Vanguard

Episcopal Foundation of Dallas

December 2021

Agenda

I. Vanguard Overview

II. Economic and Market Outlook

Presented by:

Geoffrey Hall, CFA, CAIA
Senior Investment Consultant
Vanguard Institutional Advisory Services®

Vanguard Overview

Aligned interests

Vanguard is investor-owned*

We have no outside investors or stockholders

We have no conflicting loyalties

We have your interests in mind

* Vanguard is investor-owned, meaning the fund shareholders own the funds, which in turn own Vanguard.

Experience with a trusted partner

Vanguard Institutional Advisory Services® (VIAS)

- Managing discretionary relationships since 1996
- 130+ employees, 60+ credentialed investment professionals*
- Managing over $66 billion in OCIO assets*
- Serve as OCIO for 164 education organizations with a total of over $10 billion in assets*

COGENT REPORTS™

- OCIO providers by large nonprofits[1] Ranked #1 for "Strong, consistent investment performance", "Being a company I trust", "Exceptional financial strength" and "Optimal fees/fee structure" among large nonprofits[1]
- Ranked #1 for consideration of OCIO providers by large nonprofits[1]

Pensions&Investments

2021 Largest Outsourcing Managers[2]:

#1 Ranked by Foundation Assets
#1 Ranked by Endowment Assets

* As of 9/30/2021
1 Source: *Cogent™ Wealth Reports: US Institutional Investor Brandscape®*, 2020.
2 Source: Pensions and Investments, 2021.

Vanguard active funds are Barron's top long-term performers

Barron’s Best Fund Family 2020

#1 for **ten-year** returns

#1 for **five-year** returns[1]

These awards, especially the five- and ten-year rankings, reflect our commitment to outstanding active offerings and long-term investment performance:

- 84% of our active funds outperformed their peer-group average over five and ten years.[2]
- We've been offering active funds since our start, and they now represent more than $1 trillion in assets under management.[3]
- We have top portfolio manager talent, both internal and external, plus an oversight committee that meets with about 200 asset managers annually to identify new portfolio managers.

1 Barron's story on February 19, 2021, calculated returns before all fees, loads, or charges were deducted. Index funds were excluded. Results were asset-weighted and ranked against actively managed peers in the relevant Lipper category. For more information please visit www.barron's.com.
2 Source: Lipper, a Thomson Reuters Company.
For the three-year period, 86 of 116 Vanguard funds outperformed their peer-group averages; for the five-year period, 87 of 104 Vanguard funds outperformed; for the ten-year period, 83 of 94 Vanguard funds outperformed. All data as of June 30, 2021. Results will vary for other time periods. Only funds with a minimum of three-, five-, or ten-year history, respectively, were included in the comparison.
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.
3 Source: Vanguard, as of December 31, 2020.

Important information

All investing is subject to risk, including the possible loss of the money you invest. Diversification does not ensure a profit or protect against a loss.

Investments in target-date funds are subject to the risks of their underlying funds. The year in the fund name refers to the approximate year (the target date) when an investor in the fund would retire and leave the workforce. The fund will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in target-date funds is not guaranteed at any time, including on or after the target date.

Vanguard won first place in the Barron's/Lipper Top Fund Families rankings for five- and 10-year performance, as featured in Barron's February 19, 2021, issue. Vanguard won 3rd place for one-year performance.

To be included in the survey, a firm must have at least three funds in the general equity category: one world equity, one mixed asset (such as a balanced or target-date fund), two taxable bonds, and one national tax-exempt bond fund. Index funds are excluded from the survey.

Barron's rankings are asset-weighted and based on relative performance for managed funds in those broad categories. To measure a manager's skill, rankings are independent of expenses beyond annual management fees. Aggregate fund family performance rankings, while informative, are not indicative of future success of any individual fund. Investors should not rely solely on such rankings in choosing investments for their portfolios.

Each fund's performance is measured against all of the other funds in its Lipper category, with a percentile ranking of 100 being the highest and 1 the lowest. This result is then weighted by asset size, relative to the fund family's other assets in its general classification. If a family's biggest funds do well, that boosts its overall showing; poor performance in its biggest funds hurts a firm's ranking.

Barron's has historically excluded single-sector and single-country stock funds, but those are now included as part of the general equity category. The magazine excludes all index funds, including pure index, enhanced index, and index-based. But Barron's includes actively managed exchange-traded funds (ETFs) with indexing strategies that are not the traditional capitalization-weighted or equal-weighted.
Finally, the score is multiplied by the weighting of its general classification, as determined by the entire Lipper universe of funds. The category weightings for the one-year results in 2020 were general equity, 35.6%; mixed asset, 20.7%; world equity, 17.3%; taxable bond, 21.9%; and tax-exempt bond, 4.8%. The category weightings for the five-year results were general equity, 36.2%; mixed asset, 20.9%; world equity, 16.9%; taxable bond, 21.6%; and tax-exempt bond, 4.4%. For the 10-year results, they were general equity, 37.5%; mixed asset, 19.5%; world equity, 17.3%; taxable bond, 20.8%; and tax-exempt bond, 4.8%. All 2020 data taken from Barron's Best Fund Families of 2020, posted February 19, 2021.

The scoring: Say a fund in the general U.S. equity category has $500 million in assets, accounting for half of the firm's assets in that category, and its performance lands it in the 75th percentile for the category. The first calculation would be 75 times 0.5, which equals 37.5. That score is then multiplied by 35.4%, general equity's overall weighting in Lipper's universe. So it would be 37.5 times 0.354, which equals 13.28. Similar calculations are done for each fund in our study. Then the numbers are added for each category and overall. The shop with the highest total score wins. The same process is repeated to determine the five- and 10-year rankings.

Visit Barrons.com for more information about the Barron's/Lipper Top Fund Families rankings.

Vanguard funds not held in a brokerage account are held by The Vanguard Group, Inc., and are not protected by SIPC. Brokerage assets are held by Vanguard Brokerage Services®, a division of Vanguard Marketing Corporation, member FINRA and SIPC.

Biography

Geoff Hall, CFA, CAIA, CMT

Geoff Hall, CFA, CAIA, CMT is a senior investment consultant in VIAS, where he manages institutional client relationships and portfolios, providing asset allocation, portfolio design, and investment policy consulting for endowment, foundation and other nonprofit portfolios. He joined Vanguard in 2017 and has 31 years of portfolio management and investment consulting experience serving institutional and retail clients.

Geoff earned a B.S. from Kentucky Wesleyan College and an MBA from Xavier University. He is a Chartered Financial Analyst® charterholder, a Chartered Alternative Investment Analyst charterholder and Chartered Market Technician (CMT). He also holds FINRA series 7, 63 and 65 licenses.

Tracking #: 1901845 Expiration date: 5/3/2023

The Episcopal Foundation of Dallas has a dedicated team that solely works with nonprofit organizations

Geoff Hall, CFA, CAIA, CMT
Senior Investment Consultant

Chris Moore, CFA, CAIA
Investment Analyst

Conner Brinton
Client Service Analyst

Supported by a team with deep investment expertise and extensive operational support

Andrea Dalton
Transition Manager

Guides your transition to Vanguard, making it smooth and effortless for your team

Natalie Mills
Department Head

Supports all your standard and custom reporting needs and requests.

Lisa Swatkoski, CFA
Head of Product Solutions

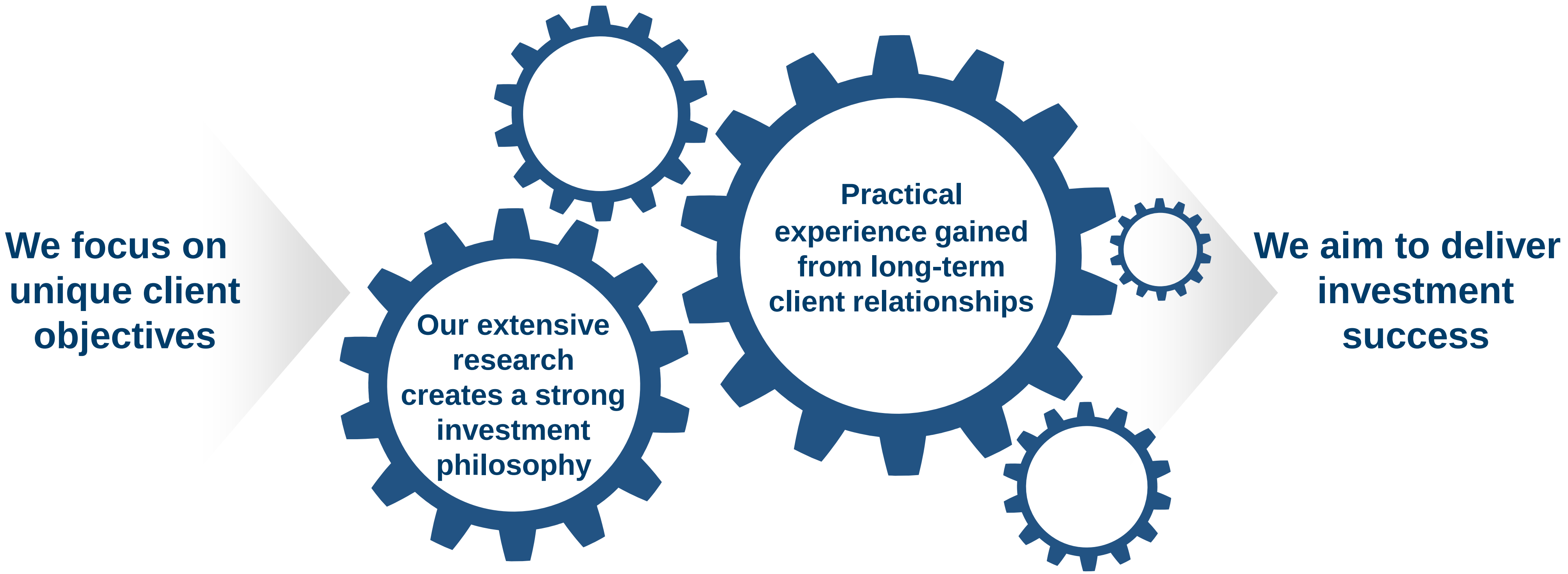
Supports Geoff with evaluation of investment solutions for institutional clients.

Jeremy Tennenbaum, CFA
Senior Nonprofit Strategist

Partners with Geoff on a wide range of issues: Fiduciary best practices, IPS consulting, and recent legislation.

