

CRSP

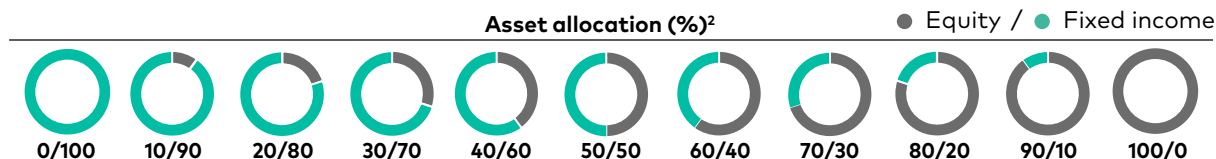
The Center for Research in Security Prices (CRSP) index series

A total-return model series serving up broad-market global equities and fixed income exposure, with the U.S. equities component using ETFs built around CRSP indexes.

- Broad-market equity and investment-grade¹ fixed income exposure, encompassing more than 26,000 global stocks and bonds.
- Diversified index investments that can help alleviate active manager risk in portfolios through lower return variability and low turnover.
- ETFs for potential tax efficiency, transparency, and low costs.
- Remarkably low costs, with weighted average expense ratios at 0.05%, enabling investors to keep more of their returns.
- Vanguard's 45+ years of experience in portfolio construction and indexing.

Strategic asset allocation by product

As of December 31, 2024



VANGUARD ETF	TICKER	EXPENSE RATIO ³	0/100	10/90	20/80	30/70	40/60	50/50	60/40	70/30	80/20	90/10	100/0
Domestic equity													
Growth	VUG	0.04%	0.0%	3.0%	6.0%	8.9%	11.9%	14.9%	17.9%	20.8%	23.8%	26.8%	29.8%
Value	VTV	0.04%	0.0%	2.3%	4.5%	6.8%	9.0%	11.3%	13.6%	15.8%	18.1%	20.4%	22.6%
Small-Cap	VB	0.05%	0.0%	0.6%	1.3%	1.9%	2.6%	3.2%	3.8%	4.6%	5.1%	5.7%	6.4%
International equity													
FTSE Developed Markets	VEA	0.06%	0.0%	2.8%	5.7%	8.5%	11.3%	14.1%	17.0%	19.8%	22.6%	25.4%	28.3%
FTSE Emerging Markets	VWO	0.08%	0.0%	1.1%	2.1%	3.3%	4.4%	5.5%	6.5%	7.6%	8.8%	9.9%	10.9%
Domestic fixed income													
Short-Term Bond	BSV	0.04%	28.0%	25.2%	22.4%	19.6%	16.8%	14.0%	11.2%	8.4%	5.6%	2.8%	0.0%
Inter-Term Bond	BIV	0.04%	13.5%	12.1%	10.8%	9.4%	8.1%	6.7%	5.4%	4.0%	2.7%	1.3%	0.0%
Long-Term Bond	BLV	0.04%	13.2%	11.9%	10.6%	9.3%	8.0%	6.6%	5.2%	4.0%	2.6%	1.4%	0.0%
Mortgage-Backed Sec	VMBS	0.04%	13.9%	12.5%	11.1%	9.7%	8.3%	7.0%	5.6%	4.2%	2.8%	1.4%	0.0%
International fixed income													
Total International Bond	BNDX	0.07%	29.4%	26.5%	23.5%	20.6%	17.6%	14.7%	11.8%	8.8%	5.9%	2.9%	0.0%
Money market													
Federal Money Market Fund	VMFXX	0.11%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Weighted average expense ratio			0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%

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

2 The weights were determined based on market characteristics, Vanguard philosophy, and the availability of the funds in the Vanguard lineup. Some of the investable universe may be lost when moving from a broad fund to a group of narrower funds. Portfolio weights were determined by dividing the market value of the underlying benchmark by the total market value of all the underlying benchmarks within the asset group. Because of rounding, weights may not add up to 100%.

3 As reported in each ETF's most recent prospectus as of December 31, 2024. The current expense ratio may be higher or lower than the figure shown.

Source: Vanguard calculations using data from FactSet.

