

# **Wisconsin Deferred Compensation Program**

June 9, 2022

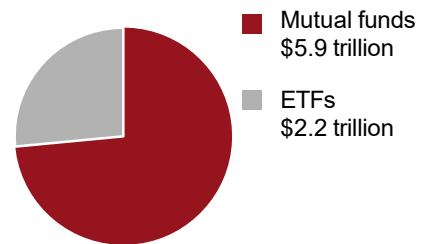
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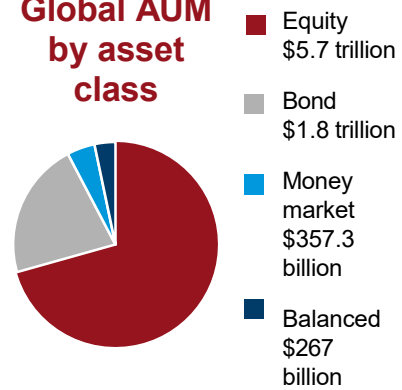
# Assets and cash flow



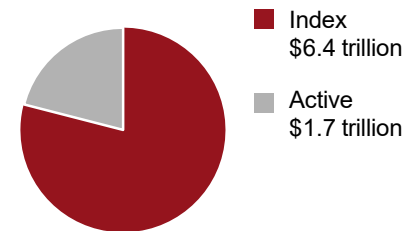
Global AUM by product type



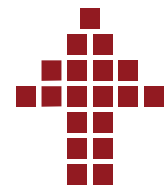
Global AUM by asset class



Global AUM by management style



Note: As of 03/31/2022.

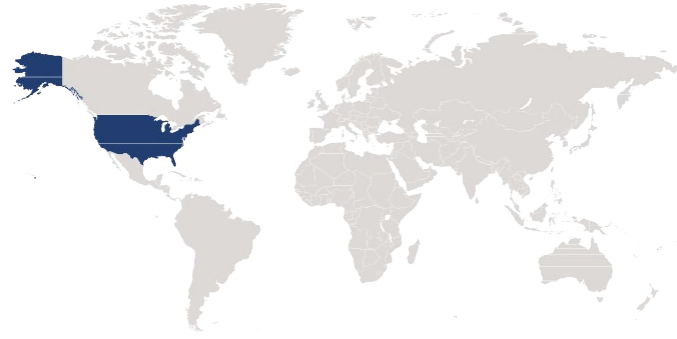


**\$299.4 billion** global net cash flow in 2021

Note: As of 03/31/2022.