Tracking #: 1901845 Expiration date: 5/3/2023

Enduring investment approach

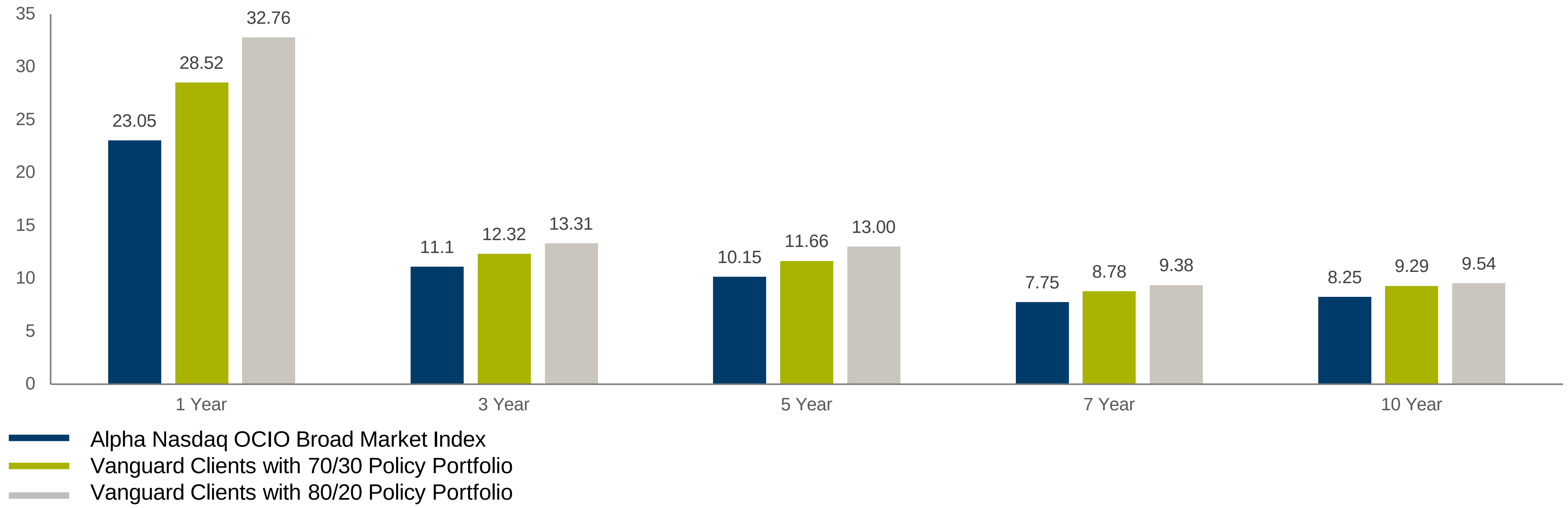


Investment principles

- Asset allocation is the primary portfolio decision
- Broad diversification is crucial
- Low cost is a critical success factor
- Long-term success requires strategic discipline
- Indexing is a powerful strategy for achieving market exposure
- Active management can outperform under the right conditions

Proven outcomes

Vanguard's OCIO results vs. our OCIO peer group (as of 6/30/2021)
Average annualized returns



Sources: 6/30/2021 AlphaNasdaq OCIO Index and Vanguard.

All returns are reported net of fees. The volatility of the VIAS portfolios may be materially different from that of the AlphaNasdaq portfolios. AlphaNasdaq institutions' may have had during the time periods noted above, and may currently have, investment objectives that are not consistent with the VIAS portfolios. *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.*

VIAS portfolios are reviewed quarterly to determine the deviation from target weightings and rebalanced according to written investment guidelines. VIAS advisory fees are subject to change dependent on portfolio size and as described in the VIAS advisory brochure. VIAS portfolios are subject to fluctuations in value and investment losses. Please see important information slide for additional details.

The performance results reflected in the composite performance represents VIAS clients based on the categorization of the clients as "discretionary" clients with nonretirement portfolios. These results do not reflect the performance of all of VIAS' clients. Moreover, the client portfolio results have been aggregated and reflect the use of different underlying mutual funds for individual client portfolios. For example, the equity allocation includes both actively managed and index funds, consequently, individual client portfolio results may have been different from the results displayed above.

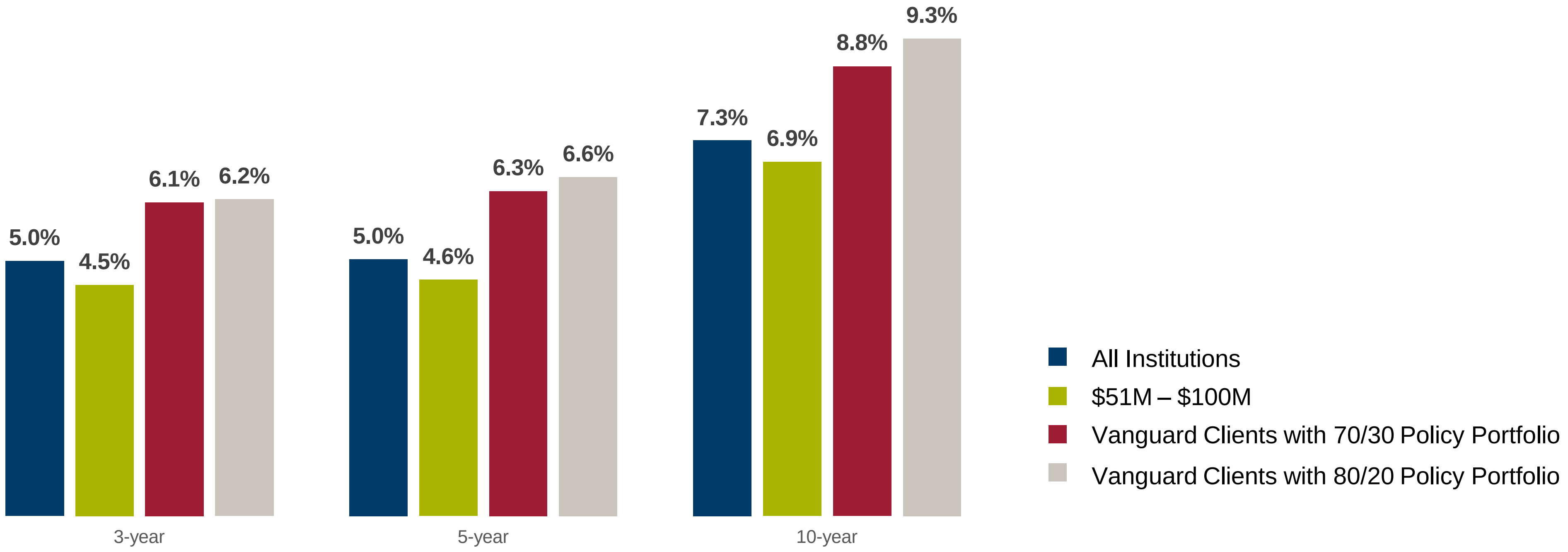
The results displayed in the Performance Review are net of advisory and mutual fund fees. Advisory fees are calculated and assessed as set forth in VIAS' advisory brochure and in each client's Investment Management Agreement, and are based on each client's assets. Mutual fund expenses are set forth in each respective fund's prospectus. Clients will have access to the lowest-cost share classes for each appropriate strategy, when minimum investment requirements are met. Accordingly, the performance of the client portfolios included above is not intended to be reflective of the potential performance of a VIAS-managed portfolio for a specific client, which may be subject to different advisory and mutual fund fees.

Investment strategies used by VIAS, including for the client portfolios with performance results displayed above, involve risk of loss, and fluctuations in the financial markets and other factors may cause declines, which may be significant, in the value of a portfolio over short or extended periods of time. Neither VIAS nor any affiliated entity offers any guarantee that investment results or objectives sought by any client will be achieved.

The Vanguard results reflect the reinvestment of dividends and other fund distributions.

Proven outcomes

Vanguard Nonprofit client returns compared to U.S. College and University Endowment returns – As of 6/30/2020



Source: Vanguard using data from NACUBO-TIAA Study of Endowments as of fiscal year-end June 30, 2020.

Vanguard Performance Review Footnotes

The performance results reflected in the composite performance represents VIAS clients based on the categorization of the clients as "discretionary" not for profit organization clients. These client portfolios range in size from $3 million to over a billion dollars. Moreover, the client portfolio results have been aggregated and reflect the use of different underlying asset allocations and mutual funds for individual client portfolios. For example, the equity allocation includes both actively managed and index funds, consequently, individual client portfolio results may have been different from the results displayed above. The volatility of the VIAS portfolios is materially different from that of the NACUBO institutions' portfolios. NACUBO institutions may have had during the time periods noted above, and may currently have, investment objectives that are not consistent with the VIAS portfolios.

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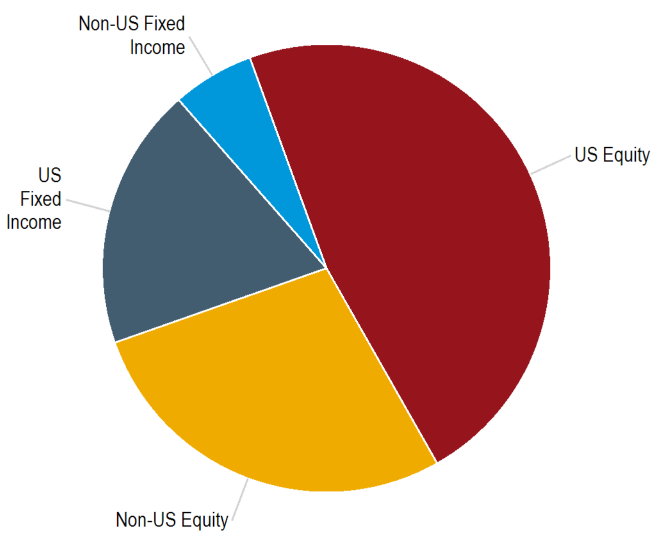
Total Portfolio Performance & Asset Allocation

Performance Summary ending October 31, 2021

	Market Value ($)	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
EPISCOPAL FOUNDATION OF DALLAS	**48,511,924**	**3.67**	**1.89**	**12.64**	**29.58**	**15.19**	**12.65**	**--**	**10.29**	**Jun-15**
EPISCOPAL FOUNDATION OF DALLAS (Net)		**3.67**	**1.86**	**12.55**	**29.45**	**15.08**	**12.53**	**--**	**10.18**	
Composite Benchmark		3.73	2.25	12.84	28.30	14.93	12.21	--	10.05	Jun-15

