Vanguard®

Vanguard®

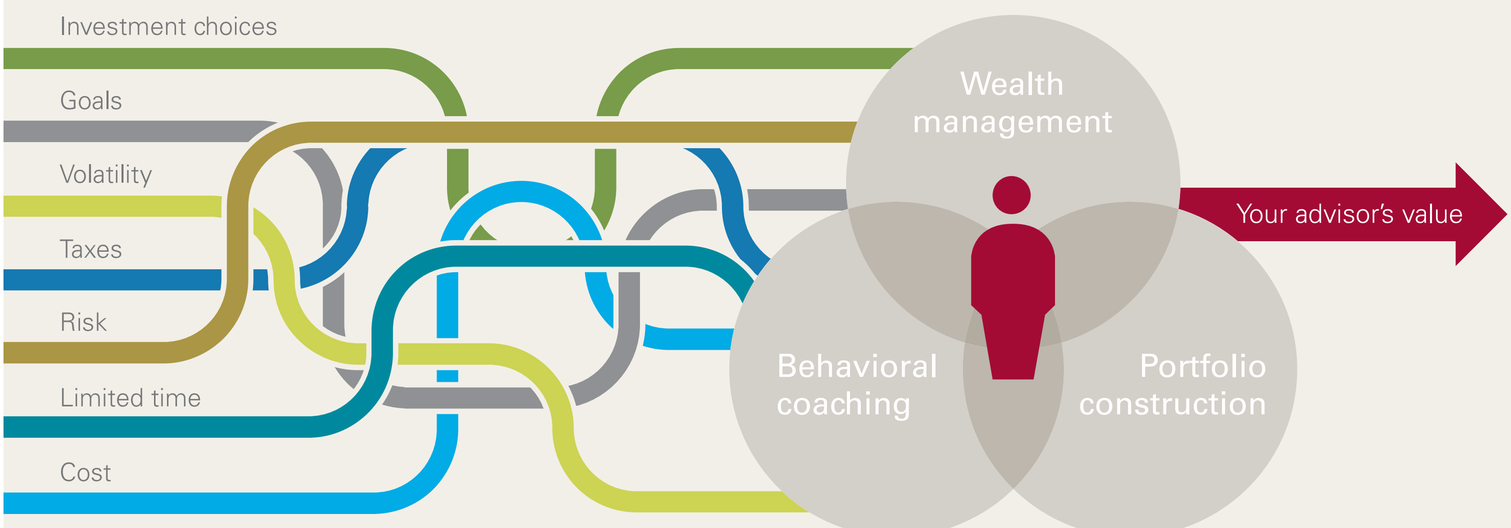
YOUR FINANCIAL ADVISOR

Bringing value through advice

Investor note

Your investment goals are personal

They're about taking care of your family, feeling secure, and being comfortable. And whether your goals include retirement planning, charitable giving, or transitioning wealth, selecting a professional advisor to help you is a critical decision for your financial future. You want to make sure you're getting real value. But how do you define the value of advice?



The benefits of professional advice

Vanguard research shows that an advisor who employs all the wealth management practices described in this investor note can add meaningful value compared with the average investor experience.[1]

For the average investor, capturing the real value from these practices has proved challenging and oftentimes counterintuitive. In many cases, you would require expert tax and financial planning experience. However, a professional advisor, using some or all the following strategies, can help capture a far greater share of the market's potential than you most likely could on your own.

1 Francis M. Kinniry Jr., Colleen M. Jaconetti, Michael A. DiJoseph, Yan Zilbering, and Donald G. Bennyhoff, 2019. *Putting a value on your value: Quantifying Vanguard Advisor's Alpha*®. Valley Forge, Pa.: The Vanguard Group.

Here are **3** areas in which an advisor can add meaningful value

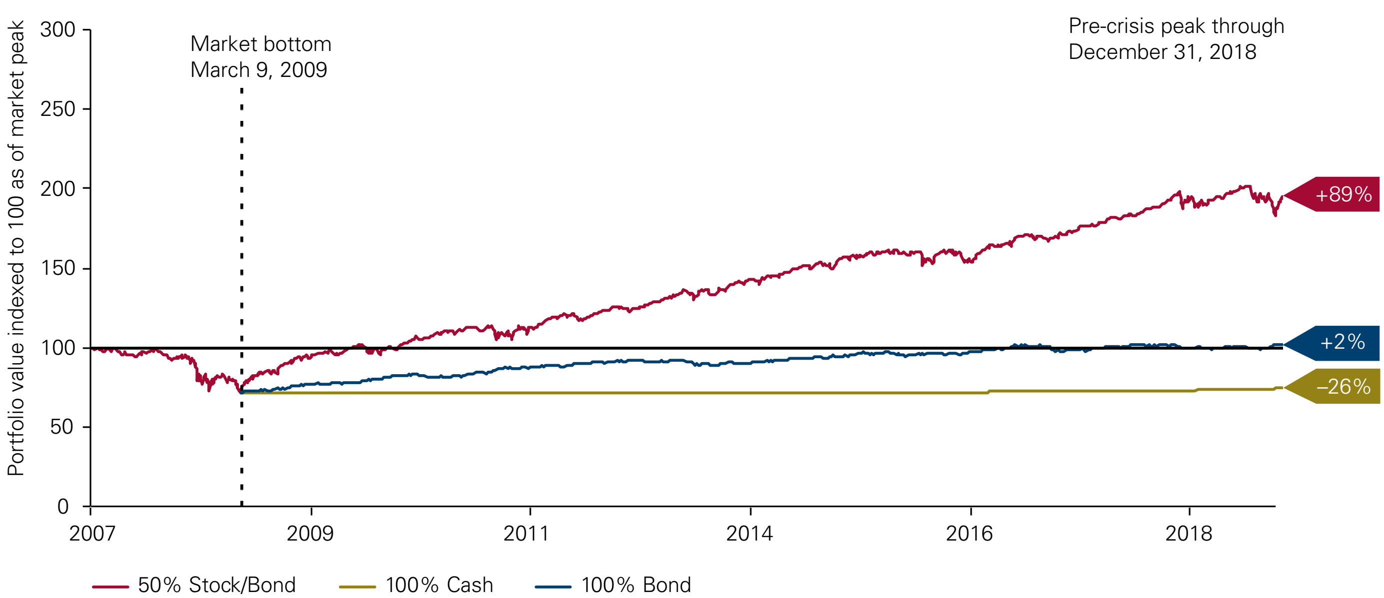
Although every advisor has the ability to add value, the extent of the benefit you'll receive depends on your particular financial situation and how many of these practices are employed.

1 Behavioral coaching

Investing evokes emotion, but your advisor can help you maintain a long-term perspective and a disciplined approach based on your investment plan. This practice alone is how your advisor can more than earn his or her advisory fee.