# Funds and expenses

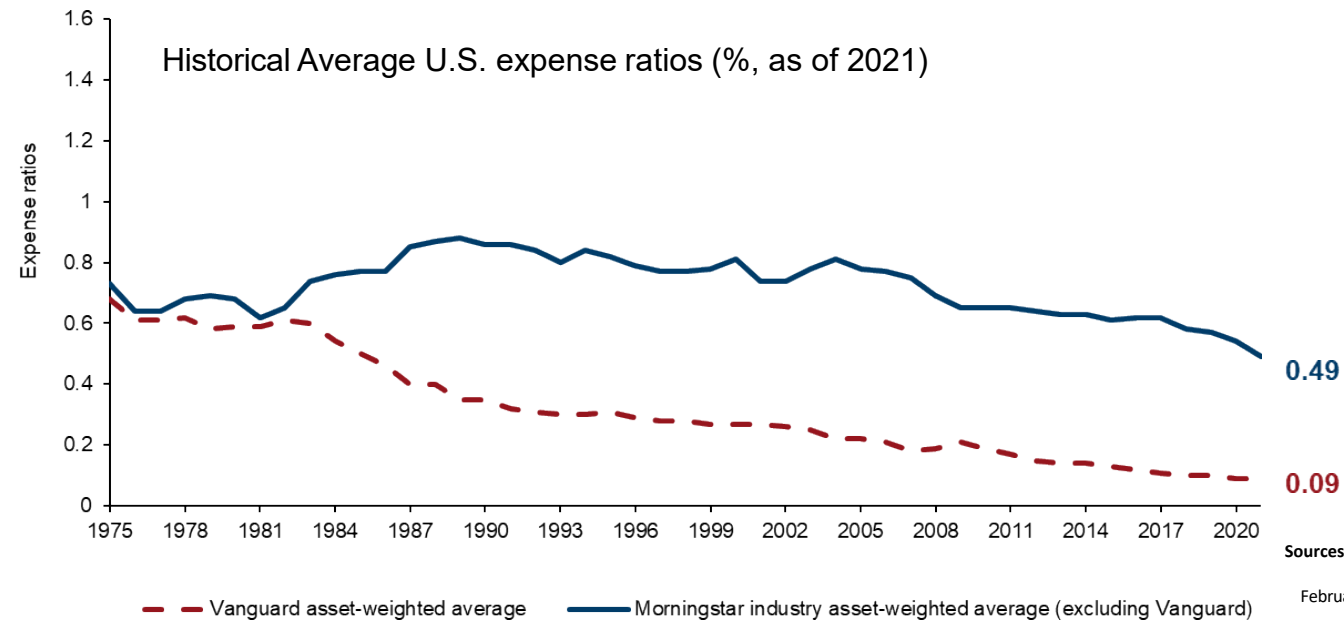
410 funds worldwide



203 funds in the United States



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



# Crew, clients, and locations

● Current Vanguard locations

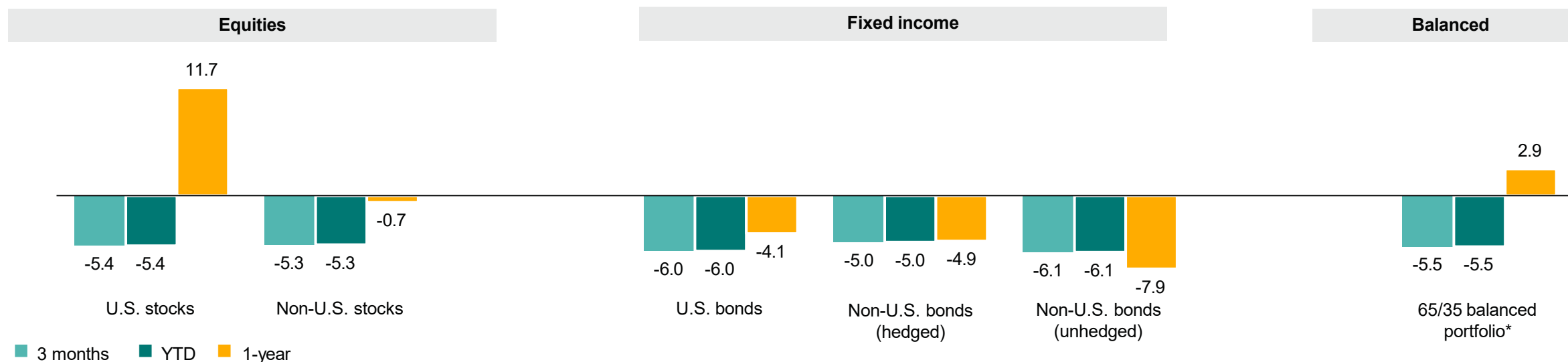


Source: Vanguard.  
Note: Data as of 03/31/2022.  
Crew headcount updated annually.

# 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 returns

Fund/Index/Average	Expense ratio* (%)	Three months (%)	Year-to-date (%)	One year (%)	Annualized (as of 03/31/2022)			
					Three years (%)	Five years (%)	Ten years (%)	Since Inception (%)
<b>Domestic equity funds</b>								
<b>Vanguard Institutional 500 Index Trust (08/17/2018)</b>	<b>0.014</b>	<b>-4.61</b>	<b>-4.61</b>	<b>15.62</b>	<b>18.92</b>	<b>—</b>	<b>—</b>	<b>15.66</b>
<i>S&amp;P 500 Index</i>		<i>-4.60</i>	<i>-4.60</i>	<i>15.65</i>	<i>18.92</i>	<i>15.99</i>	<i>14.64</i>	<i>—</i>
<i>Large-Cap Core Funds Average</i>		<i>-5.64</i>	<i>-5.64</i>	<i>12.02</i>	<i>16.68</i>	<i>14.06</i>	<i>12.77</i>	<i>—</i>
<b>Balanced funds</b>								
<b>Vanguard Target Retirement 2055 Trust Plus (11/30/2011)</b>	<b>0.055</b>	<b>-5.66</b>	<b>-5.66</b>	<b>5.22</b>	<b>12.84</b>	<b>11.06</b>	<b>10.32</b>	<b>11.12</b>
<i>Target Retirement 2055 Composite Ix<sup>1</sup></i>		<i>-5.25</i>	<i>-5.25</i>	<i>5.78</i>	<i>13.36</i>	<i>11.43</i>	<i>10.60</i>	<i>—</i>
<i>Spl Mixed-Asset Target 2055+Fds Avg<sup>2</sup></i>		<i>-6.30</i>	<i>-6.30</i>	<i>4.48</i>	<i>12.28</i>	<i>10.58</i>	<i>9.62</i>	<i>—</i>
<b>Vanguard Target Retirement 2045 Trust Plus (08/15/2011)</b>	<b>0.055</b>	<b>-5.67</b>	<b>-5.67</b>	<b>5.06</b>	<b>12.70</b>	<b>10.98</b>	<b>10.30</b>	<b>10.86</b>
<i>Target Retirement 2045 Composite Ix<sup>1</sup></i>		<i>-5.26</i>	<i>-5.26</i>	<i>5.58</i>	<i>13.21</i>	<i>11.34</i>	<i>10.55</i>	<i>—</i>
<i>Mixed-Asset Target 2045 Funds Avg</i>		<i>-6.19</i>	<i>-6.19</i>	<i>4.29</i>	<i>11.93</i>	<i>10.32</i>	<i>9.37</i>	<i>—</i>

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](http://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