- Composite Benchmark = 47% Spliced Total Stock Market Index / 28% Spliced Total International Stock Index / 19% Spliced Bloomberg Barclays US Aggregate Float Adjusted Index / 6% Bloomberg Barclays Global Aggregate ex-USD Float Adjusted RIC Capped Hedged

Current Allocation as of October 31, 2021



	Current $	Current %	Policy	Difference*
US Equity	$22,956,915	47.3%	47.0%	0.3%
Non-US Equity	$13,502,858	27.8%	28.0%	-0.2%
US Fixed Income	$9,168,469	18.9%	19.0%	-0.1%
Non-US Fixed Income	$2,883,682	5.9%	6.0%	-0.1%
Total	**$48,511,924**	**100.0%**	**100.0%**	

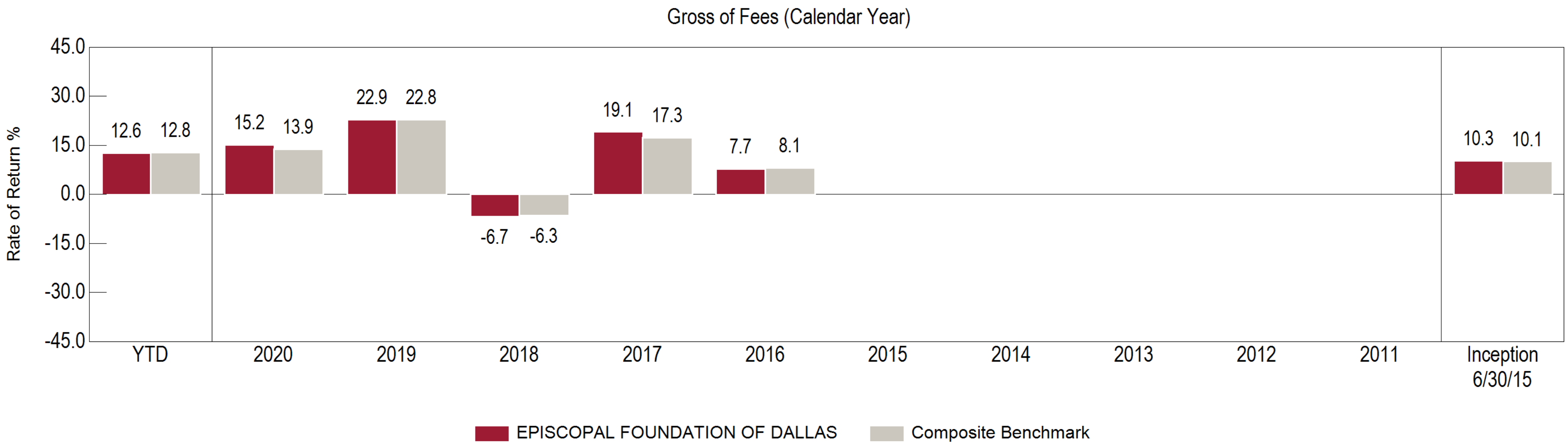
*Difference between Policy and Current Allocation

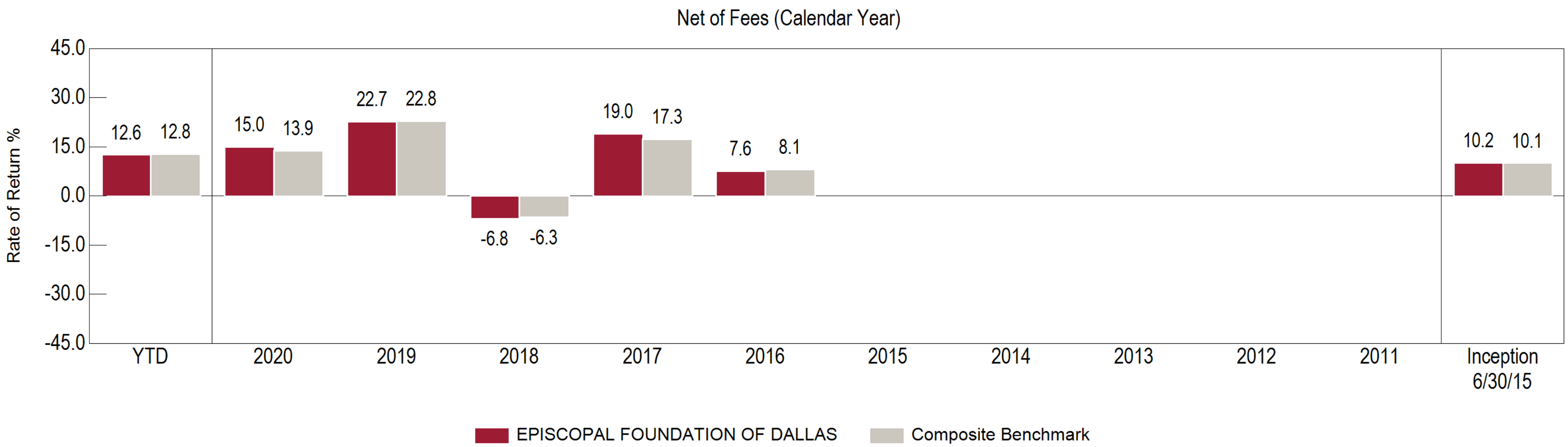
Gross of Advisory Fee returns reflect the deduction of fund expense ratios and any other security-level expenses.

Net of Fee returns reflect the deduction of fund expense ratios, any purchase or redemption fees, and VIAS advisory fee applied to the client portfolio.

Returns greater than one year represent annualized returns. Returns less than one year represent cumulative returns.

Total Portfolio Performance





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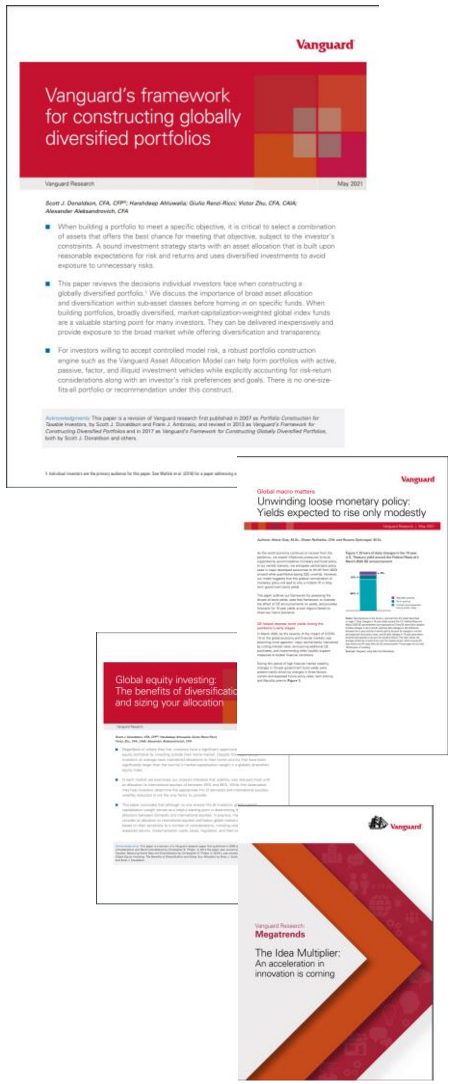
Portfolio management and recommendations backed by extensive and ongoing research



Latest publication

Vanguard's framework for constructing globally diversified portfolios

White papers:

- *Global equity investing: The benefits of diversification and sizing your allocation*
- *Vanguard's Life-Cycle Investing Model (VLCM) A general portfolio framework for goals-based investing*
- *Can fixed income managers be cloned using style funds? A practical testing method*
- *Vanguard economic and market outlook for 2021: Approaching the dawn*
- *The role of private equity in strategic portfolios*
- *Patience with active performance cyclicality: It's harder than you think*
- *Vanguard Asset Allocation Model (VAAM)—an investment solution for active-passive-factor portfolios*
- *How to increase the odds of owning the few stocks that drive returns*

Articles:

- *Unwinding of loose monetary policy: Yields expected to rise only modestly*
- *Can your nonprofit ride out the storm?*
- *What's the plan for your nonprofit?*
- *Nonprofits: A time to address your 'Achilles heels'?*
- *OCIO's long-term view pays off during downturn*

Why Vanguard

- Vanguard’s ownership structure ensures alignment with your goals
- Dedicated nonprofit team with deep experience working with institutions.
- Insights into asset allocation and portfolio construction that have historically achieved results for the Episcopal Foundation of Dallas.

Economic and Market Outlook

Vanguard November 2021 market and economic outlook at a glance

Key takeaways:

- Vanguard foresees fourth-quarter U.S. growth around 5.5% and full-year growth for 2022 around 3.5% to 4.0%.
- We've downgraded our view on China's growth to reflect more persistent policy-related supply shocks and uncertainty.
- Recent labor market and inflation developments have led Vanguard to move up our expected timeline for a Fed rate hike to late 2022.
- We foresee the core Consumer Price Index (CPI) ending this year just below 4.5% year-on-year and ending 2022 just above 3.0%.

Asset-class return outlooks

Our 10-year, annualized, nominal return projections, as of June 30, 2021, are shown below. 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 percentile for fixed income.

Equities	Return projection	Median volatility
U.S. equities	2.3%–4.3%	16.7%
Global equities ex-U.S. (unhedged)	5.1%–7.1%	18.7%

Fixed income	Return projection	Median volatility
U.S. aggregate bonds	1.3%–2.3%	4.5%
U.S. credit bonds	1.5%–2.5%	4.6%
Global bonds ex-U.S. (hedged)	1.2%–2.2%	3.8%
U.S. Inflation	1.4%–2.4%	2.3%

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 June 30, 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.

Vanguard November 2021 market and economic outlook at a glance

Region-by-region outlook

Labor constraints hold back U.S. growth

United States. Signs of a growth slowdown at the start of the third quarter in the United States appear to be stabilizing as the impact of the COVID-19 Delta variant subsides. Supply constraints, however, particularly in the labor market, are likely to keep growth from realizing its potential in the quarter.

- We foresee fourth-quarter growth around 5.5% and full-year 2021 growth around 6.0%. For 2022, we expect growth around 3.5% to 4.0%.
- Although health outcomes remain important, we expect the most severe outcomes to be mitigated by high vaccination rates among the most vulnerable individuals, and for economic sensitivity to virus spikes to wane through the fourth quarter.
- GDP growth was a weaker-than-originally-expected 6.7% in the second quarter, according to the third and final estimate by the Bureau of Economic Analysis.

Euro area. A consumption impulse whose timing trailed that of the United States and the United Kingdom is buoying growth and consumer confidence in the euro area.