For example, consider three hypothetical investors, who took three different paths. As shown in the chart below, each had a 50% stock/50% bond portfolio during the downturn that ended in March 2009. One held tight and maintained the same portfolio, recouping the unrecognized losses in about a year and a half and enjoying the subsequent rebound in stocks. The other two radically revamped their portfolios, one moving all to bonds and the other all to cash. Roughly five years later, both of the latter portfolios continued to suffer the consequences, with their values remaining below their peaks.

Your financial advisor can help you avoid the pitfalls of trying to time the markets[1] by providing long-term perspective in periods of market volatility.



Source: FactSet.

Notes: The 50% stock/50% bond portfolio is represented by the Standard & Poor's 500 Index and the Bloomberg Barclays U.S. Aggregate Bond Index (rebalanced monthly). The 100% bond portfolio is represented by the Bloomberg Barclays U.S. Aggregate Bond Index. The 100% cash portfolio is represented by 3-month Treasury bills.

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.

This is a hypothetical illustration.

1 Francis M. Kinniry Jr., Colleen M. Jaconetti, Michael A. DiJoseph, Yan Zilbering, and Donald G. Bennyhoff, 2019. *Putting a value on your value: Quantifying Vanguard Advisor's Alpha®*. Valley Forge, Pa.: The Vanguard Group.

2 Portfolio construction

Your financial advisor can help you build and maintain a portfolio with a suitable mix of broadly diversified stock and bond funds, as well as cash investments. How those assets are allocated is based on your goals, investment time horizon, and tolerance for risk, among other factors. Your asset mix is the most important decision you'll make.[2]

Your advisor also can help your portfolio by structuring it in ways that are:

- **Cost-effective.** The selection of cost-effective investments is a critical component of every advisor's tool kit and is based on simple math: Every dollar paid for management fees, trading costs, and taxes is a dollar less of potential return for you.
- **Tax-efficient.** If you have both taxable and tax-advantaged accounts, your advisor can add value for you annually—with benefits that compound over longer periods—by strategically allocating your assets between the two account types.
- **Total-return-oriented.** A total-return approach to investing, which considers both income and capital appreciation, offers the potential benefits of less risk, better tax efficiency, and a longer portfolio life span than that of an income-centric approach.

3 Wealth management

Given the importance of selecting a suitable asset allocation, it's also vital to maintain that allocation. As your investments produce unequal returns over time, your portfolio can drift from its target allocation, acquiring risk-and-return traits that may be inconsistent with your circumstances. Your advisor can help you by periodically rebalancing your portfolio.

Tax considerations once again come into play when the time comes to start spending from your portfolio. Your advisor can implement tax-smart strategies for withdrawing funds from taxable, tax-deferred, and/or tax-exempt accounts. Doing so can help minimize the total taxes you pay over the course of your retirement, potentially increasing your wealth and the longevity of your portfolio.

The bottom line

With the sound strategies and tactics outlined in this investor note, your financial advisor can give you confidence that you're doing all you can to reach your goals. Your advisor can also potentially boost the performance of your portfolio compared with the average investor experience.

Get the complete research paper

Since 2001, Vanguard has been researching advisors' ability to create value for investors through relationship-oriented services, rather than by trying to outperform the market. Our Investment Strategy Group has quantified that value for each of seven distinct strategies. To get our complete research paper, simply contact your financial advisor or visit **advisors.vanguard.com/qadvisorvalue.**

2 *Vanguard's Principles for Investing Success,* 2017. Valley Forge, Pa.: The Vanguard Group.

Financial advisors: Visit advisors.vanguard.com or call 800-997-2798.

All investing is subject to risk, including possible loss of principal.

Diversification does not ensure a profit or protect against a loss.

There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income.

Vanguard Financial
Advisor Services™

P.O. Box 2900
Valley Forge, PA 19482-2900

FASQAABR 052019

INVESTOR EDUCATION

Market risk and reward

It's important to have realistic expectations about the trade-offs between risk and reward. A balanced, diversified portfolio can help reduce portfolio volatility. This table shows long-term average annual returns for various asset allocations between U.S. stocks and bonds, and the performance of those allocations during select equity bear and bull markets.

Asset allocation	Average annual return (1926–2019)	Inflation-adjusted average annual return (1926–2019)	Number of years with a loss (1926–2019)	Cumulative return 1973–1974▼	Cumulative return 3/31/2000–9/30/2002▼	Cumulative return 9/30/2002–12/31/2007▲	Cumulative return 12/31/2007–3/31/2009▼	Cumulative return 3/31/2009–12/31/2019▲
100% bonds	5.33%	2.39%	14 of 94	–4.82%	28.56%	26.12%	5.36%	53.19%
10% stocks and 90% bonds	5.99	3.03	12 of 94	–8.37	19.35	32.94	–0.52	74.81
20% stocks and 80% bonds	6.62	3.64	13 of 94	–11.85	10.61	40.04	–6.18	98.95
30% stocks and 70% bonds	7.21	4.22	15 of 94	–15.25	2.32	47.41	–11.60	125.83
40% stocks and 60% bonds	7.77	4.76	17 of 94	–18.58	–5.52	55.06	–16.81	155.65
50% stocks and 50% bonds	8.29	5.26	18 of 94	–21.84	–12.93	63.00	–21.81	188.65
60% stocks and 40% bonds	8.77	5.73	22 of 94	–25.04	–19.92	71.23	–26.59	225.04
70% stocks and 30% bonds	9.21	6.16	23 of 94	–28.16	–26.50	79.76	–31.18	265.05
80% stocks and 20% bonds	9.61	6.55	24 of 94	–31.21	–32.69	88.60	–35.57	308.90
90% stocks and 10% bonds	9.97	6.90	24 of 94	–34.20	–38.49	97.74	–39.76	356.78
100% stocks	10.29	7.22	26 of 94	–37.12	–43.92	107.20	–43.77	408.89
100% cash	3.39	0.50	1 of 94	15.49	10.25	16.08	1.84	5.84

Source: Vanguard, as of December 31, 2019.

▲ Bull market ▼ Bear market

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.

There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income.

When determining which index to use and for what period, we selected the index that we deemed to be a fair representation of the characteristics of the referenced market, given the information currently available. For U.S. stock market returns, we used the Standard & Poor's 90 Index from 1926 to March 3, 1957; the S&P 500 Index from March 4, 1957, through 1974; the Dow Jones Wilshire 5000 Index from 1975 to April 22, 2005; the MSCI US Broad Market Index from April 23, 2005, to June 2, 2013; and the CRSP US Total Market Index thereafter. For U.S. bond market returns, we used the S&P High Grade Corporate Index from 1926 through 1968, the Citigroup High Grade Index from 1969 through 1972, the Lehman Brothers U.S. Long Credit AA Index from 1973 through 1975, the Barclays U.S. Aggregate Bond Index from 1976 through 2009, and the Bloomberg Barclays U.S. Aggregate Float Adjusted Bond Index thereafter. For U.S. short-term returns, we used the Ibbotson U.S. 30-Day Treasury Bill Index from 1926 through 1977 and the Citigroup 3-Month U.S. Treasury Bill Index thereafter.