Fund/Index/Average	Expense ratio* (%)	Three months (%)	Year-to-date (%)	One year (%)	Annualized (as of 03/31/2022)			
					Three years (%)	Five years (%)	Ten years (%)	Since Inception (%)
<b>Balanced funds (continued)</b>								
<b>Vanguard Target Retirement 2035 Trust Plus (08/15/2011)</b>	<b>0.055</b>	<b>-5.63</b>	<b>-5.63</b>	<b>3.48</b>	<b>10.89</b>	<b>9.69</b>	<b>9.43</b>	<b>10.01</b>
<i>Target Retirement 2035 Composite Ix<sup>1</sup></i>		-5.29	-5.29	3.93	11.35	10.01	9.65	—
<i>Mixed-Asset Target 2035 Funds Avg</i>		-5.91	-5.91	3.26	10.45	9.19	8.54	—
<b>Vanguard Target Retirement 2025 Trust Plus (08/15/2011)</b>	<b>0.055</b>	<b>-5.49</b>	<b>-5.49</b>	<b>2.01</b>	<b>9.05</b>	<b>8.25</b>	<b>8.15</b>	<b>8.66</b>
<i>Target Retirement 2025 Composite Ix<sup>1</sup></i>		-5.21	-5.21	2.41	9.50	8.56	8.37	—
<i>Mixed-Asset Target 2025 Funds Avg</i>		-5.30	-5.30	1.61	7.67	6.97	6.79	—
<b>Vanguard Target Retirement 2015 Trust Plus (08/15/2011)</b>	<b>0.055</b>	<b>-4.77</b>	<b>-4.77</b>	<b>0.45</b>	<b>6.30</b>	<b>6.02</b>	<b>6.30</b>	<b>6.75</b>
<i>Target Retirement 2015 Composite Ix<sup>1</sup></i>		-4.62	-4.62	0.70	6.61	6.26	6.46	—
<i>Mixed-Asset Target 2015 Funds Avg</i>		-4.70	-4.70	1.54	7.05	6.27	5.66	—
<b>Vanguard Target Retirement Income Trust Plus (08/15/2011)</b>	<b>0.055</b>	<b>-4.74</b>	<b>-4.74</b>	<b>0.21</b>	<b>5.81</b>	<b>5.37</b>	<b>5.04</b>	<b>5.28</b>
<i>Target Retirement Income Compos. Ix<sup>1</sup></i>		-4.58	-4.58	0.49	6.15	5.61	5.19	—
<i>Spl Mixed-Asset Target Today FdsAvg<sup>3</sup></i>		-4.66	-4.66	0.30	5.33	4.91	4.38	—
<b>Vanguard Wellington™ Fund Admiral™ Shares (05/14/2001)</b>	<b>0.16</b>	<b>-6.37</b>	<b>-6.37</b>	<b>7.70</b>	<b>11.68</b>	<b>10.18</b>	<b>9.92</b>	<b>8.15</b>
<i>Wellington Composite Index<sup>4</sup></i>		-5.41	-5.41	8.45	13.20	11.46	10.65	—
<i>Mixed-Asset Target Growth Funds Avg</i>		-5.22	-5.22	4.51	10.49	8.87	8.18	—
<b>Bond funds</b>								
<b>Vanguard Long-Term Investment-Grade Fund Admiral™ Shares (02/12/2001)</b>	<b>0.12</b>	<b>-10.68</b>	<b>-10.68</b>	<b>-3.52</b>	<b>4.29</b>	<b>4.80</b>	<b>5.32</b>	<b>6.61</b>
<i>Bloomberg US LongCredit A/Better Ix</i>		-11.12	-11.12	-4.30	3.88	4.39	4.84	—
<i>Corporate A-Rated Debt Funds Avg</i>		-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.

\*\* 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.

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# Investment performance returns

Fund/Index/Average	Expense ratio* (%)	Three months (%)	Year-to-date (%)	One year (%)	Annualized (as of 03/31/2022)			
					Three years (%)	Five years (%)	Ten years (%)	Since Inception (%)
<i>Stable net asset value funds</i>								
<b>Vanguard Treasury Money Market Fund (12/14/1992) <sup>5</sup></b>	<b>0.09</b>	<b>0.02</b>	<b>0.02</b>	<b>0.03</b>	<b>0.68</b>	<b>1.02</b>	<b>0.55</b>	<b>2.29</b>
<i>iMoneyNet MFR Treasury Funds Avg</i>		<i>0.00</i>	<i>0.00</i>	<i>0.01</i>	<i>0.48</i>	<i>0.71</i>	<i>0.36</i>	—
<i>FTSE 3-Month US T-Bill Index</i>		<i>0.03</i>	<i>0.03</i>	<i>0.06</i>	<i>0.76</i>	<i>1.09</i>	<i>0.60</i>	—
<i>7-day SEC yield <sup>6</sup> = 0.20%</i>								

Source: Data derived from Morningstar.

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# Our key TDF components that power participant success

## Aligned interests

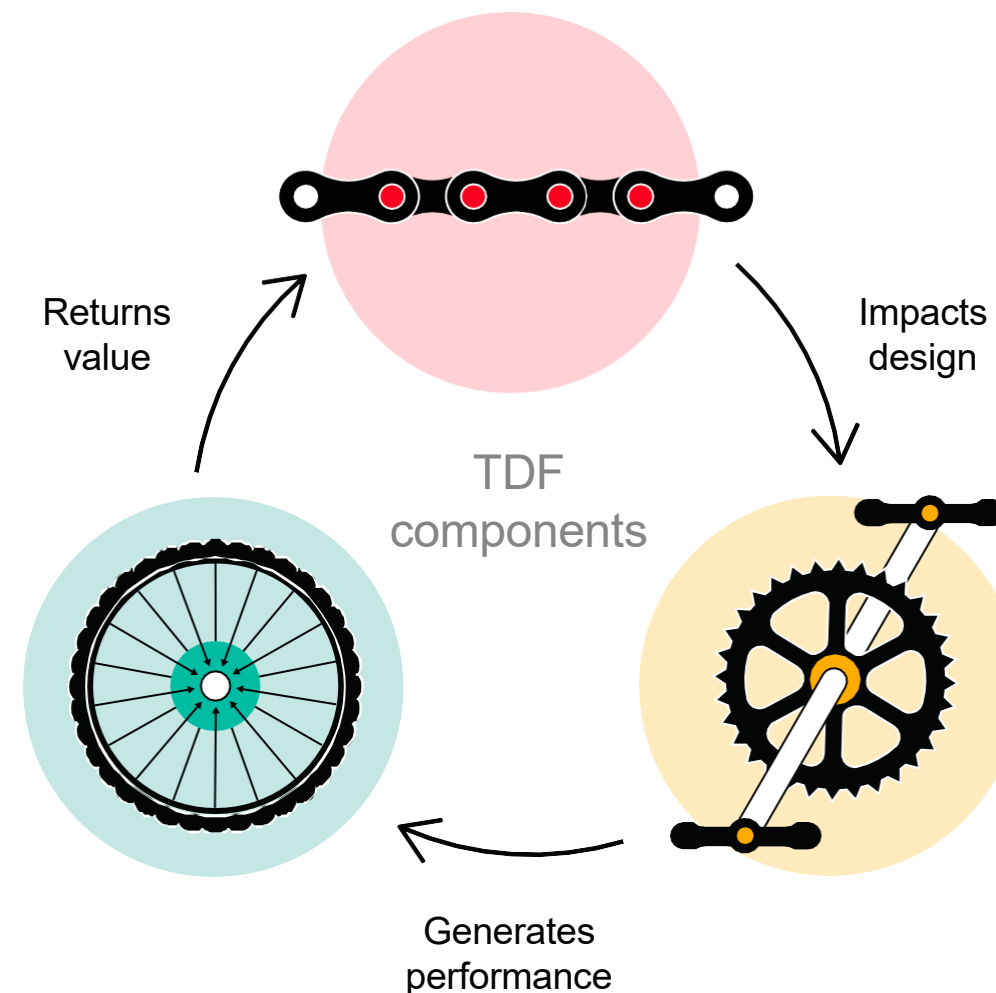
Because Vanguard is the only investor-owned firm in our industry, we're focused on your best interests, seeing your participants' hopes, goals, and dreams as our own.\*