- Despite some signs of an easing in momentum, we continue to foresee full-year GDP growth around 5%, which would put the euro area on track to reach its pre-pandemic level of growth in the fourth quarter.
- We foresee 2022 growth around 4%, lower than in the United Kingdom, where the pandemic- induced fall-off in growth was larger and there's more ground to recover.
- We foresee the euro area reaching its pre-pandemic growth trajectory around the start of 2023.

China. The economy in China grew by just 4.9% in the third quarter compared with a year earlier, below market expectations, according to data released by the National Bureau of Statistics.

- We foresee growth in the fourth quarter of around 1.0% compared with the third quarter, below trend and down from our earlier forecast of just above 1.5%.
- Such a more modest fourth-quarter rebound would come amid a backdrop of tightened controls in the property and energy sectors, which we see as representing fundamental shifts in China's policy priorities that we expect to continue into 2022.
- Reflecting this more persistent nature of policy-related supply shocks and uncertainty, we've downgraded our view on China's growth from a range of 8.0% to 8.5% to slightly below 8.0% in 2021 and to around 5.0% in 2022, both of which remain below consensus.
- The magnitude of the consumption and export-driven rebound in the fourth quarter and in 2022 will hinge critically on policy actions, both micro regulation and macro easing.

Emerging markets. Growth in emerging markets is likely to depend in the medium term on inflation and central bank actions, including actions taken in developed markets that could spur some emerging markets to follow suit.

- Where inflation is running high, such as Latin America, interest rate hikes have occurred and may not be finished—a headwind to growth.
- Where growth is the more immediate concern, however, including some markets in central Europe, rate hikes are less likely, and economic recovery from the pandemic is likely to have fewer obstacles.

Vanguard November 2021 market and economic outlook at a glance

Labor force participation is key

Employment headed for a rebound?

We anticipate monthly job gains averaging 700,000 the rest of the year. We also foresee an increasing participation rate as unemployment benefits fade out and virus fears wane amid increased vaccination.

- We expect labor force participation to peak around 62.3%, a full percentage point below its February 2020 level before the onset of the COVID-19 pandemic.
- Though demand for labor is robust, behavioral and demographic factors keeping people out of the labor force are showing signs of persistence.

Balancing dual objectives

Expected timeline moves up for a Fed rate hike

Recent labor market and inflation developments have led Vanguard to move forward our expectations for the timing of the first Federal Reserve post-pandemic rate hike to late 2022.

- With the Fed's inflation target largely already met, labor market strength and the Fed'sinterpretation of "full employment" remain key for the timing of the Fed's hike.
- A risk factor is how the Fed would treat an unemployment rate of around 3% while laborforce participation falls short of pre-pandemic levels—especially if pandemic-induced earlyretirements turn permanent.
- Vanguard believes the Fed will announce the timetable for its reducing asset purchases at itsnext meeting despite a weaker-than-expected September jobs report.

Oil prices affect headline inflation

Inflation concerns linger

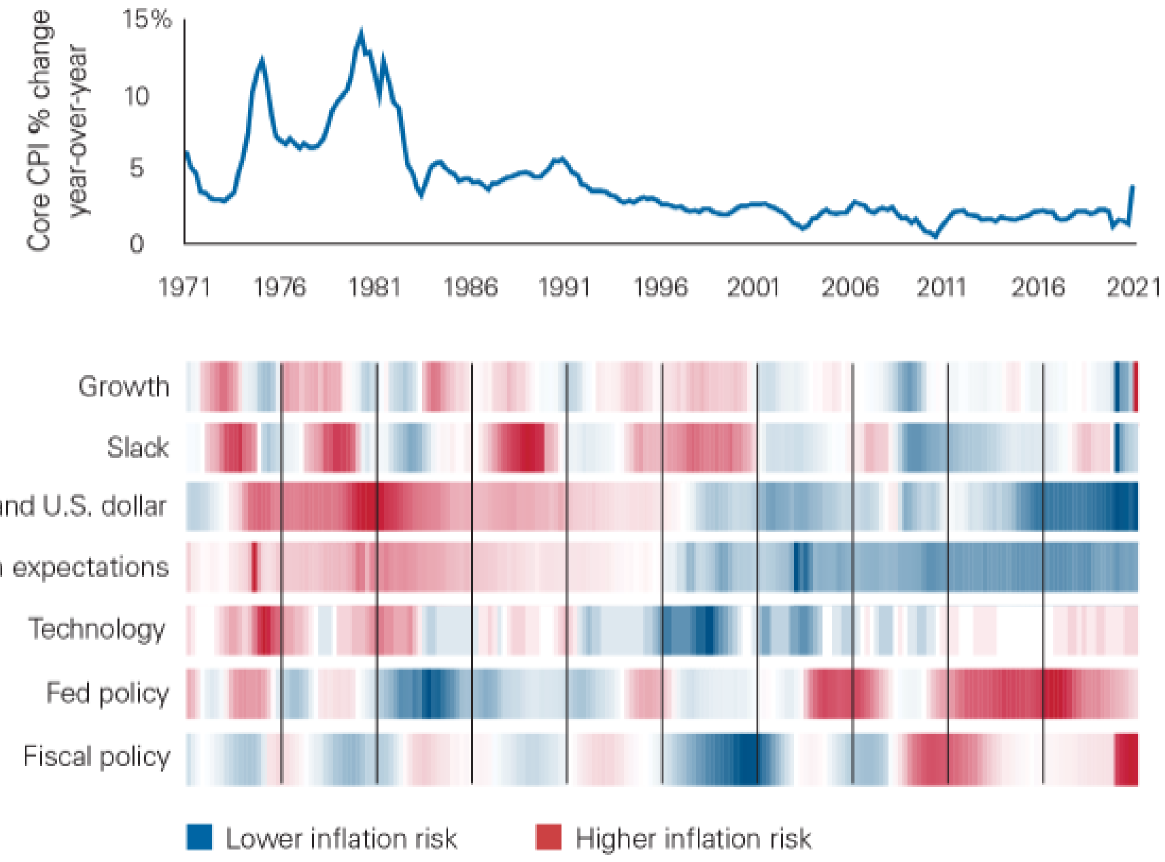
Amid labor and other supply constraints, we expect the core Personal Consumption Expenditures Index (PCE), the Federal Reserve's preferred inflation measure, to end 2021 just above 4.0% compared with a year earlier, and to end 2022 around 2.5% higher year-on-year.

- We foresee the core Consumer Price Index (CPI) ending this year just below 4.5% year-on-yearand ending 2022 just above 3.0%.
- Core versions of price indexes strip out volatile food and energy prices. Headline inflation could be in for some volatility in the near term as U.S. benchmark crude oil futures approach $85 a barrel, levels last seen seven years ago.
- We foresee higher oil prices adding 20 basis points to headline CPI and 10 basis points toheadline CPE.
- The many drivers of inflation show a mixed picture (see figure). Fiscal and monetary policies are highly stimulative, yet the secular disinflationary forces such as technology have not disappeared.

Vanguard November 2021 market and economic outlook at a glance

Oil prices affect headline inflation (continue)

The key drivers of U.S. inflation are sending mixed signals



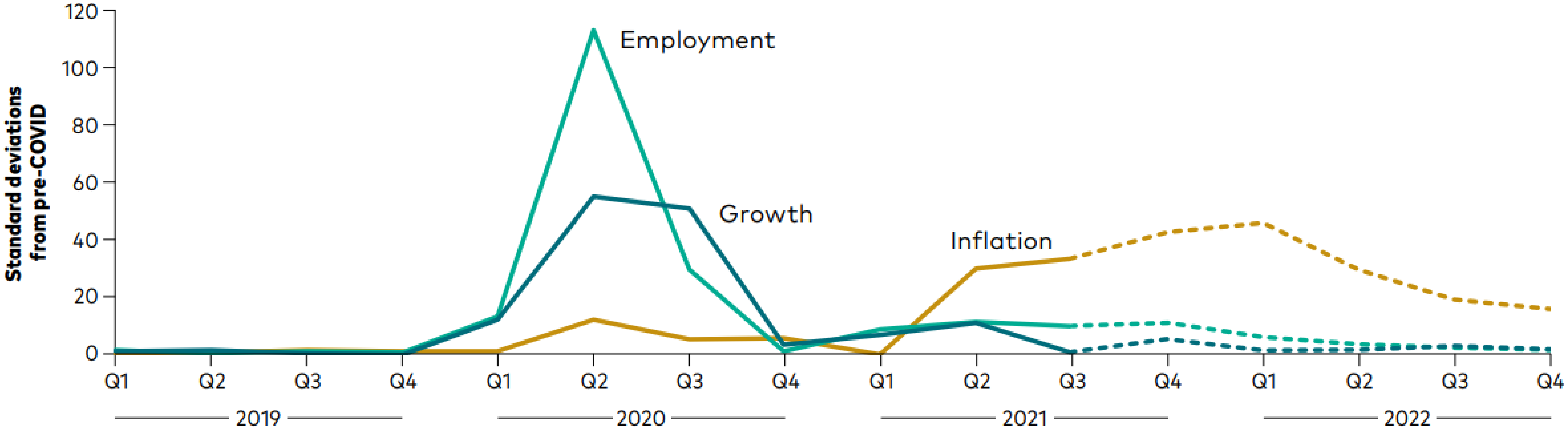
Note: Data cover the 50 years ended June 1, 2021.

Sources: U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics, and Federal Reserve, using information from Refinitiv.