Vanguard®

Vanguard Financial
Advisor Services™

P.O. Box 2900
Valley Forge, PA 19482-2900

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.

Investment Products: Not FDIC Insured • No Bank Guarantee • May Lose Value

FAMRISKI 022020

SECOND QUARTER 2020

Strategic model portfolios

Quarterly update

Use the investment commentary and data here to gain context for recent performance and to understand our economic and market outlook.

The quarter in review: a bounce back

During the second quarter, the effects of lockdowns and social-distancing requirements put in place to control the spread of COVID-19 caused a sharp slowdown in economic activity and a spike in unemployment rates worldwide. However, global stocks surprised investors by regaining almost all their first-quarter pandemic-related losses. Highly accommodative monetary policies and unprecedented fiscal-policy support buoyed investors, along with falling rates of new COVID-19 infections in some countries that were hit hard early on.

In the U.S., the backdrop was mixed. New coronavirus cases began ticking up in June, but more states began easing restrictions. Unemployment fell even though it remained in the double digits, and the manufacturing and housing sectors showed tentative signs of firming. A number of U.S. stock indexes posted their best quarterly performances in decades. Mid-capitalization stocks outpaced small- and large-caps, and growth stocks again outperformed value.

International and U.S. bonds

The overall U.S. fixed income market returned 3% for the quarter, thanks largely to the performance of longer-dated and especially lower-rated bonds. The yield of the bellwether 10-year U.S. Treasury note finished the quarter little changed at 0.7%. Although the return for bonds outside the U.S. was even a little stronger, some softening in the greenback meant they returned slightly less on a USD-hedged basis. Emerging markets bonds performed especially well given investors' greater appetite for risk.

Asset classes at a glance[1]

	Average return
U.S. equities	22.1%
U.S. bonds	3.0%
International equities	17.0%
International bonds	2.3%

As of June 30, 2020.

1 Returns are in U.S. dollars. Benchmarks referenced: U.S. equities, CRSP US Total Market Index; U.S. bonds, Bloomberg Barclays U.S. Aggregate Float Adjusted Index; international equities, FTSE Global All Cap ex US Index; international bonds, Bloomberg Barclays Global Aggregate ex-USD Float Adjusted RIC Capped Index (USD Hedged).

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.

Performance drivers and detractors[2]

The performance of our models was driven mostly by exposure to the U.S. stock market, which returned +22.1%, and to international stocks, which returned +17.1%. The consumer discretionary (+37.8%) and information technology (IT) (+31.8%) sectors contributed the most to U.S. equities' performance.

International equities were also strongly positive, across both emerging markets (+19.0%) and developed markets (+15.6%) indexes. As in the U.S., the IT (+28.2%) and consumer discretionary (18.4%) sectors contributed the most to performance.

U.S. long-term lower-quality bonds rebounded the most, with U.S. government and mortgage-backed returns trailing.

International fixed income performance was led by a rebound in emerging market bonds, followed by international aggregate bonds.

U.S. equities

- ➕ Mid-cap growth (+30.3%) and small-cap growth (+30.6%) made the greatest contribution to performance, followed closely by large-cap growth (+27.8%).
- ➖ Large-cap value (+14.3%) continued to lag the broad U.S. equity market.

U.S. bonds

- ➕ Long-term lower-quality bonds rebounded the most.
- ➖ Although still slightly positive, government securities (+0.5%) and mortgage-backed securities (+0.6%) contributed the least to the models' fixed income performance.

International equities

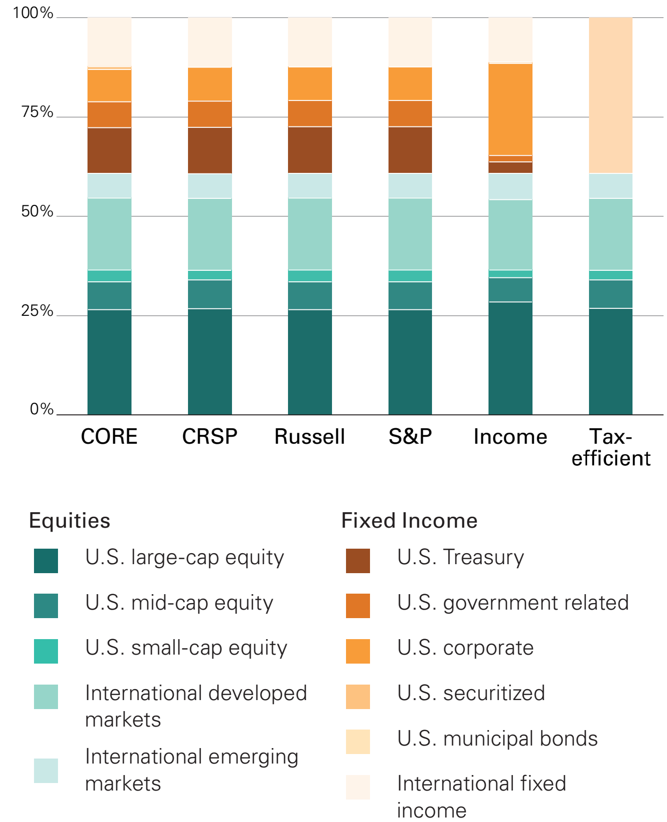
- ➕ Emerging markets returned +19.0%, rebounding more strongly than developed markets (+15.6%).
- ➖ The energy (+5.2%), real estate (+8.9%), and utilities (+12.5%) sectors contributed the least to the international equities' performance.

International bonds

- ➕ Performance was led by rebounds in emerging markets bonds (+11.2%), followed by international aggregate bonds (+4.4%).

2 Benchmarks referenced: U.S. stocks, CRSP US Total Market Index; U.S. bonds, Bloomberg Barclays U.S. Aggregate Float Adjusted Index; international stocks, FTSE Global All Cap ex US Index; international bonds, Bloomberg Barclays Global Aggregate ex-USD Float Adjusted RIC Capped Index (USD Hedged); U.S. consumer discretionary, MSCI US IMI Consumer Discretionary 25/50 Index; U.S. information technology, MSCI US IMI Information Technology 25/50 Index; international emerging markets, FTSE Emerging Markets All-Cap China A Inclusion Index; international developed markets, FTSE Developed ex-North America Index; international information technology, MSCI World ex-US Information Technology Index; international consumer discretionary, MSCI World ex-US Consumer Discretionary Index.

Sub-asset allocation by category



Colored bars indicate allocation of sub-asset classes within each series' portfolio, for a 60% equity/40% fixed income blend.