## 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.



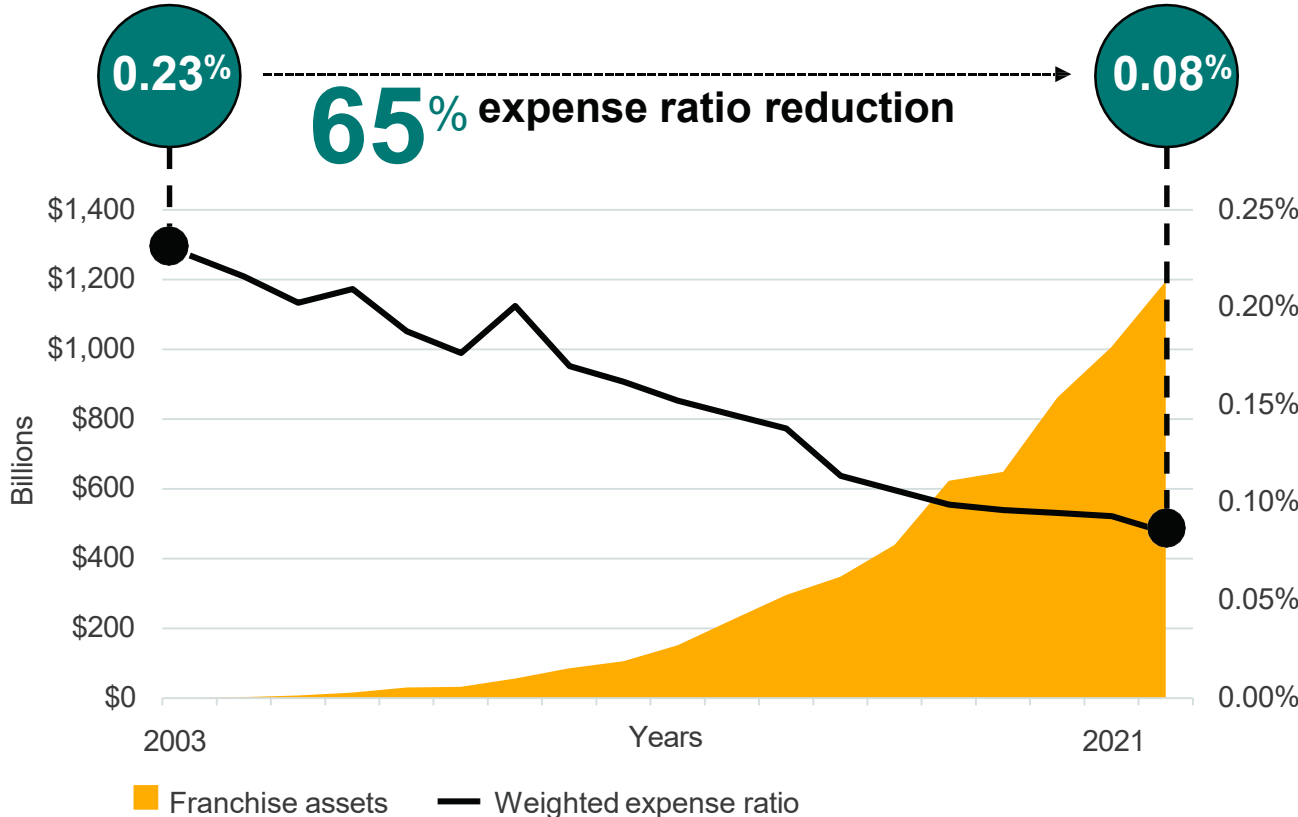
\* Fund shareholders own the funds that own Vanguard.