A shot in the arm: Reopening, inflation, and the Fed

22

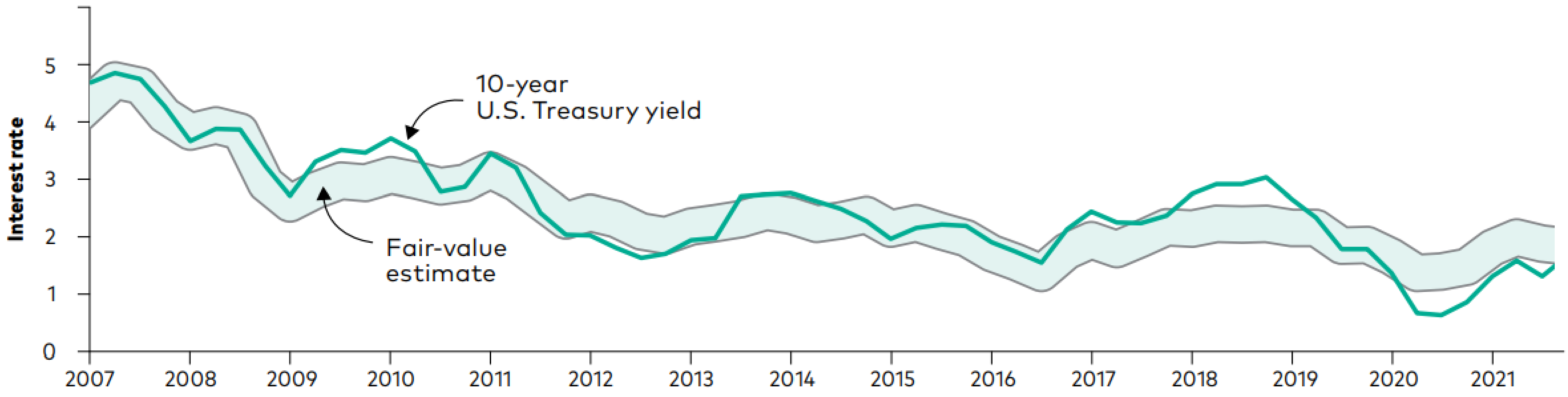
Economic volatility to remain well into 2022



Notes: The chart depicts the absolute difference in standard deviation of observed readings from the 2019 trend. Dotted lines represent Vanguard forecasted values.
Sources: Vanguard forecast and calculations, based on Refinitiv data.

Market pricing has settled in fair-value ranges

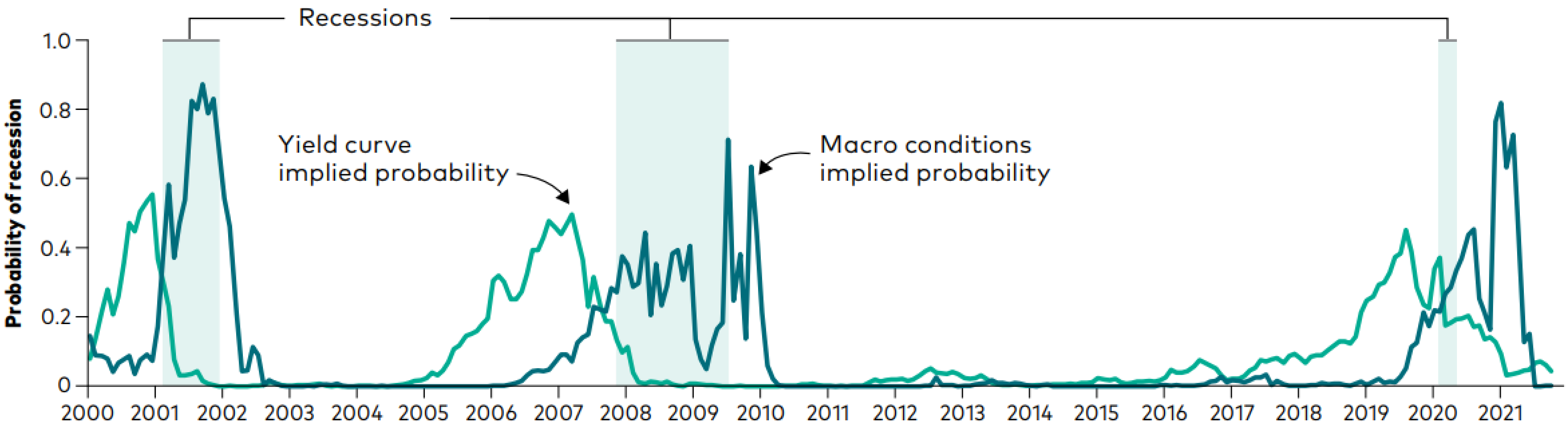
A. 10-year Treasury yield has moved into fair-value range



Notes: The 10-year U.S. Treasury fair-value model is an ordinary least squares model based on cross-asset relationships and their predictive relationship to the 10-year U.S. Treasury yield. Assets examined in the cross-asset model are U.S. equity market industry groups (financials, consumer discretionary, consumer staples, industrials, and utilities), U.S. Treasury market volatility as measured by the Merrill Lynch Option Volatility Estimate (MOVE) Index, precious and industrial metals (copper and gold), and currency relationships (Japanese yen and U.S. dollar).
Sources: Vanguard and Refinitv, based on data from the London Metal Exchange, ICE Benchmark Administration, Standard & Poor's, MSCI, the U.S. Federal Reserve, and Merrill Lynch.

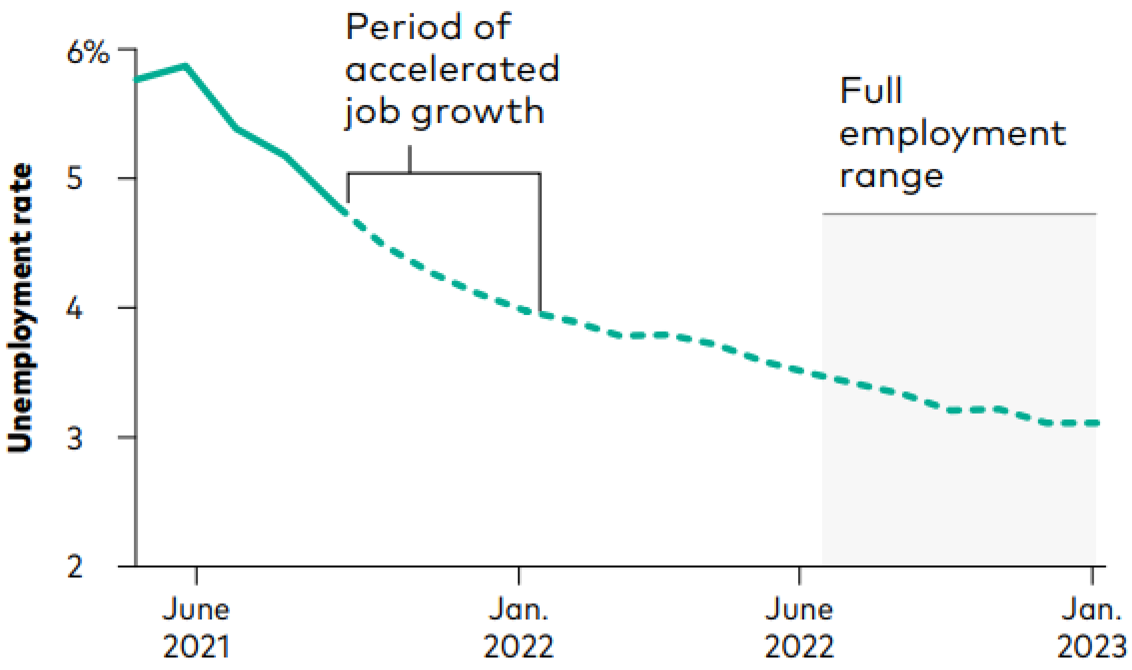
Market pricing has settled in fair-value ranges

B. Recession pricing from yield curve and broader macroeconomic fundamentals has normalized



Notes: Macro conditions implied probability is based on results of a probit model accounting for credit default spread (AAA interest rates minus Baa interest rates), yield curve (10-year U.S. Treasury yield minus 3-month T-bill yield), proprietary economic growth and momentum indicators, changes in the Standard & Poor's 500 Index, and S&P 500 Index volatility. Yield curve implied probability is based on results of a probit model accounting for 10-year U.S. Treasury yield minus 3-month T-bill yield. Recession is as defined by the National Bureau of Economic Research. Probabilities are derived based on data from January 1982 through October 2021.
Sources: Vanguard calculations, based on data from the Federal Reserve Bank of St. Louis, Standard & Poor's, Thomson Reuters Datastream, and the Federal Reserve System Board of Governors.

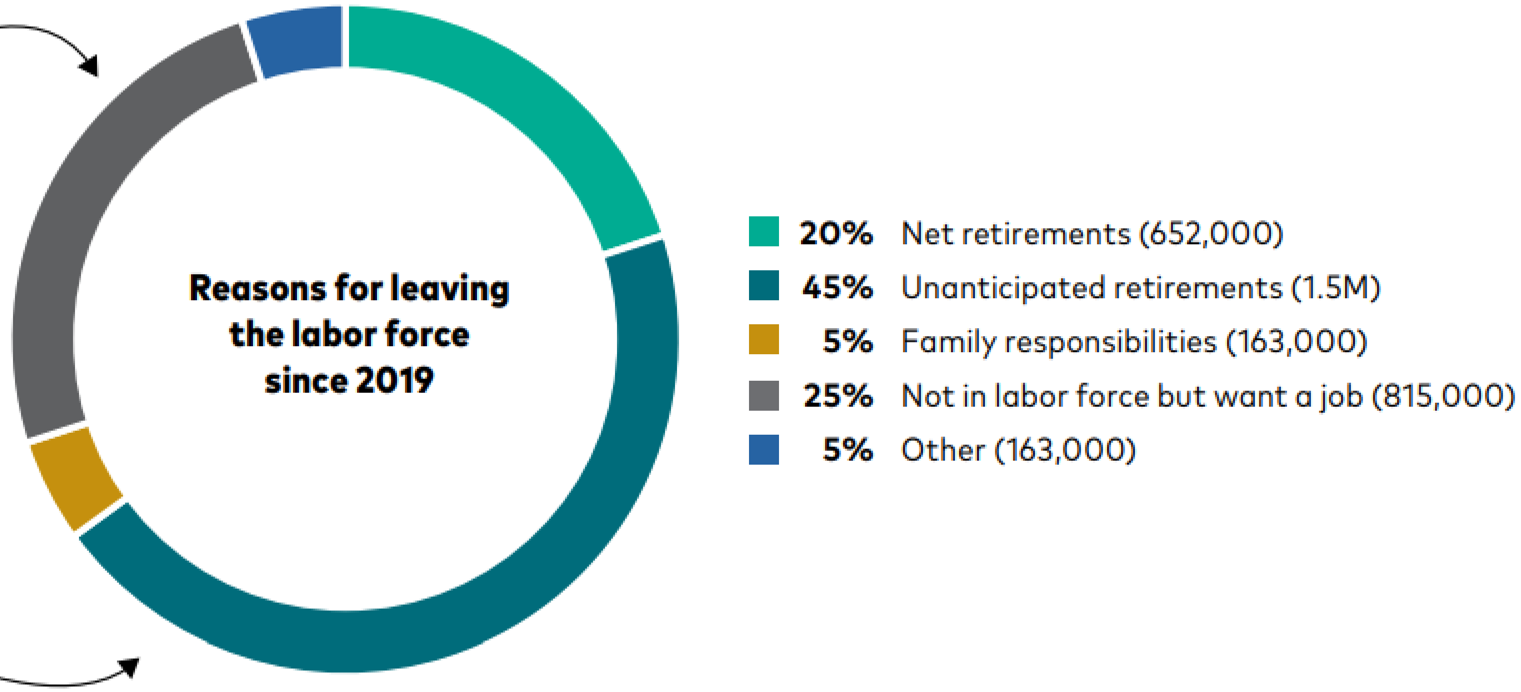
Full employment range is expected to be reached by year-end 2022



Notes: The dotted line depicts the Vanguard headline (U-3) unemployment rate forecast. U-3 is the most commonly reported rate of U.S. unemployment.
Sources: Vanguard forecast and calculations, based on Refinitiv data.

