-5.62	-5.62	1.91	8.89	8.15	7.52	8.16	10/2/2009
T. Rowe Price Retirement 2025	-5.48	-5.48	2.16	10.14	9.06	8.82	7.56	2/27/2004
American Funds 2025 Trgt Date Retire R5	-4.75	-4.75	3.59	9.58	8.57	8.94	6.68	2/1/2007
JPMorgan SmartRetirement 2025 R5	-6.20	-6.20	0.36	7.48	6.98	7.37	6.03	7/31/2007
JPMorgan SmartRetirement® Blend 2025 R5	-5.95	-5.95	0.67	7.52	7.03	_	7.60	7/2/2012
TIAA-CREF Lifecycle 2025 Institutional	-5.64	-5.64	1.46	8.80	8.06	8.08	6.11	1/17/2007
BlackRock Lifepath Index 2025 K	-5.47	-5.47	1.59	8.23	7.59	7.21	6.88	5/31/2011
State Street Target Retirement 2025 K	-5.07	-5.07	3.29	10.00	8.95	_	7.66	9/30/2014
Vanguard Target Retirement 2030 Fund	-5.65	-5.65	2.53	9.84	8.85	8.68	7.12	6/7/2006
Target Retirement 2030 Composite Index	-5.31	-5.31	3.10	10.41	9.28	9.01	_	_
Lipper Target 2030 Funds Average	-5.58	-5.58	2.44	8.98	8.00	7.55	_	_
Fidelity Freedom 2030	-6.00	-6.00	1.41	10.38	9.19	8.65	7.25	10/17/1996
Fidelity Freedom Index 2030 Investor	-5.70	-5.70	2.47	9.87	9.11	8.32	8.87	10/2/2009
T. Rowe Price Retirement 2030	-5.97	-5.97	2.45	11.07	9.85	9.51	9.44	9/30/2002
American Funds 2030 Trgt Date Retire R5	-5.46	-5.46	3.87	10.64	9.65	9.87	7.34	2/1/2007
JPMorgan SmartRetirement 2030 R5	-6.47	-6.47	1.31	8.65	8.03	8.19	6.86	5/15/2006
JPMorgan SmartRetirement Blend 2030 R5	-6.07	-6.07	1.71	8.80	8.03	_	8.51	7/2/2012
TIAA-CREF Lifecycle 2030 Institutional	-5.88	-5.88	1.96	9.71	8.84	8.77	6.35	1/17/2007
BlackRock Lifepath Index 2030 K	-5.39	-5.39	2.93	9.55	8.66	8.03	7.60	5/31/2011
State Street Target Retirement 2030 K	-5.71	-5.71	3.05	11.03	9.76	_	8.30	9/30/2014
Vanguard Target Retirement 2035 Fund	-5.66	-5.66	3.29	10.77	9.57	9.31	7.84	10/27/2003
Target Retirement 2035 Composite Index	-5.29	-5.29	3.93	11.35	10.01	9.65	_	_
Lipper Target 2035 Funds Average	-5.91	-5.91	3.26	10.45	9.19	8.54	_	_
Fidelity Freedom 2035	-6.20	-6.20	2.38	12.12	10.41	9.59	7.62	11/6/2003
Fidelity Freedom Index 2035 Investor	-5.86	-5.86	3.73	11.50	10.38	9.30	9.74	10/2/2009
T. Rowe Price Retirement 2035	-6.39	-6.39	2.69	11.90	10.50	10.05	8.20	2/27/2004
American Funds 2035 Trgt Date Retire R5	-6.24	-6.24	4.49	12.32	11.08	10.73	7.87	2/1/2007
JPMorgan SmartRetirement 2035 R5	-6.22	-6.22	2.80	10.67	9.26	9.06	6.98	7/31/2007
JPMorgan SmartRetirement Blend 2035 R5	-6.06	-6.06	3.14	10.10	8.99	_	9.32	7/2/2012
TIAA-CREF Lifecycle 2035 Institutional	-6.17	-6.17	2.35	10.61	9.57	9.39	6.70	1/17/2007
BlackRock Lifepath Index 2035 K	-5.46	-5.46	4.16	10.80	9.66	8.78	8.26	5/31/2011
State Street Target Retirement 2035 K	-6.03	-6.03	3.09	11.60	10.25	_	8.71	9/30/2014

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Data from Vanguard and Morningstar.



