



# Model portfolio commentary

2nd Quarter 2017

## Strategist commentary on model portfolios

Recent expense ratio reductions for many Vanguard ETFs® and mutual funds have pushed the all-in cost of Vanguard model portfolios even lower. During the second quarter, the weighted average expense ratios for our Core Series have decreased from a range of 0.07% to 0.08% to only 0.07% for all increments. The weighted average expense ratios for our Russell Series have decreased from a range of 0.09% to 0.11% to a range of 0.08% to 0.10%. In addition, the weighted average expense ratios for our CRSP Series have decreased to a range of 0.07% to 0.08%, while our S&P Series have decreased to a range of 0.06% to 0.08%. These most recent reductions are a result of decreased expense ratios for eleven of the ETFs included across our model portfolios lineup.

Vanguard continues its long history of reducing costs, not in response to competitor moves, but to deliver value to the clients we serve.

## Market overview

International stocks outperformed their U.S. counterparts over the second quarter. This was particularly true for the developed markets of Europe, which benefited from strong economic growth, accommodative monetary policies, and improved political stability. The election of centrist Emmanuel Macron in the French presidential election was seen as a vote of confidence in the European Union, even as there were continuing concerns about the effect of Brexit on the region's economies. The FTSE All-World Developed ex North America Index returned 6.4%, while the FTSE All-World Emerging Index returned 4.0% in U.S. dollars.

Stock prices in the United States continued their upward trend during the second quarter, despite intensified political risk, the possibility of tighter monetary policy, and the stalling of some of the Administration's promised reforms. Volatility was generally muted. The Federal Reserve's gradual short-term interest rate increases and its plans to reduce its balance sheet didn't disrupt markets. CRSP US Large Growth Index returned 4.7% for the quarter while the CRSP US Total Market Index was slightly behind at 3.0%.

The yield of the benchmark 10-year U.S. Treasury note closed the quarter at 2.31%, down from 2.40% at the end of the first quarter of 2017. In addition, the Bloomberg Barclays U.S. Aggregate Float Adjusted Index returned 1.49% for the quarter and -0.33% for the 12 months ended June 30. Corporate bonds outpaced Treasuries as credit spreads tightened.

The Fed's decision in June to raise the federal funds target rate by a quarter percentage point, to a range of 1.00%–1.25%, was its fourth increase since the end of 2015 and the second in 2017. In announcing the change, Fed Chair Janet Yellen noted the economy's resilience. Keep in mind that higher rates, if they were to occur, could actually be a benefit for long-term investors as they allow for reinvestment of maturing bonds and cash flows at higher rates.

## The Vanguard view

Whenever Federal Reserve policymakers raise interest rates, the decision inevitably draws plenty of investor attention. But rate hikes aren't the only aspect of Fed policy with significance for investors.

As the Fed continues to move forward with monetary policy normalization, its scope of action is likely to widen to include the sensitive task of lightening its balance sheet, a \$4.5 trillion portfolio of U.S. Treasuries and mortgage-backed securities.

We would expect the impact on markets from the Fed's trimming its balance sheet to be relatively small and frontloaded, occurring largely when the announcement is made. However, the markets' reaction this time should be mitigated by the groundwork the Fed has laid in communicating its intentions. For clients, the message remains the same: look past short-term volatility and adhere to long-term investment strategies.

## Vanguard ETF strategic model portfolios

### Investment strategy

The Vanguard model portfolios seek to provide broad exposure to U.S. and international equities and global investment-grade 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 (U.S. and international equities, U.S. and international investment-grade bonds), the portfolios are market-cap weighted and will reflect their benchmarks' investment style and security size exposures.

There are no intentional tactical overlays or factor bets (size or style) within the asset classes. The portfolios use a fixed 60%/40% ratio of U.S. and international stocks, as well as a 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 (e.g., U.S. equities as represented by the CRSP US Total Market Index). However, the risk and return characteristics should not meaningfully deviate from those of the asset-class 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

As the underlying funds are index funds and the portfolios do not incorporate active or tactical allocation shifts, the returns from each portfolio should very closely approximate those for the 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 comparably 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.<sup>1</sup> This potential for higher returns due to the models' low relative cost may benefit both taxable and tax-exempt investors.

<sup>1</sup> Research demonstrating a negative correlation between investment cost and returns has been extensive. Consider, for example:

Wallick, Daniel W., Brian R. Wimmer, and James J. Balsamo, 2015. *Shopping for alpha: You get what you don't pay for*. Valley Forge, Pa.: The Vanguard Group.

Phillips, Christopher B., and Francis M. Kinniry Jr., Daniel J. Walker, 2013. *Mutual Fund Ratings and Future Performance*. Valley Forge, Pa.: The Vanguard Group.

Financial Research Corporation, 2002. *Predicting Mutual Fund Performance II: After the Bear*. Boston, Mass.: Financial Research Corporation.