Majority of the labor force shortfall will persist

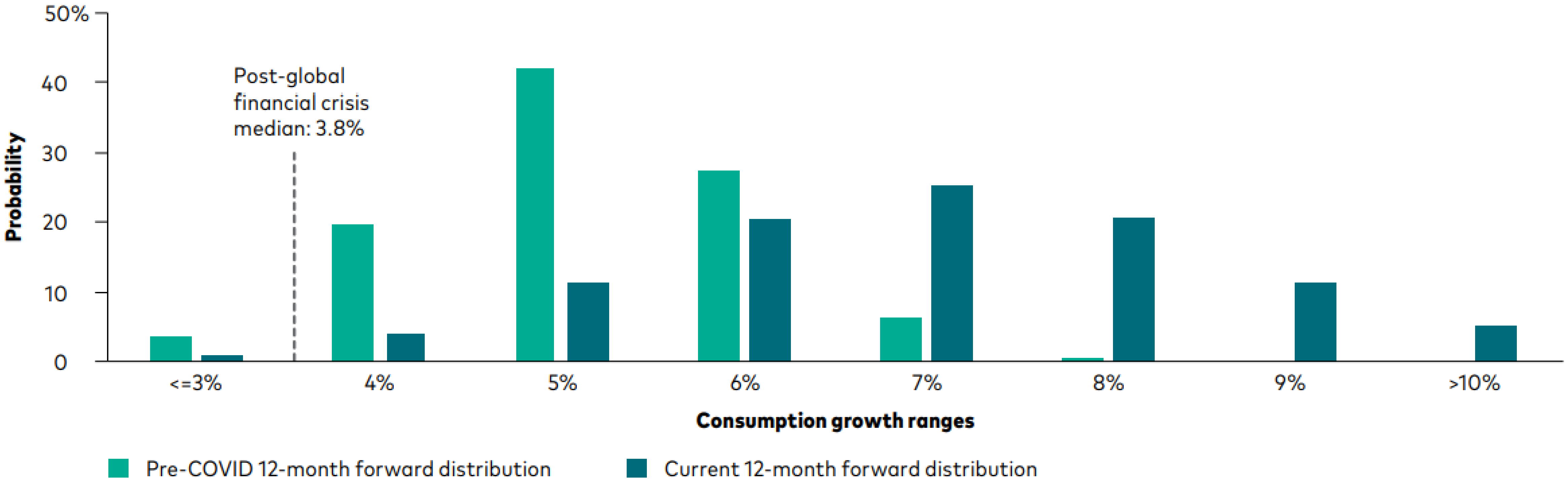
A very tight labor market should entice the majority of these workers back into the labor force by mid-2022



We expect that 75% of these unanticipated retirements will still be out of the labor force at year-end 2023

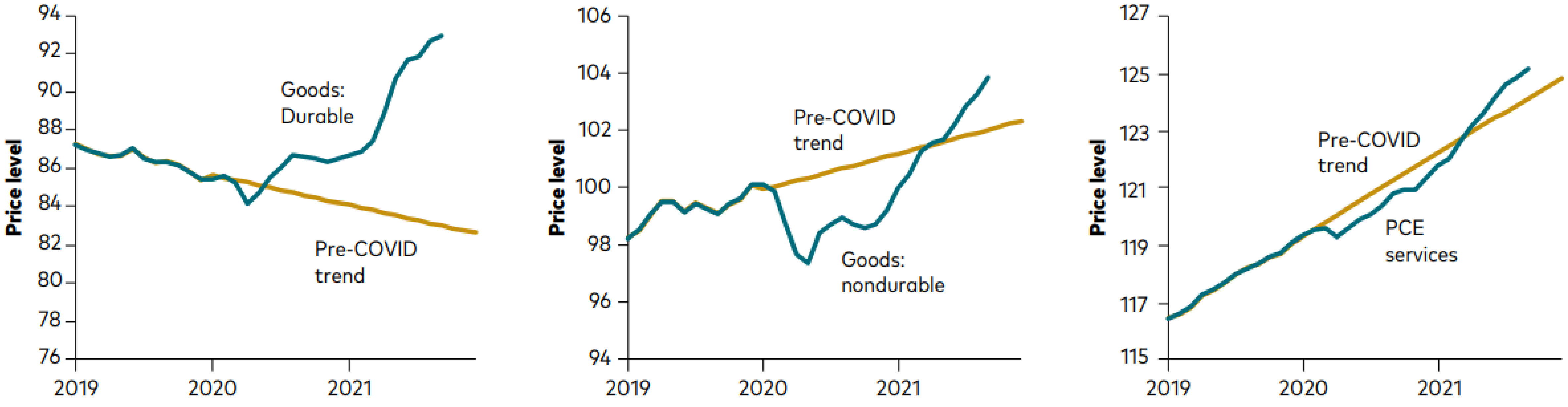
Notes: Net retirements refers to expected retirements minus new labor market entrants. This is a normal labor market rotation that occurs as older workers retire and younger workers enter the labor force. This rotation will have a net negative effect on the labor force from 2020 to 2025 because retirements will exceed new labor market entrants. Unanticipated retirements are retirements in excess of what our demographic models predicted—workers who likely retired as a result of pandemic implications. Family responsibilties refers to those who are not working because they are caring for family. Other includes those who have left the labor force to continue their education or because of a disability. All figures represent the change from 4Q 2019 to 2Q 2021.
Sources: Vanguard calculations, based on data from the Federal Reserve Bank of Atlanta.

Favorable consumption drivers point to sustained strength from households



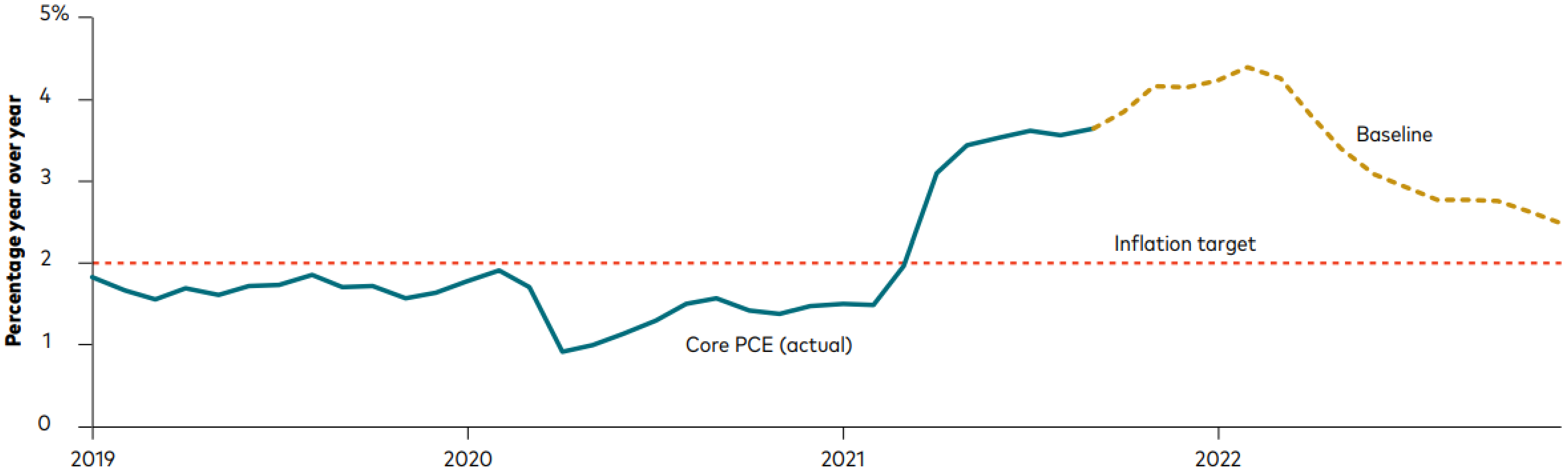
Note: The chart depicts the distribution of forecasted consumption ranges based on simulations from a regression using four-quarter lagged savings rate, financial obligations ratio, overall economic activity based on Vanguard leading economic indicators model, and and household wealth growth.
Sources: Vanguard and Refinitiv.

Inflation pressures have broadened



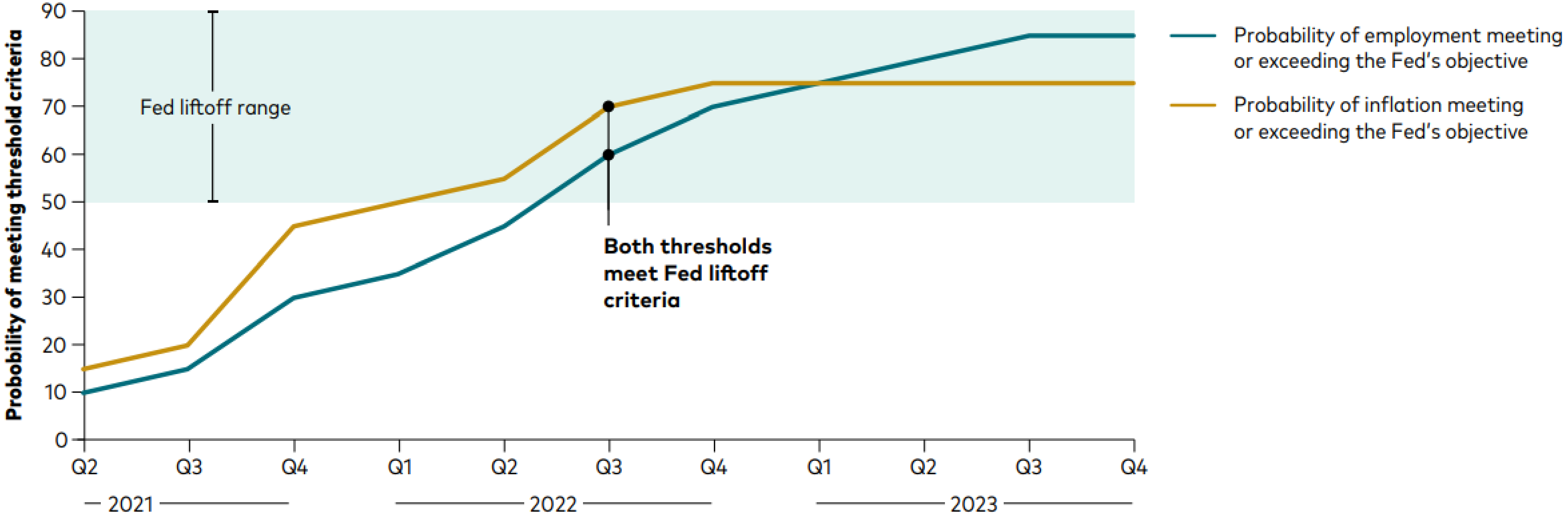
Note: Charts depict the price-level subcomponents of the personal consumption expenditures (PCE) index relative to their 2019 trend extrapolated forward.
Sources: Vanguard calculations, based on Refinitiv data.