# 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

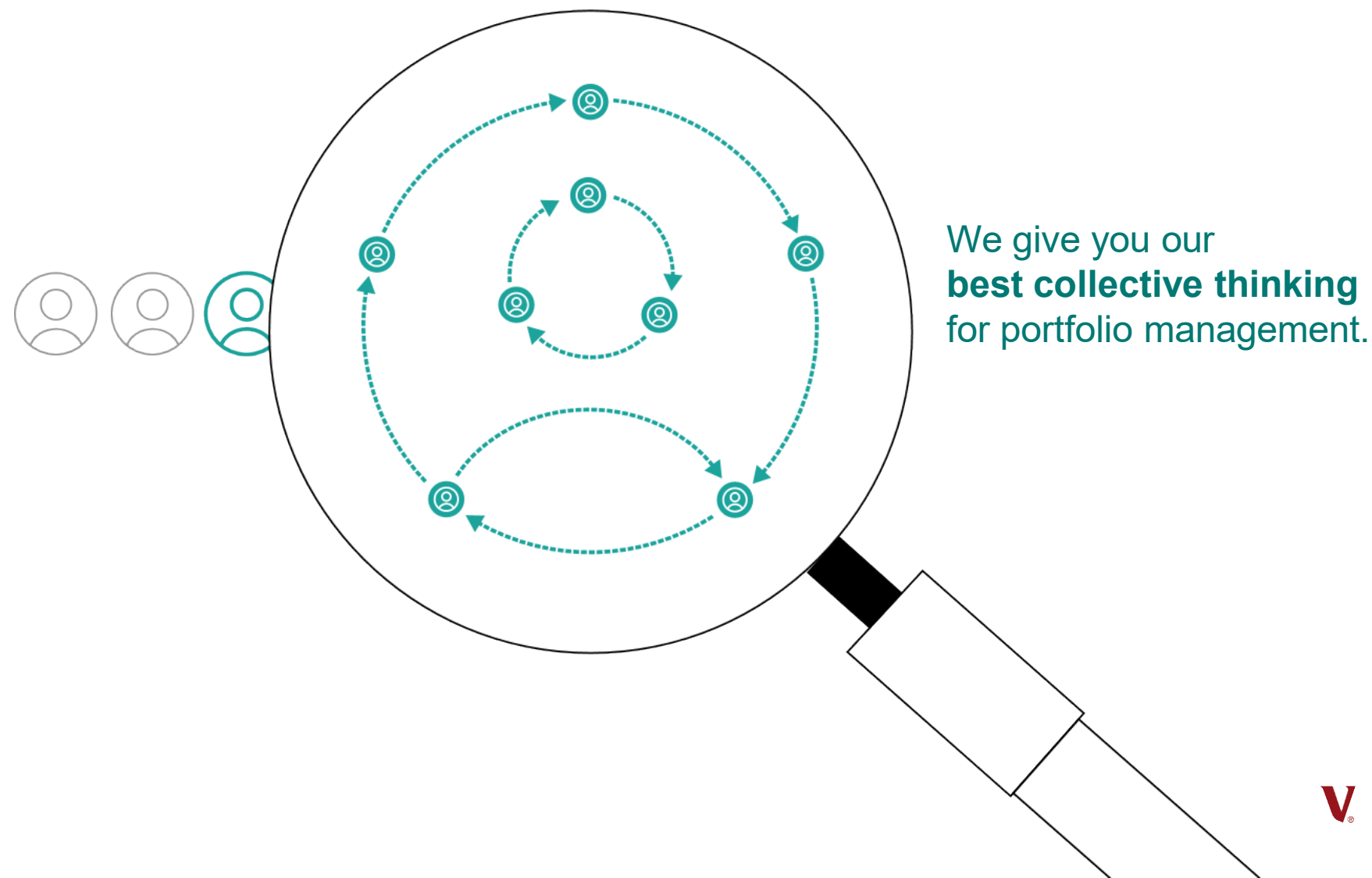
- Equity Index Group
- Fixed Income Group