Appendix: Absolute performance results (continued)

Average annualized return as of March 31, 2022

			•					
	3 months	Year- to-date	1 year	3 years	5 years	10 years	Since inception	Inception date
Fund	0		. , ,	o year.e	o youre	,		
Vanguard Target Retirement 2040 Fund	-5.66	-5.66	4.10	11.68	10.28	9.85	7.78	6/7/2006
Target Retirement 2040 Composite Index	-5.27	-5.27	4.76	12.27	10.72	10.21	_	_
Lipper Target 2040 Funds Average	-6.20	-6.20	3.76	11.21	9.69	8.80	_	_
Fidelity Freedom 2040	-6.32	-6.32	3.14	13.18	11.07	9.95	5.30	9/6/2000
Fidelity Freedom Index 2040 Investor	-5.83	-5.83	4.90	12.71	11.10	9.70	10.08	10/2/2009
T. Rowe Price Retirement 2040	-6.68	-6.68	2.92	12.63	11.09	10.48	9.91	9/30/2002
American Funds 2040 Trgt Date Retire R5	-6.83	-6.83	4.65	13.02	11.67	11.10	8.11	2/1/2007
JPMorgan SmartRetirement 2040 R5	-6.29	-6.29	3.52	11.67	10.01	9.58	7.71	5/15/2006
JPMorgan SmartRetirement Blend 2040 R5	-6.08	-6.08	4.00	11.02	9.71	_	9.88	7/2/2012
TIAA-CREF Lifecycle 2040 Institutional	-6.40	-6.40	2.97	11.56	10.29	9.93	7.09	1/17/2007
BlackRock Lifepath Index 2040 K	-5.44	-5.44	5.28	11.88	10.55	9.48	8.85	5/31/2011
State Street Target Retirement 2040 K	-6.12	-6.12	3.42	12.19	10.69	_	9.03	9/30/2014
Vanguard Target Retirement 2045 Fund	-5.67	-5.67	4.88	12.61	10.89	10.19	8.49	10/27/2003
Target Retirement 2045 Composite Index	-5.26	-5.26	5.58	13.21	11.34	10.55	_	_
Lipper Target 2045 Funds Average	-6.19	-6.19	4.29	11.93	10.32	9.37	_	_
Fidelity Freedom 2045	-6.31	-6.31	3.19	13.22	11.06	10.00	7.21	6/1/2006
Fidelity Freedom Index 2045 Investor	-5.86	-5.86	4.88	12.69	11.10	9.75	10.13	10/2/2009
T. Rowe Price Retirement 2045	-6.78	-6.78	3.17	13.13	11.43	10.67	8.68	5/31/2005
American Funds 2045 Trgt Date Retire R5	-7.14	-7.14	4.49	13.21	11.84	11.23	8.19	2/1/2007
JPMorgan SmartRetirement 2045 R5	-6.28	-6.28	4.43	12.49	10.52	9.86	7.59	7/31/2007
JPMorgan SmartRetirement Blend 2045 R5	-6.13	-6.13	4.82	11.75	10.15	_	10.10	7/2/2012
TIAA-CREF Lifecycle 2045 Institutional	-6.49	-6.49	3.56	12.47	10.91	10.29	6.97	11/30/2007
BlackRock Lifepath Index 2045 K	-5.42	-5.42	6.12	12.78	11.25	10.02	9.30	5/31/2011
State Street Target Retirement 2045 K	-6.14	-6.14	3.57	12.64	11.07	_	9.32	9/30/2014
Vanguard Target Retirement 2050 Fund	-5.65	-5.65	5.07	12.74	10.96	10.23	8.04	6/7/2006
Target Retirement 2050 Composite Index	-5.25	-5.25	5.78	13.36	11.43	10.60	_	_
Lipper Target 2050 Funds Average	-6.27	-6.27	4.41	12.08	10.35	9.37	_	_
Fidelity Freedom 2050	-6.32	-6.32	3.20	13.21	11.08	10.02	7.09	6/1/2006
Fidelity Freedom Index 2050 Investor	-5.85	-5.85	4.89	12.71	11.11	9.76	10.17	10/2/2009
T. Rowe Price Retirement 2050	-6.82	-6.82	3.25	13.17	11.46	10.68	7.90	12/29/2006
American Funds 2050 Trgt Date Retire R5	-7.51	-7.51	4.10	13.21	11.89	11.26	8.21	2/1/2007
JPMorgan SmartRetirement 2050 R5	-6.31	-6.31	4.35	12.47	10.51	9.84	7.60	7/31/2007
JPMorgan SmartRetirement Blend 2050 R5	-6.08	-6.08	4.87	11.84	10.23	_	10.14	7/2/2012
TIAA-CREF Lifecycle 2050 Institutional	-6.60	-6.60	3.71	12.69	11.05	10.38	7.02	11/30/2007
BlackRock Lifepath Index 2050 K	-5.46	-5.46	6.60	13.25	11.56	10.33	9.55	5/31/2011
State Street Target Retirement 2050 K	-6.28	-6.28	3.62	12.96	11.23		9.39	9/30/2014