The weights for each model portfolio were determined using prior month product-level characteristic data and current month strategic allocations by product according to the "as-of" date provided, whereby a weighted average calculation is then applied in order to derive the sub-asset allocation percentage listed. Sub-asset allocations by category are provided for informational purposes only and are not intended to be utilized for constructing portfolios. Because of rounding, weights may not add up to 100%.

Source: Vanguard.

Allocations are as of June 30, 2020.

Looking ahead: The Vanguard view

The U.S. economy officially entered into a recession in February, likely the deepest economic contraction on record. But we expect the recession to be short-lived (possibly the shortest ever). And there are already signs that economic activity is picking up. Vanguard's outlook for 2020 includes a U.S. economic contraction in the range of 7% to 9% and for a second-quarter contraction as deep as 30% to 40%. But while significant risks remain, our economists expect a positive economic growth rate in the third quarter and potentially a double-digit growth rate in the second half of the year. In our view, the unemployment rate should fall to around 10% by year-end.

The Federal Reserve announced in June that it expected to keep the target federal funds rate near zero at least through 2022. The Fed acknowledged, however, that further monetary policy action—as well as additional fiscal response by Congress—may be necessary to shepherd the U.S. economy through the coronavirus pandemic.

Globally, Vanguard expects central banks to keep monetary policy accommodative for the foreseeable future because economies face additional contraction and job losses, and inflation isn't an immediate threat.

China may return to positive economic growth as soon as the second quarter, which is earlier than we had expected. However, Vanguard hasn't changed its full-year outlook for China's economy to grow in a range of 1% to 3%, however, because we expect a greater external demand shock for China's export industries in the second half of the year.

Japan has weathered the coronavirus pandemic better than many countries. But the cost of containment there was two straight months of contraction in the first quarter. We expect the Japanese economy will experience an 8% contraction in the second quarter. Look for a moderate rebound in the third and fourth quarters amid stronger-than-expected pandemic-related stimulus.

The euro area economy contracted 3.8% in the first quarter, the most ever recorded, and we expect to see a –20% second quarter before recovery begins. We were surprised, positively, by the European Union's fiscal response to the pandemic. Our outlook for the euro area economy to contract 11% to 13% in 2020 is unchanged. We think the United Kingdom faces an increased risk of a second wave of COVID-19 infections, and we continue to foresee a full-year contraction for the U.K. economy in the range of 8% to 10%.

For Vanguard's 10-year U.S. asset class forecasts, and additional insights into fast-moving developments, visit investornews.vanguard.

Our portfolios have a long-term orientation.

Our models are fundamentally strategic vehicles, and our target allocations are the product of a long-term risk/reward assessment comprised of many inputs.

In addition to its work throughout the year, our management team conducts a deep-dive analysis and full revalidation of the entire design and construction of the model portfolios at least once each year.

The hurdle rate for change is high: The benefit of any refinement must be clear, demonstrable, and enduring. Constant debate does not lead to constant change.

Portfolio oversight starts with our Strategic Asset Allocation committee, which oversees:

- Investment and economic research
- Product management and oversight
- Institutional and retail clients' needs in local markets
- Global behavioral finance
- Portfolio management and execution

Model portfolio returns

As of June 30, 2020

Core Series

Growth	3 Mo.	YTD	Returns (annualized) 1 Yr.	3 Yr.	5 Yr.	10 Yr.
100% Equity—0% Fixed income	20.10%	–6.12%	2.24%	6.39%	6.90%	—
90% Equity—10% Fixed income	18.28	–4.88	2.95	6.40	6.74	—
80% Equity—20% Fixed income	16.48	–3.67	3.62	6.38	6.56	—
70% Equity—30% Fixed income	14.70	–2.48	4.26	6.34	6.36	—
Balanced						
60% Equity—40% Fixed income	12.93	–1.32	4.83	6.26	6.13	—
50% Equity—50% Fixed income	11.17	–0.19	5.37	6.15	5.88	—
40% Equity—60% Fixed income	9.44	0.92	5.86	6.01	5.60	—
Income						
30% Equity—70% Fixed income	7.71	1.99	6.30	5.84	5.30	—
20% Equity—80% Fixed income	6.01	3.05	6.70	5.66	4.99	—
10% Equity—90% Fixed income	4.32	4.06	7.05	5.43	4.65	—
0% Equity—100% Fixed income	2.65	5.05	7.36	5.18	4.29	—

CRSP Series

Growth	3 Mo.	YTD	Returns (annualized) 1 Yr.	3 Yr.	5 Yr.	10 Yr.
100% Equity—0% Fixed income	19.99%	–6.02%	2.36%	6.46%	6.95%	10.66%
90% Equity—10% Fixed income	18.19	–4.78	3.09	6.47	6.79	—
80% Equity—20% Fixed income	16.39	–3.59	3.73	6.43	6.59	9.43
70% Equity—30% Fixed income	14.62	–2.41	4.35	6.39	6.39	—
Balanced						
60% Equity—40% Fixed income	12.86	–1.26	4.92	6.30	6.16	8.13
50% Equity—50% Fixed income	11.11	–0.13	5.46	6.19	5.90	—
40% Equity—60% Fixed income	9.39	0.98	5.94	6.04	5.62	6.76
Income						
30% Equity—70% Fixed income	7.67	2.05	6.38	5.87	5.32	—
20% Equity—80% Fixed income	5.97	3.08	6.76	5.67	5.00	5.30
10% Equity—90% Fixed income	4.29	4.08	7.09	5.44	4.66	—
0% Equity—100% Fixed income	2.62	5.06	7.40	5.18	4.29	3.79

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so an investor's shares, when sold, may be worth more or less than their original cost. Current performance may be higher or lower than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. Performance of the model components are based on net asset value (NAV) return and assumes a semi-annual rebalance from January 2010 through December 2012, a quarterly rebalance from January 2013 through December 2013, and monthly rebalance thereafter. Performance figures assume the reinvestment of dividends and capital gains distributions; the figures are pre-tax and net of expenses of the underlying funds. Performance figures for periods of less than one year are cumulative returns.