## Research

- Investment Strategy Group
- Strategic Retirement Consulting

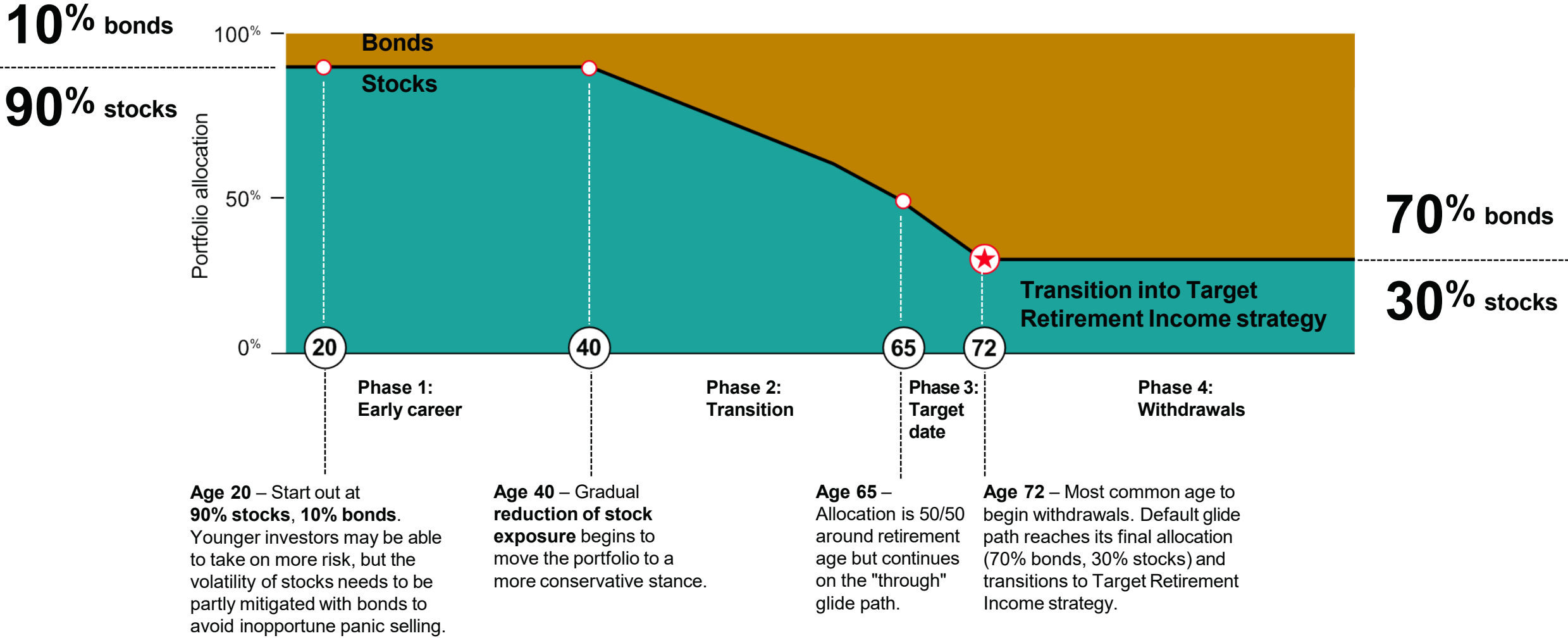
## Governance

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

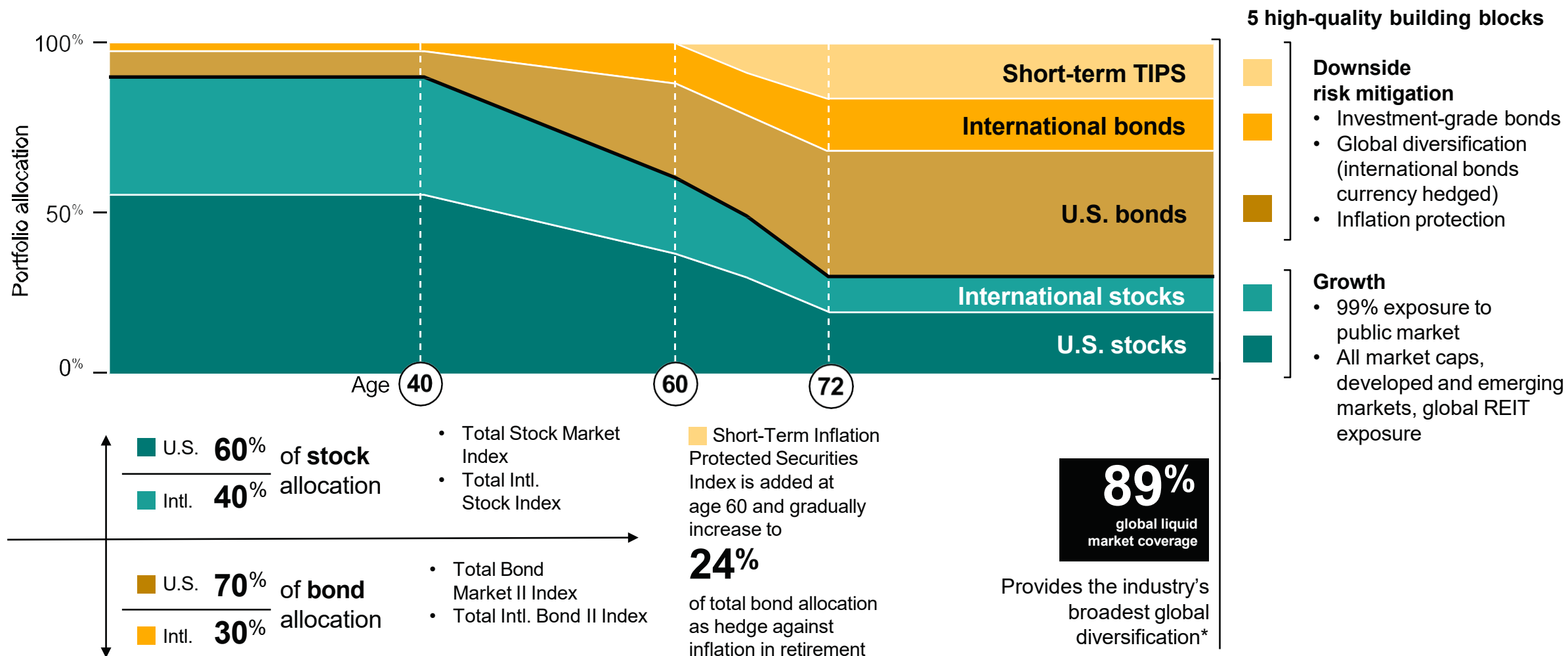


# Balancing risk and return at every stage of the investor's life

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



# A strategic asset allocation using high-quality building blocks



\* 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.



# 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

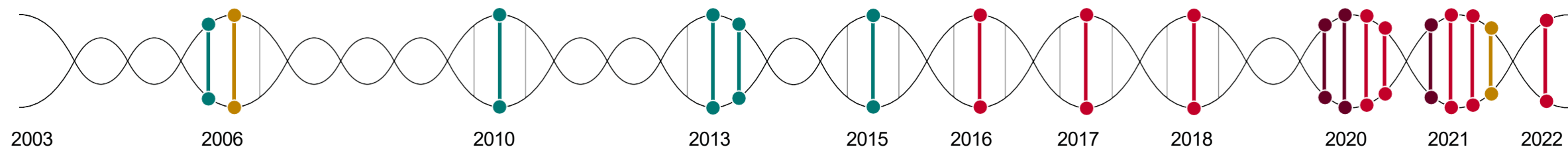
**We exclude strategies** that add volatility without adequate compensation in return or that fail to meet the criteria above.