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Data from Vanguard and Morningstar.

Appendix: Absolute performance results (continued)

Average annualized return as of March 31, 2022

	3 months	Year- to-date	1 year	3 years	5 years	10 years	Since inception	Inception date
Fund								
Vanguard Target Retirement 2055 Fund	-5.69	-5.69	5.05	12.71	10.95	10.21	10.84	8/18/2010
Target Retirement 2055 Composite Index	-5.25	-5.25	5.78	13.36	11.43	10.60	_	_
Lipper Target 2055+ Funds Average	-6.30	-6.30	4.48	12.28	10.58	9.62	_	_
Fidelity Freedom 2055	-6.33	-6.33	3.21	13.21	11.07	10.09	9.31	6/1/2011
Fidelity Freedom Index 2055 Investor	-5.83	-5.83	4.88	12.70	11.10	9.84	9.22	6/1/2011
T. Rowe Price Retirement 2055	-6.79	-6.79	3.21	13.12	11.41	10.66	7.88	12/29/2006
American Funds 2055 Trgt Date Retire R5	-7.87	-7.87	3.67	13.06	11.80	11.21	11.17	2/1/2010
JPMorgan SmartRetirement 2055 R5	-6.33	-6.33	4.32	12.48	10.51	9.90	10.37	1/31/2012
JPMorgan SmartRetirement Blend 2055 R5	-6.06	-6.06	4.86	11.81	10.18	_	10.08	7/2/2012
TIAA-CREF Lifecycle 2055 Institutional	-6.58	-6.58	3.77	12.81	11.15	10.45	9.53	4/29/2011
BlackRock Lifepath Index 2055 K	-5.50	-5.50	6.62	13.29	11.60	10.51	9.67	5/31/2011
State Street Target Retirement 2055 K	-6.23	-6.23	3.66	12.91	11.23	_	9.39	9/30/2014
Vanguard Target Retirement 2060 Fund	-5.68	-5.68	5.05	12.71	10.95	10.24	10.69	1/19/2012
Target Retirement 2060 Composite Index	-5.25	-5.25	5.78	13.36	11.43	10.60	_	_
Lipper Target 2055+ Funds Average	-6.30	-6.30	4.48	12.28	10.58	9.62	_	_
Fidelity Freedom 2060	-6.33	-6.33	3.21	13.20	11.07	_	9.53	8/5/2014
Fidelity Freedom Index 2060 Investor	-5.84	-5.84	4.87	12.69	11.11	_	9.33	8/5/2014
T. Rowe Price Retirement 2060	-6.83	-6.83	3.21	13.13	11.43	_	9.24	6/23/2014
American Funds 2060 Trgt Date Retire R5	-7.89	-7.89	3.65	13.03	11.77	_	10.24	3/27/2015
JPMorgan SmartRetirement 2060 R5	-6.29	-6.29	4.34	12.43	10.49	_	10.90	8/31/2016
JPMorgan SmartRetirement Blend 2060 R5	-6.08	-6.08	4.88	11.76	10.25	_	10.52	8/31/2016
TIAA-CREF Lifecycle 2060 Institutional	-6.56	-6.56	3.95	12.97	11.26	_	9.71	9/26/2014
BlackRock Lifepath Index 2060 K	-5.49	-5.49	6.58	13.27	11.59	_	13.16	2/29/2016
State Street Target Retirement 2060 K	-6.27	-6.27	3.58	12.96	11.21	_	9.37	9/30/2014
Vanguard Target Retirement 2065 Fund	-5.63	-5.63	5.12	12.69	_	_	10.56	7/12/2017
Target Retirement 2065 Composite Index	-5.25	-5.25	5.78	13.36	11.11	_	_	_
Lipper Target 2055+ Funds Average	-6.30	-6.30	4.48	12.28	10.58	9.62	_	
Fidelity Freedom 2065	-6.28	-6.28	3.25	_	_	_	13.12	6/28/2019
Fidelity Freedom Index 2065 Investor	-5.85	-5.85	4.87	_	_	_	12.38	6/28/2019
T. Rowe Price Retirement 2065	-6.70	-6.70	3.65	_	_	_	15.27	10/14/2020
American Funds 2065 Trgt Date Retire R5	-7.89	-7.89	3.65	_	_	_	25.86	3/27/2020
TIAA-CREF Lifecycle 2065 Institutional	-6.40	-6.40	4.25	_	_	_	16.57	9/30/2020
BlackRock Lifepath Index 2065 K	-5.46	-5.46	6.68	_	_	_	13.97	10/30/2019
State Street Target Retirement 2065 K	-6.24	-6.24	3.70	_	_	_	24.10	3/30/2020