Model portfolio returns

As of June 30, 2020

Income Series

	3 Mo.	YTD	Returns (annualized) 1 Yr.	3 Yr.	5 Yr.	10 Yr.
100% Equity—0% Fixed income	14.66%	–13.27%	–6.23%	—	—	—
90% Equity—10% Fixed income	13.72	–11.52	–4.77	—	—	—
80% Equity—20% Fixed income	12.80	–9.77	–3.32	—	—	—
70% Equity—30% Fixed income	11.88	–8.01	–1.89	—	—	—
60% Equity—40% Fixed income	10.96	–6.25	–0.47	—	—	—
50% Equity—50% Fixed income	10.04	–4.49	0.92	—	—	—
40% Equity—60% Fixed income	9.14	–2.72	2.31	—	—	—
30% Equity—70% Fixed income	8.23	–0.94	3.67	—	—	—
20% Equity—80% Fixed income	7.33	0.83	5.02	—	—	—
10% Equity—90% Fixed income	6.42	2.61	6.34	—	—	—
0% Equity—100% Fixed income	5.53	4.38	7.64	—	—	—

Russell Series

			Returns (annualized)			
Growth	**3 Mo.**	**YTD**	**1 Yr.**	**3 Yr.**	**5 Yr.**	**10 Yr.**
100% Equity—0% Fixed income	20.01%	–6.14%	2.29%	6.36%	6.85%	—
90% Equity—10% Fixed income	18.20	–4.89	3.02	6.38	6.70	—
80% Equity—20% Fixed income	16.40	–3.69	3.66	6.35	6.51	—
70% Equity—30% Fixed income	14.63	–2.49	4.31	6.32	6.32	—
Balanced						
60% Equity—40% Fixed income	12.87	–1.32	4.89	6.25	6.10	—
50% Equity—50% Fixed income	11.12	–0.20	5.42	6.14	5.85	—
40% Equity—60% Fixed income	9.39	0.93	5.91	6.01	5.59	—
Income						
30% Equity—70% Fixed income	7.67	2.00	6.35	5.83	5.29	—
20% Equity—80% Fixed income	5.98	3.06	6.75	5.65	4.99	—
10% Equity—90% Fixed income	4.29	4.06	7.08	5.42	4.65	—
0% Equity—100% Fixed income	2.62	5.06	7.40	5.18	4.29	—

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so an investor's shares, when sold, may be worth more or less than their original cost. Current performance may be higher or lower than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. Performance of the model components are based on net asset value (NAV) return and assumes a semi-annual rebalance from January 2010 through December 2012, a quarterly rebalance from January 2013 through December 2013, and monthly rebalance thereafter. Performance figures assume the reinvestment of dividends and capital gains distributions; the figures are pre-tax and net of expenses of the underlying funds. Performance figures for periods of less than one year are cumulative returns.

Model portfolio returns

As of June 30, 2020

S&P Series

Growth	3 Mo.	YTD	Returns (annualized) 1 Yr.	3 Yr.	5 Yr.	10 Yr.
100% Equity—0% Fixed income	20.06%	–6.14%	2.26%	6.36%	6.88%	—
90% Equity—10% Fixed income	18.25	–4.89	2.99	6.38	6.73	—
80% Equity—20% Fixed income	16.44	–3.68	3.64	6.35	6.54	—
70% Equity—30% Fixed income	14.67	–2.49	4.29	6.32	6.35	—
Balanced						
60% Equity—40% Fixed income	12.90	–1.32	4.87	6.24	6.12	—
50% Equity—50% Fixed income	11.14	–0.19	5.41	6.14	5.87	—
40% Equity—60% Fixed income	9.41	0.92	5.89	6.00	5.60	—
Income						
30% Equity—70% Fixed income	7.68	2.00	6.34	5.84	5.30	—
20% Equity—80% Fixed income	5.98	3.06	6.74	5.65	4.99	—
10% Equity—90% Fixed income	4.30	4.07	7.08	5.42	4.65	—
0% Equity—100% Fixed income	2.62	5.06	7.40	5.18	4.29	—

Tax-Efficient Series

	3 Mo.	YTD	Returns (annualized) 1 Yr.	3 Yr.	5 Yr.	10 Yr.
90% Equity—10% Fixed income	18.19%	–5.07%	2.76%	6.34%	—	—
80% Equity—20% Fixed income	16.39	–4.17	3.09	6.19	—	—
70% Equity—30% Fixed income	14.60	–3.29	3.39	6.01	—	—
60% Equity—40% Fixed income	12.83	–2.44	3.63	5.81	—	—
50% Equity—50% Fixed income	11.06	–1.62	3.85	5.58	—	—
40% Equity—60% Fixed income	9.31	–0.82	4.02	5.32	—	—
30% Equity—70% Fixed income	7.56	–0.06	4.15	5.03	—	—
20% Equity—80% Fixed income	5.84	0.66	4.22	4.72	—	—
10% Equity—90% Fixed income	4.12	1.36	4.26	4.38	—	—

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so an investor's shares, when sold, may be worth more or less than their original cost. Current performance may be higher or lower than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. Performance of the model components are based on net asset value (NAV) return and assumes a semi-annual rebalance from January 2010 through December 2012, a quarterly rebalance from January 2013 through December 2013, and monthly rebalance thereafter. Performance figures assume the reinvestment of dividends and capital gains distributions; the figures are pre-tax and net of expenses of the underlying funds. Performance figures for periods of less than one year are cumulative returns.

Underlying ETF fund returns

As of June 30, 2020

						Returns (annualized)					
Vanguard ETF	**Ticker**		**Expense ratio[1]**	**Quarter**	**YTD**	**1 Yr.**	**3 Yr.**	**5 Yr.**	**10 Yr.**	**Since inception**	**Inception date**
U.S. equity											
Total Stock Market	VTI	NAV	0.03%	22.09%	–3.41%	6.44%	10.04%	10.02%	13.73%	7.21%	5/24/01
		Market Price	0.03	22.06	–3.39	6.47	10.03	10.02	13.74	7.21	5/24/01
Growth	VUG	NAV	0.04	29.04	11.30	24.77	18.05	14.93	16.78	10.11	1/26/04
		Market Price	0.04	29.07	11.34	24.83	18.05	14.93	16.78	10.11	1/26/04
Value	VTV	NAV	0.04	12.74	–15.48	–7.48	3.88	6.44	11.22	7.08	1/26/04
		Market Price	0.04	12.82	–15.42	–7.40	3.88	6.45	11.23	7.08	1/26/04
S&P 500	VOO	NAV	0.03	20.54	–3.12	7.45	10.69	10.69	—	13.52	9/7/10
		Market Price	0.03	20.55	–3.10	7.51	10.69	10.68	—	13.52	9/7/10
Small-Cap	VB	NAV	0.05	26.66	–11.44	–5.62	3.99	5.40	11.59	8.18	1/26/04
		Market Price	0.05	26.86	–11.42	–5.55	4.00	5.40	11.60	8.18	1/26/04
High Dividend Yield	VYM	NAV	0.06	12.54	–14.42	–6.58	3.59	6.56	11.81	6.65	11/10/06
		Market Price	0.06	12.65	–14.36	–6.52	3.60	6.56	11.81	6.65	11/10/06
Extended Market	VXF	NAV	0.06	31.14	–5.58	1.16	6.42	6.76	12.36	8.99	12/27/01
		Market Price	0.06	31.29	–5.57	1.24	6.44	6.76	12.36	8.99	12/27/01
Russell 1000 Growth	VONG	NAV	0.08	27.81	9.74	23.16	18.88	15.77	—	16.14	9/20/10
		Market Price	0.08	27.92	9.78	23.27	18.89	15.76	—	16.15	9/20/10
Russell 1000 Value	VONV	NAV	0.08	14.28	–16.31	–8.90	1.76	4.53	—	9.37	9/20/10
		Market Price	0.08	14.36	–16.24	–8.80	1.76	4.52	—	9.37	9/20/10
Russell 2000	VTWO	NAV	0.10	25.44	–12.94	–6.55	2.07	4.33	—	9.66	9/20/10
		Market Price	0.10	25.84	–12.90	–6.39	2.09	4.32	—	9.66	9/20/10
International equity											
Total Intl Stock	VXUS	NAV	0.08%	18.12%	–10.58%	–4.05%	1.12%	2.44%	—	2.83%	1/26/11
		Market Price	0.08	17.34	–10.95	–4.34	0.96	2.37	—	2.80	1/26/11
FTSE Developed Mkts	VEA	NAV	0.05	17.45	–10.75	–4.26	0.90	2.48	6.10%	1.11	7/20/07
		Market Price	0.05	16.96	–11.05	–4.46	0.77	2.46	6.13	1.07	7/20/07
FTSE AW ex-US Small-CAP[2]	VSS	NAV	0.11	24.10	–12.74	–5.29	–0.81	1.83	5.50	8.58	4/2/09
		Market Price	0.11	23.42	–13.09	–5.84	–1.05	1.72	5.52	8.53	4/2/09
FTSE Emerging Markets	VWO	NAV	0.10	19.90	–9.53	–2.89	2.14	2.18	3.15	5.64	3/4/05
		Market Price	0.10	18.65	–10.37	–3.75	1.82	2.10	3.13	5.58	3/4/05
FTSE AW ex-US Sm-Cap	VSS	NAV	0.11	24.10	–12.74	–5.29	–0.81	1.83	5.50	8.58	4/2/09
		Market Price	0.11	23.42	–13.09	–5.84	–1.05	1.72	5.52	8.53	4/2/09