## 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.

# 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)

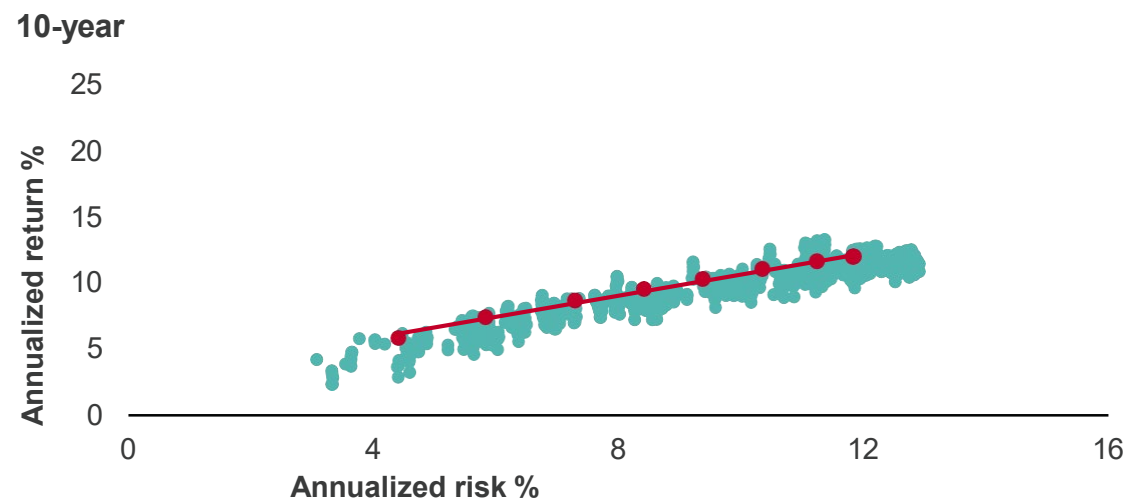
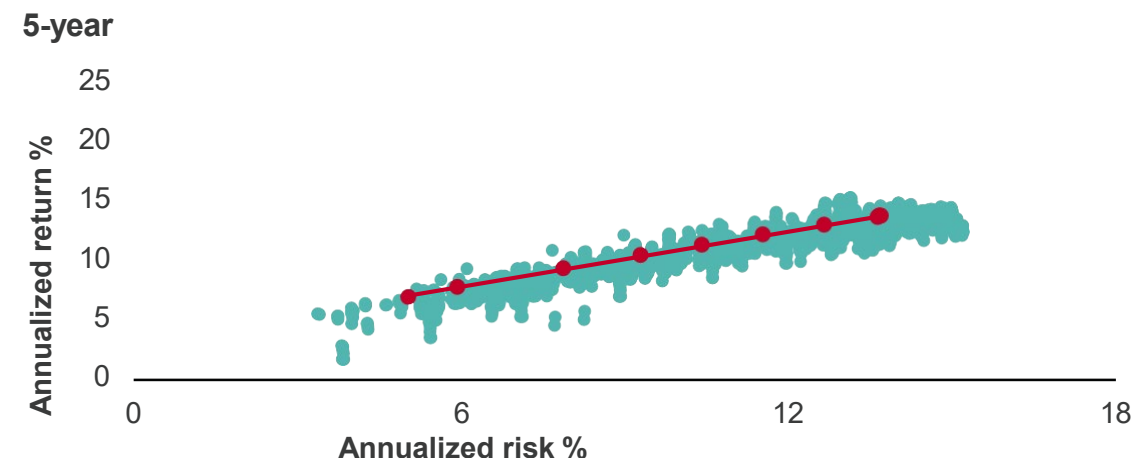
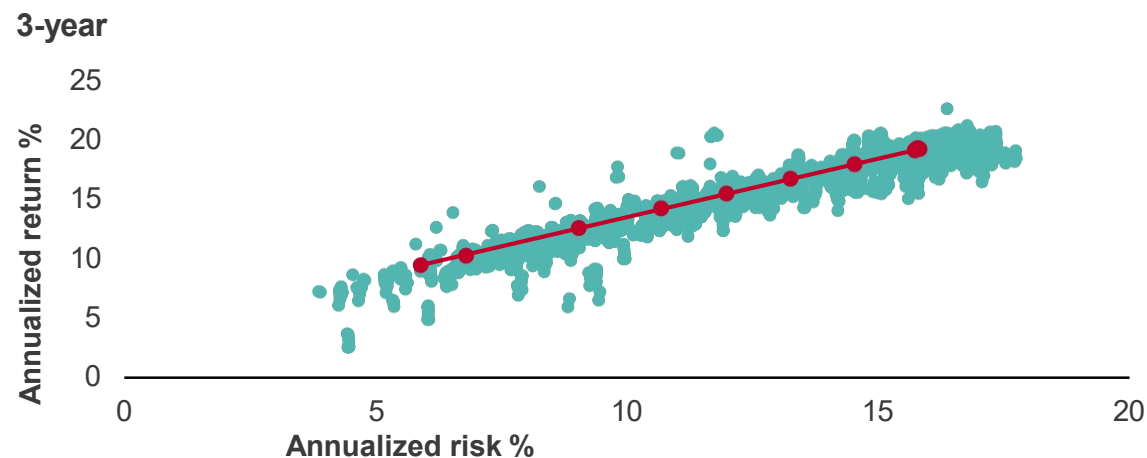
## Reduced implementation costs and tax drag

- 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)

# A history of consistently strong risk-adjusted performance



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

● TDF peers in Morningstar universe ● Vanguard Target Retirement Funds




Standard deviation was used for annualized risk. Results will vary for other time periods. All funds in the Morningstar peer group with a minimum 3-, 5-, or 10-year history, respectively, were included in the comparison. There may be other material differences between products that must be considered prior to investing. **Note that the competitive performance data shown represent past performance, which is not a guarantee of future results, and that all investments are subject to risks. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For the most recent performance, visit our website at [vanguard.com/performance](https://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	<b>Top quartile</b> 	<b>Top quartile</b> 	<b>Top quartile</b> 
Percentage of times fund outperformed the peer-group average based on 10-year rolling returns since inception	<b>100%</b> of the time	<b>100%</b> of the time	<b>100%</b> 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. 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 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](http://www.vanguard.com/performance).**