Sub-asset allocation by category

As of December 31, 2024

	Asset allocation (%) ¹										
	0/100	10/90	20/80	30/70	40/60	50/50	60/40	70/30	80/20	90/10	100/0
Domestic equity											
Equity—U.S. large-cap	0.0%	4.4%	8.8%	13.2%	17.6%	22.0%	26.4%	30.7%	35.2%	39.6%	44.0%
Equity—U.S. mid-cap	0.0%	1.1%	2.3%	3.4%	4.5%	5.7%	6.8%	8.0%	9.1%	10.2%	11.3%
Equity—U.S. small-cap	0.0%	0.3%	0.7%	1.0%	1.4%	1.7%	2.1%	2.5%	2.8%	3.1%	3.5%
International equity											
Equity—Intl. developed markets	0.0%	2.8%	5.7%	8.5%	11.2%	14.0%	16.9%	19.7%	22.5%	25.3%	28.2%
Equity—Intl. emerging markets	0.0%	1.1%	2.1%	3.3%	4.5%	5.6%	6.6%	7.7%	8.9%	10.0%	11.0%
Domestic fixed income											
Fixed income—U.S. Treasury	33.4%	30.1%	26.8%	23.4%	20.1%	16.7%	13.3%	10.0%	6.7%	3.4%	0.0%
Fixed income—U.S. government-related	13.9%	12.5%	11.1%	9.7%	8.3%	7.0%	5.6%	4.2%	2.8%	1.4%	0.0%
Fixed income—U.S. corporate	18.5%	16.6%	14.8%	12.9%	11.1%	9.2%	7.3%	5.5%	3.7%	1.9%	0.0%
Fixed income—U.S. securitized	1.6%	1.4%	1.2%	1.1%	0.9%	0.8%	0.6%	0.5%	0.3%	0.2%	0.0%
Fixed income—Other	0.7%	0.7%	0.6%	0.5%	0.4%	0.4%	0.3%	0.2%	0.1%	0.1%	0.0%
International fixed income											
Fixed income—International	29.9%	27.0%	23.9%	21.0%	17.9%	15.0%	12.0%	9.0%	6.0%	3.0%	0.0%
Money market fund											
	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

¹ 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.

Hypothetical model portfolio performance*

As of December 31, 2024

		0/100	10/90	20/80	30/70	40/60	50/50	60/40	70/30	80/20	90/10	100/0
Quarter	Gross	-2.05%	-1.98%	-1.91%	-1.85%	-1.79%	-1.72%	-1.65%	-1.58%	-1.53%	-1.47%	-1.41%
	Net advisory fee	-2.80%	-2.73%	-2.66%	-2.60%	-2.54%	-2.47%	-2.40%	-2.33%	-2.28%	-2.22%	-2.16%
Year-to-date	Gross	2.05%	3.39%	4.73%	6.08%	7.44%	8.83%	10.22%	11.62%	13.03%	14.44%	15.89%
	Net advisory fee	-0.95%	0.39%	1.73%	3.08%	4.44%	5.83%	7.22%	8.62%	10.03%	11.44%	12.89%
1 year	Gross	2.05%	3.39%	4.73%	6.08%	7.44%	8.83%	10.22%	11.62%	13.03%	14.44%	15.89%
	Net advisory fee	-0.95%	0.39%	1.73%	3.08%	4.44%	5.83%	7.22%	8.62%	10.03%	11.44%	12.89%
3 year	Annualized gross	-1.74%	-1.02%	-0.30%	0.39%	1.10%	1.80%	2.48%	3.16%	3.82%	4.47%	5.12%
	Annualized net advisory fee	-4.74%	-4.02%	-3.30%	-2.61%	-1.90%	-1.20%	-0.52%	0.16%	0.82%	1.47%	2.12%
5 year	Annualized gross	-0.13%	0.94%	2.00%	3.03%	4.07%	5.08%	6.08%	7.08%	8.05%	9.01%	9.95%
	Annualized net advisory fee	-3.13%	-2.06%	-1.00%	0.03%	1.07%	2.08%	3.08%	4.08%	5.05%	6.01%	6.95%
10 year	Annualized gross	1.52%	2.37%	3.21%	4.04%	4.85%	5.66%	6.44%	7.22%	7.97%	8.72%	9.45%
	Annualized net advisory fee	-1.48%	-0.63%	0.21%	1.04%	1.85%	2.66%	3.44%	4.22%	4.97%	5.72%	6.45%
Since inception	Annualized gross	2.46%	2.75%	4.16%	4.28%	5.80%	5.76%	7.37%	8.41%	8.89%	8.56%	10.34%
	Annualized net advisory fee	-0.54%	-0.25%	1.16%	1.28%	2.80%	2.76%	4.37%	5.41%	5.89%	5.56%	7.34%
Inception date		1/1/2010	1/1/2014	1/1/2010	1/1/2014	1/1/2010	1/1/2014	1/1/2010	1/1/2012	1/1/2010	1/1/2014	1/1/2010

The performance data shown represent hypothetical 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. Actual performance may be higher or lower than the performance data cited. Performance of the model ETF 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 a 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. All figures are for periods ended December 31, 2024, except where noted. Performance figures for periods of less than one year are cumulative returns. Gross/Net performance results: Performance results labeled gross reflect model performance before the deduction of advisory program fees. Performance results labeled net reflect performance after the deduction of a proxy fee rate of 3%. The actual advisory fee rate applicable to an investment in this model may differ from the maximum program fee rate.