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Data from Vanguard and Morningstar.



Appendix: Standardized returns

Average annualized return as of March 31, 2022

	3 months	Year- to-date	1 vear	3 vears	5 voors	10 years	Since inception	Inception date
Fund	3 monus	to-uate	ı yeai	3 years	J years	10 years	псериоп	uate
Vanguard Total Bond Market Index Fund Institutional Shares	-5.98	-5.98	-4.07	1.71	2.14	2.21	4.66	09/18/1995
Vanguard Total International Bond Index Fund Institutional Shares	-4.98	-4.98	-4.87	0.57	2.04	_	2.79	05/31/2013
Vanguard Total Stock Market Index Fund Institutional Shares	-5.46	-5.46	11.68	18.16	15.37	14.25	8.93	07/07/1997
Vanguard Total International Stock Index Fund Institutional Shares	-6.07	-6.07	-1.81	7.79	6.81	5.83	5.36	11/29/2010

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.

Notes

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The Vanguard Capital Markets Model® is a proprietary financial simulation tool developed and maintained by Vanguard's primary investment research and advice teams. The model forecasts distributions of future returns for a wide array of broad asset classes. Those asset classes include U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. money markets, commodities, and certain alternative investment strategies. The theoretical and empirical foundation for the Vanguard Capital Markets Model is that the returns of various asset classes reflect the compensation investors require for bearing different types of systematic risk (beta). At the core of the model are estimates of the dynamic statistical relationship between risk factors and asset returns, obtained from statistical analysis based on available monthly financial and economic data from as early as 1960. Using a system of estimated equations, the model then applies a Monte Carlo simulation method to project the estimated interrelationships among risk factors and asset classes as well as uncertainty and randomness over time. The model generates a large set of simulated outcomes for each asset class over several time horizons. Forecasts are obtained by computing measures of central tendency in these simulations. Results produced by the tool will vary with each use and over time.

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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-market 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 Barclays U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg Barclays U.S. Aggregate Float Adjusted Index through June 2, 2013, and the Bloomberg Barclays U.S. Treasury Inflation-Protected Securities Index through June 2, 2013, and the Bloomberg Barclays 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 Barclays 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 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-market 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 Barclays U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg Barclays U.S. Aggregate Float Adjusted Index thereafter, as well as the Bloomberg Barclays U.S. Treasury Inflation-Protected Securities Index through June 2, 2013, and the Bloomberg Barclays U.S. Treasury Inflation-Protected Securities (TIPS) 0-5 Year Index thereafter; for international bonds, the Bloomberg Barclays 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-market 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 Barclays U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg Barclays U.S. Aggregate Eloat Adjusted Index thereafter; for international bonds, the Bloomberg Barclays 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-market 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 Barclays U.S. Aggregate Bond Index through December 31, 2009, and the Bloomberg Barclays U.S. Aggregate Float Adjusted Index thereafter; for international bonds, the Bloomberg Barclays 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-market 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 Barclays U.S. Aggregate Float Adjusted Index; for international bonds, the Bloomberg Barclays 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 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 market 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 Barclays U.S. Aggregate Float Adjusted Index; for international bonds, the Bloomberg Barclays 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.

<u>Target 2065 Composite Index</u>: 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 Barclays U.S. Aggregate Float Adjusted Index for U.S. bonds, the Bloomberg Barclays 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.

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