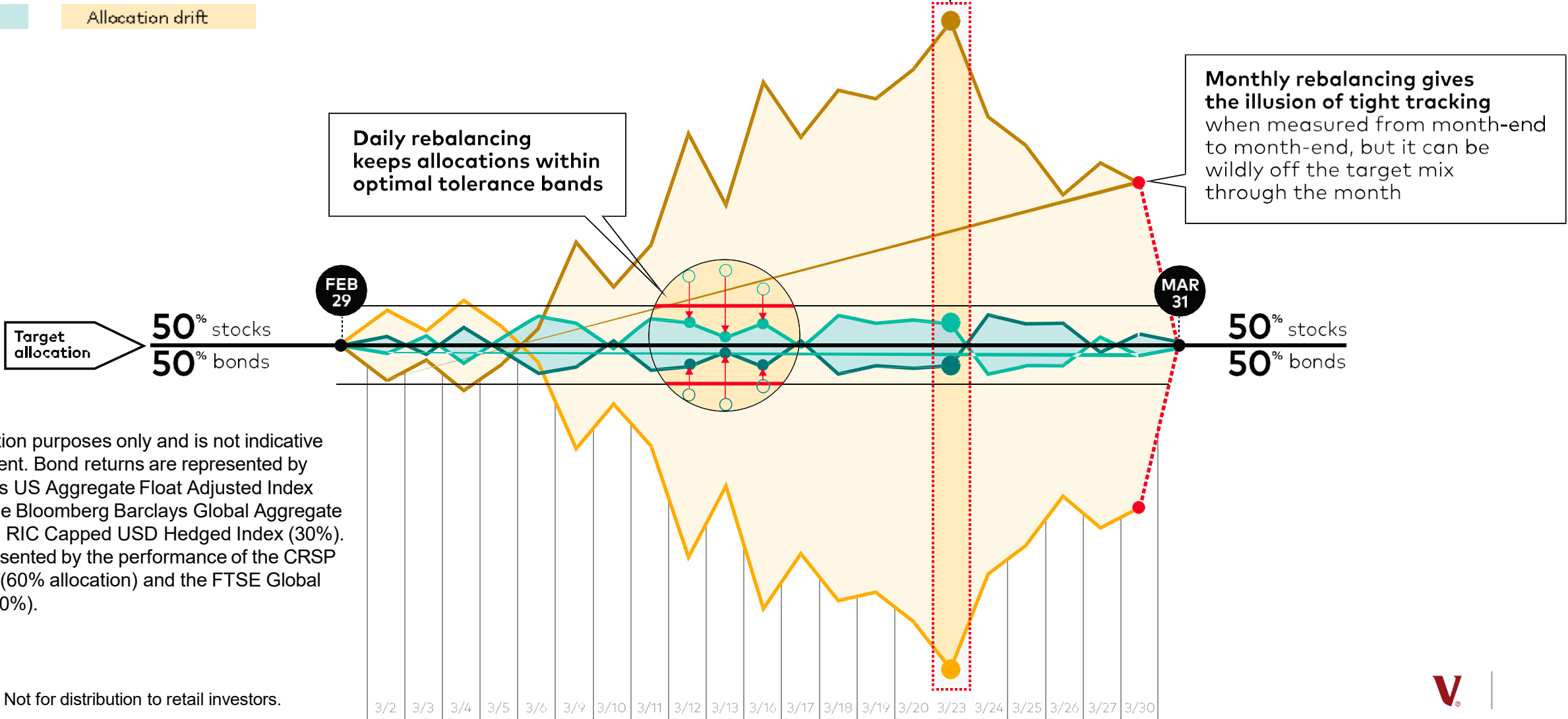
# Daily rebalancing means closer alignment to target asset mix



	Daily	Monthly
stocks	● 50.5%	● 57%
bonds	● 49.5%	● 43%

**MARCH 23, 2020**

At the height of pandemic-induced market volatility, the monthly rebalancing portfolio was 7 percentage points off the target 50/50 asset allocation



This chart is for illustration purposes only and is not indicative of any specific investment. Bond returns are represented by the Bloomberg Barclays US Aggregate Float Adjusted Index (70% allocation) and the Bloomberg Barclays Global Aggregate ex-USD Float-Adjusted RIC Capped USD Hedged Index (30%). Stock returns are represented by the performance of the CRSP US Total Market Index (60% allocation) and the FTSE Global All Cap ex US Index (40%). Source: Vanguard.

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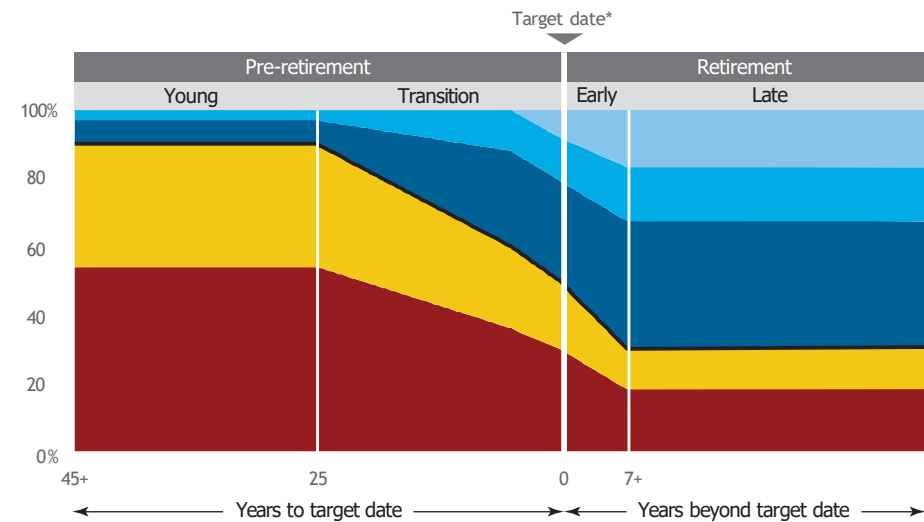
# Vanguard Target Retirement Trust Plus Overview

## 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.

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



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

## Stocks

- 60% U.S. stocks
- 40% International stocks

## Bonds

- 70% U.S. nominal bonds
- 30% International nominal bonds
- 0%–24% of total fixed income Short-term TIPS

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## 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.