1 As reported in each ETF's most recent prospectus as of June 30, 2020. The current expense ratio may be higher or lower than the figure shown.

2 Vanguard FTSE All-World ex-US Small-Cap ETF (VSS) was removed from the CRSP, Russell, and S&P series of the model portfolios effective December 31, 2015. The performance of VSS through that date is embedded in historical model portfolio performance.

The performance data shown represent past performance, which is not a guarantee of future results, and reflects the performance of the underlying products that comprise our strategies and our investment allocation methodology.

Investment returns and principal value will fluctuate, so an investor's ETF shares, when sold, may be worth more or less than their original cost. Current performance may be higher or lower than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. Performance of the model ETF components is based on net asset value (NAV) return and assumes a semiannual rebalance from January 2010 through December 2012, a quarterly rebalance from January 2013 through December 2013, and a monthly rebalance thereafter. Performance figures assume the reinvestment of dividends and capital gains distributions; the figures are pre-tax and net of expenses. All figures are for periods ended June 30, 2020. Performance figures for periods of less than one year are cumulative returns.

Underlying ETF fund returns

As of June 30, 2020

Vanguard ETF	Ticker		Expense ratio[1]	Quarter	YTD	Returns (annualized) 1 Yr.	3 Yr.	5 Yr.	10 Yr.	Since inception	Inception date
U.S. bonds											
Total Bond Market	BND	NAV	0.035%	2.93%	6.35%	8.96%	5.35%	4.33%	3.77%	4.51%	4/3/07
		Market Price	0.035	3.34	6.42	9.12	5.40	4.38	3.78	4.53	4/3/07
Total Corporate Bond	VTC	NAV	0.05	8.57	4.95	9.42	—	—	—	6.39	11/7/17
		Market Price	0.05	8.43	5.05	9.57	—	—	—	6.45	11/7/17
Short-Term Bond	BSV	NAV	0.05	1.78	3.99	5.41	3.44	2.57	2.13	3.00	4/3/07
		Market Price	0.05	1.64	4.04	5.48	3.46	2.58	2.12	3.01	4/3/07
Inter-Term Bond	BIV	NAV	0.05	4.61	7.83	10.34	6.19	5.01	4.79	5.56	4/3/07
		Market Price	0.05	4.87	7.97	10.57	6.22	5.06	4.78	5.57	4/3/07
Long-Term Bond	BLV	NAV	0.05	6.34	13.06	19.10	10.28	9.00	7.79	7.91	4/3/07
		Market Price	0.05	6.06	13.25	19.50	10.39	9.16	7.77	7.94	4/3/07
Mortgage-Backed Sec	VMBS	NAV	0.05	0.17	3.38	5.63	3.80	3.06	2.93	3.10	11/19/09
		Market Price	0.05	0.31	3.25	5.51	3.74	3.06	2.92	3.09	11/19/09
Tax-Exempt Bond	VTEB	NAV	0.06	2.46	2.04	4.30	4.05	—	—	3.68	8/21/15
		Market Price	0.06	2.90	2.03	4.33	4.10	—	—	3.69	8/21/15
International bonds											
Tot Intl Bond	BNDX	NAV	0.08%	2.17%	2.35%	4.06%	4.99%	4.42%	—	4.20%	5/31/13
		Market Price	0.08	2.86	2.43	4.10	4.99	4.43	—	4.24	5/31/13
Intl High Div Yld	VYMI	NAV	0.27	13.95	–18.25	–13.20	–2.67	—	—	4.29	2/25/16
		Market Price	0.27	14.14	–18.48	–13.43	–2.82	—	—	4.28	2/25/16

1 As reported in each ETF's most recent prospectus as of June 30, 2020. The current expense ratio may be higher or lower than the figure shown.

The performance data shown represent past performance, which is not a guarantee of future results, and reflects the performance of the underlying products that comprise our strategies and our investment allocation methodology.

Investment returns and principal value will fluctuate, so an investor's ETF shares, when sold, may be worth more or less than their original cost. Current performance may be higher or lower than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance. Performance of the model ETF components is based on net asset value (NAV) return and assumes a semiannual rebalance from January 2010 through December 2012, a quarterly rebalance from January 2013 through December 2013, and a monthly rebalance thereafter. Performance figures assume the reinvestment of dividends and capital gains distributions; the figures are pre-tax and net of expenses. All figures are for periods ended June 30, 2020. Performance figures for periods of less than one year are cumulative returns.

Vanguard ETF® strategic model portfolios

Investment strategy

The Vanguard total return model portfolios seek to provide broad exposure to U.S. and international equities and U.S. and international investment-grade[1] taxable bonds in an asset allocation framework.

Portfolio construction

The Vanguard model portfolios are strategic and index-centric by nature. Within the broad asset classes, the portfolios are market-capitalization-weighted and reflect their benchmarks' investment style and size exposures.