Moderation in prices is expected, but elevated pressures to remain



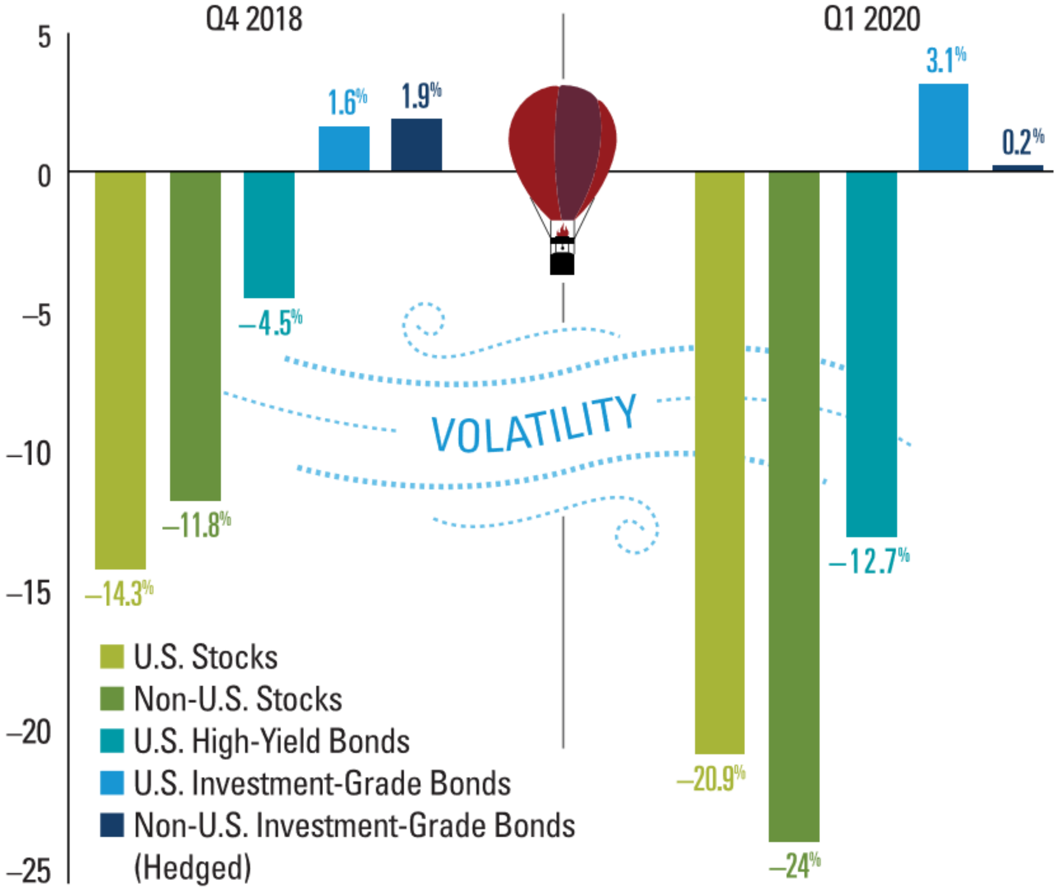
Note: Core PCE is the personal consumption expenditures price index, excluding food and energy.
Source: Vanguard.

Economy expected to meet liftoff conditions in the second half of 2022



Notes: Probabilities are derived from Vanguard baseline employment and core PCE forecasts. The full employment threshold is a combination of the labor-force-adjusted unemployment rate and the prime-age employment-to-population ratio within pre-COVID ranges. The inflation threshold is when the core PCE is equal to or greater than 2% and is forecast to persist for some time at such levels.
Source: Vanguard.

Bonds have provided additional ballast to equity allocations



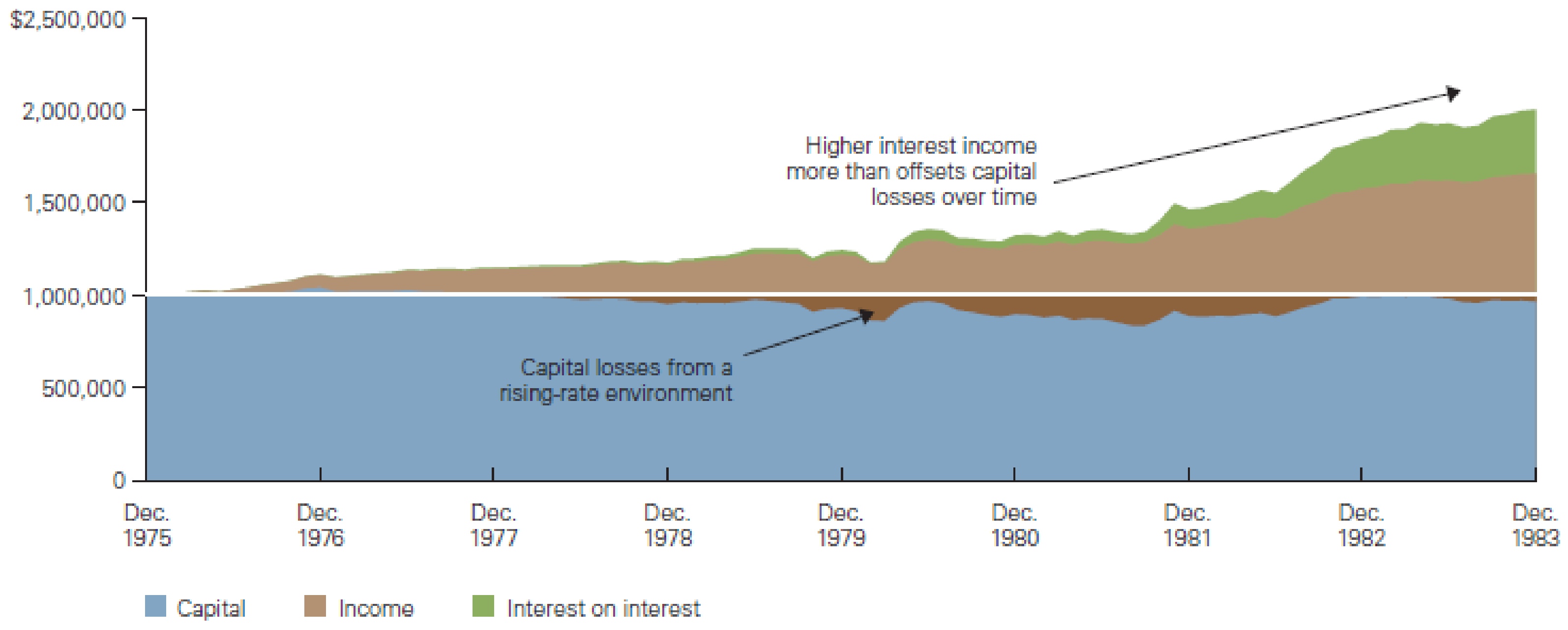
Past performance is no guarantee of future results. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Source: Vanguard. U.S. stocks represented by CRSP US Total Market Index. Non-U.S. stocks represented by FTSE Global All Cap ex US Index. U.S. investment-grade bonds represented by Bloomberg Barclays US Aggregate Bond Index. U.S. high-yield bonds represented by Bloomberg Barclays US Corporate High Yield Bond Index. Non-U.S. investment-grade bonds (hedged) represented by Bloomberg Barclays Global Aggregate ex-USD Float Adjusted RIC Capped Index (USD Hedged).

Interest income and reinvestment account for largest portion of total return in bond funds

Bond investing in the 1970s and early 1980s

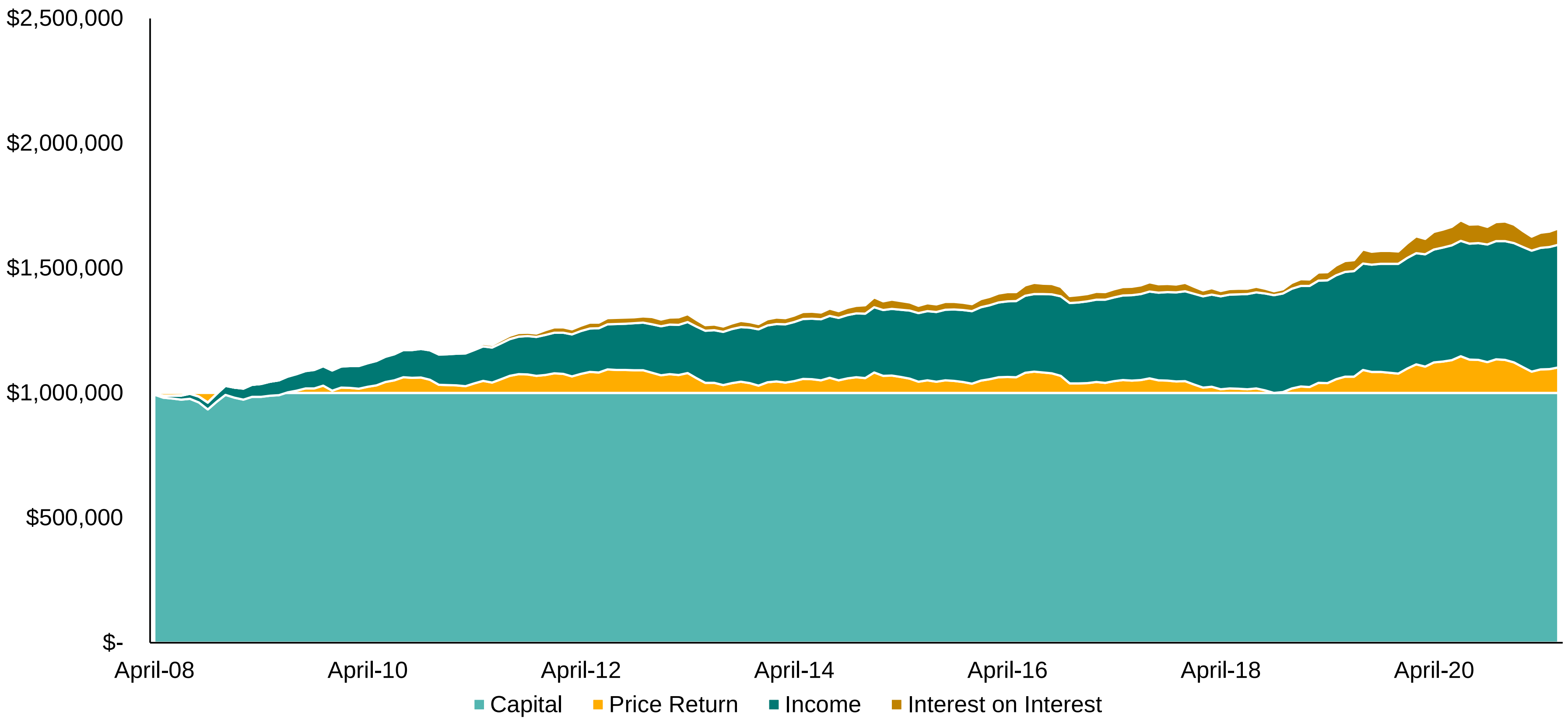
Growth of a $1 million investment in the Barclay's Capital U.S. Aggregate Bond Index, 1976–1983