Whatever your asset allocation needs or your benchmark preferences, there is a market-weighted model portfolio available. In addition, with Vanguard ETF strategic model portfolios, you can benefit from Vanguard's remarkably low costs, deep indexing experience, stringent due diligence, and trusted name.

### About Vanguard Investment Strategy Group

In addition to constructing our ETF strategic model portfolios, the Investment Strategy Group is responsible for developing and maintaining Vanguard's investment methodology, including asset allocation modeling.

## Index performance as of 06/30/2017

U.S. equity						
CRSP	3 Mo.	Returns (annualized over 1 year)				
		YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
US Total Market Index	3.0%	9.0%	18.5%	9.1%	14.6%	—
US Large Cap Growth Index	4.7	14.8	20.2	10.2	—	—
US Large Cap Value Index	1.8	5.2	16.5	8.8	—	—
US Small Cap Index	1.9	5.8	19.1	6.8	14.3	—
S&P	3 Mo.	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
500 Index	3.1%	9.3%	17.9%	9.6%	14.6%	7.2%
Completion Index	2.6	7.3	21.5	6.8	14.2	7.6
Russell	3 Mo.	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
1000 Growth Index	4.7%	14.0%	20.4%	11.1%	15.3%	8.9%
1000 Value Index	1.3	4.7	15.5	7.4	13.9	5.6
2000 Index	2.5	5.0	24.6	7.4	13.7	6.9

International equity						
FTSE	3 Mo.	Returns (annualized over 1 year)				
		YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Global All Cap ex US Index	5.8%	14.3%	20.8%	1.7%	8.1%	1.9%
All-World Developed ex North America Index	6.4	14.5	21.1	1.6	8.8	1.3
All-World Emerging Index	4.0	14.6	20.2	1.1	3.9	2.0

U.S. fixed income						
Bloomberg Barclays	3 Mo.	Returns (annualized over 1 year)				
		YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
U.S. Agg Float Adj Index	1.5%	2.4%	-0.3%	2.5%	2.2%	—
U.S. 1-5 Yr Gov/Cr Flt Adj Index	0.6	1.1	0.1	1.3	1.3	—
U.S. 5-10 Yr Gov/Cr Flt Adj Index	1.7	2.9	-0.8	3.1	2.7	5.6%
U.S. Long Gov/Cr Flt Adj Index	4.4	6.0	-1.1	5.3	4.3	7.6
U.S. MBS Float Adj Index	0.8	1.3	0.0	2.1	2.0	—

International fixed income						
Bloomberg Barclays	3 Mo.	Returns (annualized over 1 year)				
		YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
GA ex-USD FIAj RIC CplxHgd	0.7%	0.7%	-0.5%	3.8%	—	—

Source: FactSet and Vanguard.

## Portfolio construction team

The Investment Strategy Group is led by Vanguard Chief Economist Joe Davis and includes more than 30 strategists and analysts providing thought leadership in asset allocation, portfolio construction, and ETFs.

**Joe Davis, Ph.D.**, is a principal and global head of Vanguard Investment Strategy Group, whose investment research and client-facing team conducts research on portfolio construction, develops the firm's economic and market outlook, and helps oversee the firm's asset allocation strategies for both institutional and individual investors. In addition, he is a member of the senior portfolio management team for Vanguard Fixed Income Group. Joe frequently presents at investment symposiums and has published studies on a variety of macro-economic and investment topics in leading academic journals. He earned his Ph.D. in economics at Duke University.

**Fran Kinniry, CFA**, is a principal in Vanguard Investment Strategy Group, whose primary responsibilities are capital market research, portfolio design, development and implementation of customized investment solutions, investment market commentary, and research. The group's proprietary research on investment, economic, and portfolio management issues has been published in leading academic and practitioner journals. Fran and his group also are responsible for establishing the investment philosophy, methodology, and portfolio construction strategies for Vanguard. He initiated Vanguard Investment Counseling & Research and Vanguard Asset Management and Advisory Services. Fran is a Chartered Financial Analyst® charterholder and earned bachelor's and M.B.A. degrees from Drexel University.

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**For more information about 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 about a fund 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.*

All investments are subject to risk, including the possible loss of the money you invest. 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. Past performance is no guarantee of future returns. Diversification does not ensure a profit or protect against a loss.

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**Scott J. Donaldson, CFA, CFP**, is a senior investment strategist in Vanguard Investment Strategy Group. This group is responsible for establishing the investment philosophy, methodology, and portfolio construction strategies for Vanguard. The group is also responsible for Vanguard's proprietary research on a variety of investment, economic, and portfolio management issues. Previously, Scott served as an investment manager for clients of Vanguard Asset Management Services™. He has more than 25 years of experience in the investment management industry and earned an M.B.A. from Saint Joseph's University.



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