With the exception of our Income Series, there are no intentional tactical overlays or factor bets (size or style) within the asset classes. With the exception of our Tax-Efficient Series, the portfolios use a fixed 60%/40% ratio of U.S. and international stocks and a fixed 70%/30% ratio of U.S. and international bonds, representing a conscious "home bias" relative to global market-cap-weighted benchmarks.

Some of our models use multiple ETFs to capture the beta of a single asset class, such as U.S. equities as represented by the CRSP U.S. Total Market Index). However, the risk and return characteristics should not meaningfully deviate from those of the asset-class benchmarks.

Additional portfolio construction considerations

- Income Series: The Income Series follows the same portfolio construction strategy but also incorporates an allocation to ETFs that invest in common stocks of companies across the globe characterized by high dividend yields and a broadly diversified exposure to the investment-grade U.S. corporate bond market. There is a 25% allocation to the global core and a 75% tilt to higher-income-producing securities. These models target higher income generation than their total-return model counterparts.

- Tax-Efficient Series: The Tax-Efficient Series also follows the equity methodology, but the entire fixed income allocations of the series use an ETF that has a broadly diversified exposure to the investment-grade U.S. municipal bond market. This series targets a higher level of tax efficiency than its total-return model counterparts.

A straightforward and transparent design that provides the industry's broadest global diversification[2]

89%	13	45+	19,000+
global liquid market coverage	**sub-asset classes**	**countries**	**securities**

As of December 31, 2019.

Equities	
U.S. large-cap	✓
U.S. mid-cap	✓
U.S. small-cap	✓
International developed markets	✓
International emerging markets	✓

Fixed income	
U.S. Treasury	✓
U.S. government related	✓
U.S. corporate	✓
U.S. securitized	✓
U.S. short term (0–5 years)	✓
U.S. intermediate term (5–10 years)	✓
U.S. long term (10+ years)	✓
International fixed income	✓

1 A bond whose credit quality is considered to be among the highest by independent bond-rating agencies.

2 The broadest global diversification is determined by comparing the global liquid market coverage across model portfolio providers.

Source: Bloomberg, December 31, 2019.

The benefits of diversification

Strategic exposure to different markets with low correlation can reduce the variability of returns. The chart uses the ranked returns of eight broad market sectors to show the challenge of making short-term tactical adjustments in pursuit of the next hot sector.

Investment returns ranked by performance

Annual returns								2020 (second quarter) monthly returns			
2012	2013	2014	2015	2016	2017	2018	2019	April	May	June	YTD
Real Estate 27.73%	Small-Cap Equity 38.82%	Real Estate 15.20%	Large-Cap Equity 1.38%	Small-Cap Equity 21.31%	Emerging Market Equity 37.28%	U.S. Fixed Income 0.01%	Large-Cap Equity 31.49%	Small-Cap Equity 13.74	Small-Cap Equity 6.51%	Emerging Market Equity 7.40%	U.S. Fixed Income 6.14%
Emerging Market Equity 18.23%	Large-Cap Equity 32.39%	Large-Cap Equity 13.69%	U.S. Fixed Income 0.55%	High Yield 17.13%	Dev ex-U.S. Equity 24.21%	High Yield –2.08%	Small-Cap Equity 25.52%	Large-Cap Equity 12.82%	High Yield 5.10%	Small-Cap Equity 3.53%	Global ex-U.S. Fixed Income 0.99%
Dev ex-U.S. Equity 16.41%	Dev ex-U.S. Equity 21.02%	U.S. Fixed Income 5.97%	Real Estate –0.79%	Large-Cap Equity 11.96%	Large-Cap Equity 21.83%	Global ex-U.S. Fixed Income –2.15%	Dev ex-U.S. Equity 22.49%	Emerging Market Equity 9.18%	Large-Cap Equity 4.76%	Dev ex-U.S. Equity 3.47%	Large-Cap Equity –3.08%
Small-Cap Equity 16.35%	High Yield 7.44%	Small-Cap Equity 4.89%	Dev ex-U.S. Equity –3.04%	Emerging Market Equity 11.19%	Small-Cap Equity 14.65%	Large-Cap Equity –4.38%	Real Estate 21.91%	Real Estate 7.12%	Dev ex-U.S. Equity 4.32%	Real Estate 2.70%	High Yield –4.66%
Large-Cap Equity 16.00%	Real Estate 3.67%	High Yield 2.45%	Small-Cap Equity –4.41%	Real Estate 4.06%	Global ex-U.S. Fixed Income 10.51%	Real Estate –5.63%	Emerging Market Equity 18.44%	Dev ex-U.S. Equity 7.06%	Emerging Market Equity 0.79%	High Yield 2.28%	Emerging Market Equity –9.67%
High Yield 15.81%	U.S. Fixed Income –2.02%	Emerging Market Equity –2.19%	High Yield –4.47%	Dev ex-U.S. Equity 2.75%	Real Estate 10.36%	Small-Cap Equity –11.01%	High Yield 14.32%	High Yield 4.37%	Global ex-U.S. Fixed Income 0.48%	Large-Cap Equity 1.99%	Dev ex-U.S. Equity –11.20%
U.S. Fixed Income 4.21%	Emerging Market Equity –2.60%	Global ex-U.S. Fixed Income –3.08%	Global ex-U.S. Fixed Income –6.02%	U.S. Fixed Income 2.65%	High Yield 7.50%	Dev ex-U.S. Equity –14.09%	U.S. Fixed Income 8.72%	Global ex-U.S. Fixed Income 2.06%	U.S. Fixed Income 0.47%	Global ex-U.S. Fixed Income 1.04%	Small-Cap Equity –12.98%
Global ex-U.S. Fixed Income 4.09%	Global ex-U.S. Fixed Income –3.08%	Dev ex-U.S. Equity –4.32%	Emerging Market Equity –14.92%	Global ex-U.S. Fixed Income 1.49%	U.S. Fixed Income 3.54%	Emerging Market Equity –14.57%	Global ex-U.S. Fixed Income 5.09%	U.S. Fixed Income 1.78%	Real Estate 0.29%	U.S. Fixed Income 0.63%	Real Estate –20.93%

- Large-Cap Equity (S&P 500 Index)
- Small-Cap Equity (Russell 2000 Index)
- Developed ex-U.S. Equity (MSCI World ex-U.S. Index)
- Emerging Market Equity (MSCI Emerging Markets Index)
- U.S. Fixed Income (Bloomberg Barclays U.S. Aggregate Bond Index)
- Global ex-U.S. Fixed Income (Bloomberg Barclays Global Aggregate ex-US Bond Index)
- High Yield (Bloomberg Barclays Global High Yield Bond Index)
- Real Estate (FTSE/EPRA Nareit Developed REIT Index)

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 and Factset, as of June 30, 2020.

How we manage model portfolios

Vanguard model portfolios take a strategic approach to investing. They offer consistently broad diversification, including exposure in balanced portfolios to more than 19,000 stocks and bonds worldwide.