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

Source: Vanguard calculations based on capital, income, and total return data reported by Barclay's Capital.
Notes: For this example, we assume that an investor fully funds a $1 million investment in the Barclay's Capital U.S. Aggregate Bond Index Index on January 1, 1976. We do not account for any expenses or taxes. Interest-on-interest return is calculated as the remainder after subtracting both income and capital returns from the total return.

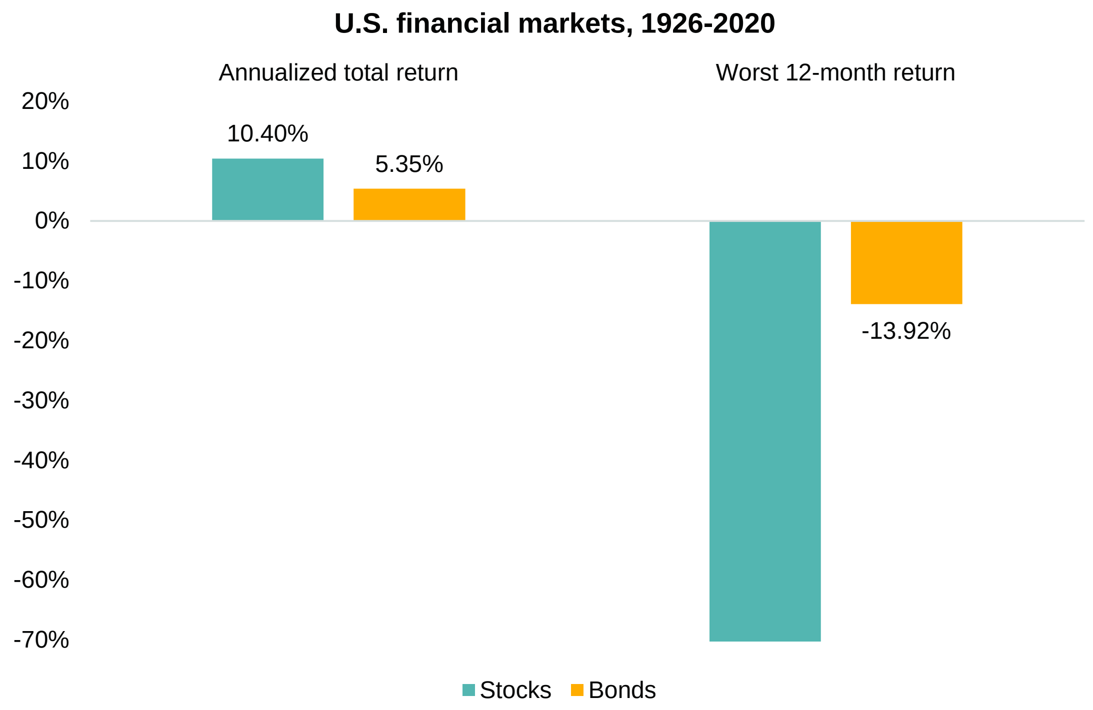
Bond investing in a low rate environment

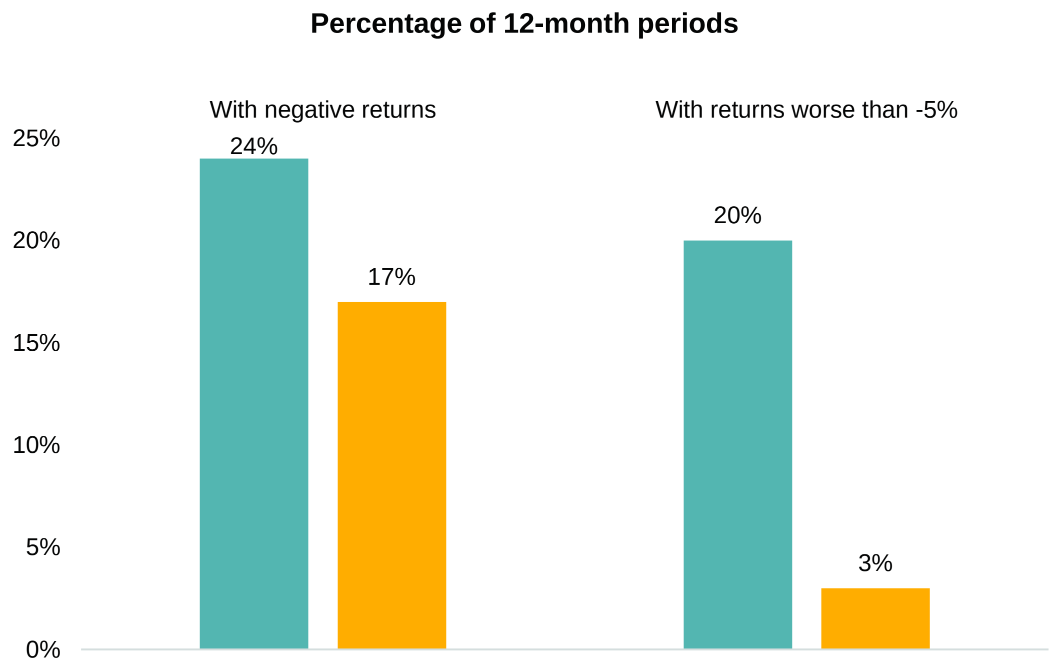


Past performance is no guarantee of future results. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index. The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at www.vanguard.com/performance.

Source: Vanguard. Data is through June 30, 2021.
Notes: For this example, we assume that an investor fully funds a $1 million investment in the Vanguard Total Bond Market Admiral Shares on April 1, 2008. Interest on interest calculated as the remainder after subtracting both income and price returns from the total return. Returns are net of expense ratio and assumes dividends are reinvested.

A bear market for bonds is nothing like a bear market for stocks





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.

The following indexes were used for U.S. stock market returns: Standard & Poor's 90 from 1926 through March 3, 1957; the Standard & Poor's 500 Index from March 4, 1957, through 1974; the Wilshire 5000 Index from 1975 through April 22, 2005; the MSCI US Broad Market Index from April 23, 2005, through June 2, 2013; and the CRSP US Total Market Index thereafter. U.S. bond market returns: the Standard & Poor's High Grade Corporate Index from 1926 to 1968, the Citigroup High Grade Index from 1969 to 1972, the Lehman Brothers U.S. Long Credit AA Index 1973 to 1975, the Barclays Capital U.S. Aggregate Bond Index from 1976 to 2009, and the Bloomberg Barclays U.S. Aggregate Float Adjusted Index thereafter.

Source: Vanguard calculations using data from S&P, MSCI, Citigroup, and Barclays as of December 31, 2020.

Summary – equities vs. inflation

1-year periods

Portfolio	Frequency of outperformance	Average Outperformance	# of Periods
US Equities Outperform CPI	75.0%	16.0%	605
CPI Outperforms US Equities	25.0%	14.4%	605
Non-US Equities Outperform CPI	61.5%	20.0%	605
CPI Outperforms Non-US Equities	38.5%	13.1%	605

3-year periods

Portfolio	Frequency of outperformance	Average Outperformance	# of Periods
US Equities Outperform CPI	75.9%	11.7%	581
CPI Outperforms US Equities	24.1%	7.1%	581
Non-US Equities Outperform CPI	67.1%	11.7%	581
CPI Outperforms Non-US Equities	32.9%	6.9%	581

5-year periods

Portfolio	Frequency of outperformance	Average Outperformance	# of Periods
US Equities Outperform CPI	72.9%	11.0%	557
CPI Outperforms US Equities	27.1%	3.3%	557
Non-US Equities Outperform CPI	70.2%	9.1%	557
CPI Outperforms Non-US Equities	29.8%	3.0%	557

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: Morningstar, FRED. Data as of 5/31/2021. All returns are annualized. US Equity represented by S&P 500 Index. Non-US Equity represented by MSCI EAFE Index through 4/30/1999, MSCI ACWI IMI Index thereafter. Inflation represented by Consumer Price Index for All Urban Customers. All investing is subject to risk.

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.

Important information

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

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

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

Investments in bond funds are subject to the risk that an issuer will fail to make payments on time and that bond prices will decline because of rising interest rates or negative perceptions of an issuer's ability to make payments. High-yield bonds generally have medium- and lower-range credit quality ratings and are therefore subject to a higher level of credit risk than bonds with higher credit quality ratings. Although the income from a municipal bond fund is exempt from federal tax, you may owe taxes on any capital gains realized through the fund's trading or through your own redemption of shares. For some investors, a portion of the fund's income may be subject to state and local taxes, as well as to the federal Alternative Minimum Tax. Diversification does not ensure a profit or protect against a loss.

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.

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Factor funds are subject to investment style risk, which is the chance that returns from the types of stocks in which the fund invests will trail returns from U.S. stock markets. Factor funds are subject to manager risk, which is the chance that poor security selection will cause the fund to underperform relevant benchmarks or other funds with a similar investment objective.

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Important information