Our approach starts with broad asset-class exposure to U.S. and international equities and U.S. and international investment-grade bonds in a strategic, index-centric framework.

Portfolio construction reflects a market-cap-weighted approach, with exposure to size and style determined by the benchmark.

Our ETF portfolios pursue no tactical overlays or factor bets within their asset classes. Our portfolio sub-asset allocations also employ a fixed 60%/40% ratio of U.S. and international stocks, as well as a 70%/30% ratio of U.S. and international bonds, which reflects a deliberate "home bias" relative to global market-cap-weighted benchmarks.

Risk management

Risk is primarily determined and managed through the asset allocations and extremely broad diversification of the portfolios. There is no active management or security selection involved.

Return expectations

Because the underlying funds are index funds and the portfolios do not incorporate active or tactical allocation shifts, the returns of each portfolio should very closely approximate those of their benchmarks.

Index-oriented, strategically allocated strategies historically have been very tax-efficient, which may enhance a taxable investor's after-tax returns. These strategies have also tended to be lower-cost relative to comparable actively managed investment alternatives. Research has shown a negative correlation between cost and returns, whereby lower-cost funds have tended to deliver higher longer-term returns relative to higher-cost funds.[1] This potential for higher returns due to the models' low relative cost may benefit both taxable and tax-exempt investors.

1 Source: Cerulli Associates, 2019. *U.S. Managed Accounts 2019: The Challenge of New Platforms.* Boston, Mass.: Cerulli Associates. (Cerulli Report Series.)

The experience of an industry leader

Vanguard's deep expertise in both portfolio construction and asset allocation is the result of its history of designing products with the long term in mind almost since it began operations in 1975.

10+
years' experience as a strategist

$20.8B
managed accounts assets under management

As of December 31, 2019.

Lower return variability

Vanguard ETF strategic model portfolios seek returns in line with those of their respective benchmarks, giving you more control over your exposure to risk.

Broad exposure

Vanguard ETF strategic model portfolios provide a high level of diversification through broad exposure to domestic and international markets.

The power of low costs

We've driven down investment costs and kept them low. The exceptionally low expense ratios of Vanguard ETFs produce powerful advantages for investors.

Low costs mean that investors can keep more of our ETFs' investment returns.

Connect with Vanguard® • advisors.vanguard.com • 800-997-2798

For more information about Vanguard funds or Vanguard ETFs, contact your financial advisor 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.

All investing is subject to risk, including the possible loss of principal.

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.

Vanguard does not, and will not, make any representations about whether a model portfolio is in the best interest of any investor, is not, and will not be, responsible for the determination of whether a model portfolio is in the best interest of any investor, and is not acting as an investment advisor to any investor.

Model performance results are hypothetical and may have inherent limitations, some of which are noted here. No representation is being made that any account will or is likely to achieve profits or losses similar to those shown. There are numerous other factors related to the markets in general or to the implementation of any specific trading strategy which cannot be fully accounted for in the preparation of model performance results and all of which can adversely affect actual trading results.

All investments are subject to risk, including the possible loss of the money you invest. 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. It is possible that the funds will not meet their objective of being tax-efficient. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income. Diversification does not ensure a profit or protect against a loss.

Center for Research in Security Prices, LLC (CRSP®) and its third-party suppliers have exclusive proprietary rights in the CRSP® Index Data, which has been licensed for use by Vanguard but is and shall remain valuable intellectual property owned by, and/or licensed to, CRSP®. The Vanguard Funds are not sponsored, endorsed, sold or promoted by CRSP®, The University of Chicago, The University of Chicago Booth School of Business, and CRSP® make no representations regarding the advisability of investing in the Vanguard Funds.

The S&P 500 is a product of S&P Dow Jones Indices LLC, a division of S&P Global, or its affiliates ("SPDJI"), and has been licensed for use by Vanguard. Standard & Poor's®, and S&P® are registered trademarks of Standard & Poor's Financial Services LLC, a division of S&P Global ("S&P"); Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"); and these trademarks have been licensed for use by SPDJI and sublicensed for certain purposes by Vanguard. Vanguard's S&P 500 is not sponsored, endorsed, sold or promoted by SPDJI, Dow Jones, S&P, their respective affiliates, and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability for any errors, omissions, or interruptions of the S&P 500.

London Stock Exchange Group companies include FTSE International Limited ("FTSE"), Frank Russell Company ("Russell"), MTS Next Limited ("MTS") and FTSE TMX Global Debt Capital Markets Inc. ("FTSE TMX"). All rights reserved. "FTSE®", "Russell®", "MTS®", "FTSE TMX®" and "FTSE Russell" and other service marks and trademarks related to the FTSE or Russell indexes are trademarks of the London Stock Exchange Group companies and are used by FTSE, MTS, FTSE TMX and Russell under licence. All information is provided for information purposes only. No responsibility or liability can be accepted by the London Stock Exchange Group companies nor its licensors for any errors or for any loss from use of this publication. Neither the London Stock Exchange Group companies nor any of its licensors make any claim, prediction, warranty or representation whatsoever, expressly or impliedly, either as to the results to be obtained from the use of the FTSE Indexes or the fitness or suitability of the Indexes for any particular purpose to which they might be put.

BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. BARCLAYS® is a trademark and service mark of Barclays Bank Plc, used under license. Bloomberg Finance L.P. and its affiliates, including Bloomberg Index Services Limited ("BISL") (collectively, "Bloomberg"), or Bloomberg's licensors own all proprietary rights in the Bloomberg Barclays Indices.

The products are not sponsored, endorsed, issued, sold or promoted by "Bloomberg or Barclays". Bloomberg and Barclays make no representation or warranty, express or implied, to the owners or purchasers of the products or any member of the public regarding the advisability of investing in securities generally or in the products particularly or the ability of the Bloomberg Barclays Indices to track general bond market performance. Neither Bloomberg nor Barclays has passed on the legality or suitability of the products with respect to any person or entity. Bloomberg's only relationship to Vanguard and the products are the licensing of the Bloomberg Barclays Indices which are determined, composed and calculated by BISL without regard to Vanguard or the products or any owners or purchasers of the products. Bloomberg has no obligation to take the needs of the products or the owners of the products into consideration in determining, composing or calculating the Bloomberg Barclays Indices. Neither Bloomberg nor Barclays is responsible for and has not participated in the determination of the timing of, prices at, or quantities of the products to be issued. Neither Bloomberg nor Barclays has any obligation or liability in connection with the administration, marketing or trading of the products.

Vanguard®

U.S. Patent Nos. 6,879,964; 7,337,138; 7,720,749; 7,925,573; 8,090,646; 8,417,623; and 8,626,636.
Vanguard Marketing Corporation, Distributor.

FASMPCEN 082020

Investment Products: Not a Deposit • Not FDIC Insured • Not Guaranteed by the Bank • May Lose Value • Not Insured by Any Federal Government Agency