Source: Vanguard.

Underlying fund performance

As of December 31, 2024

VANGUARD ETF	TICKER	EXPENSE RATIO ¹		QUARTER	YEAR-TO-DATE	Annualized				SINCE INCEPTION	INCEPTION DATE
						1 YEAR	3 YEAR	5 YEAR	10 YEAR		
Growth	VUG	0.04%	NAV	6.97%	32.68%	32.68%	9.20%	18.36%	15.76%	11.71%	1/26/2004
			Market price	7.04%	32.64%	32.64%	9.21%	18.37%	15.76%	11.71%	
Value	VTV	0.04%	NAV	-2.51%	16.00%	16.00%	7.48%	9.93%	10.00%	8.80%	1/26/2004
			Market price	-2.46%	15.94%	15.94%	7.48%	9.93%	10.00%	8.80%	
Small-Cap	VB	0.05%	NAV	1.66%	14.23%	14.23%	3.62%	9.30%	9.09%	9.28%	1/26/2004
			Market price	1.67%	14.13%	14.13%	3.61%	9.29%	9.09%	9.28%	
FTSE Developed Markets	VEA	0.06%	NAV	-8.13%	3.07%	3.07%	0.91%	4.79%	5.49%	2.85%	7/20/2007
			Market price	-8.09%	3.10%	3.10%	0.97%	4.77%	5.49%	2.84%	
FTSE Emerging Markets	VWO	0.08%	NAV	-5.39%	11.01%	11.01%	-0.07%	3.05%	4.04%	5.66%	3/4/2005
			Market price	-5.75%	10.57%	10.57%	-0.30%	2.92%	3.99%	5.63%	
FTSE AW ex-US Small-Cap ²	VSS	0.08%	NAV	-7.40%	2.67%	2.67%	-2.31%	3.32%	4.72%	8.09%	4/2/2009
			Market price	-7.09%	2.88%	2.88%	-2.23%	3.38%	4.75%	8.10%	
Short-Term Bond	BSV	0.04%	NAV	-0.71%	3.75%	3.75%	0.93%	1.27%	1.61%	2.37%	4/3/2007
			Market price	-0.62%	3.79%	3.79%	0.96%	1.28%	1.61%	2.37%	
Inter-Term Bond	BIV	0.04%	NAV	-3.39%	1.49%	1.49%	-2.25%	0.03%	1.77%	3.69%	4/3/2007
			Market price	-3.41%	1.55%	1.55%	-2.21%	0.02%	1.75%	3.68%	
Long-Term Bond	BLV	0.04%	NAV	-7.47%	-4.09%	-4.09%	-9.11%	-3.21%	0.98%	4.15%	4/3/2007
			Market price	-7.60%	-4.05%	-4.05%	-9.03%	-3.28%	0.92%	4.14%	
Mortgage-Backed Sec	VMBS	0.04%	NAV	-2.98%	1.43%	1.43%	-1.96%	-0.71%	0.85%	1.70%	11/19/2009
			Market price	-2.70%	1.71%	1.71%	-1.92%	-0.67%	0.87%	1.72%	
Total International Bond	BNDX	0.07%	NAV	0.11%	3.68%	3.68%	-0.55%	0.12%	1.93%	2.40%	5/31/2013
			Market price	0.15%	3.58%	3.58%	-0.58%	0.10%	1.91%	2.40%	
Federal Money Market Fund SEC 7-day yield: 4.39%	VMFXX	0.11%	NAV	1.17%	5.23%	5.23%	3.94%	2.44%	1.72%	3.94%	7/13/1981

The yield quotation more closely reflects the current earnings of the fund than the total return quotation.

The underlying fund performance is shown to illustrate the impact of each individual fund's performance to the overall strategy. It is the investment advisor's responsibility to determine the appropriateness of the model portfolios, or any of the securities included therein, for any client.

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' ETF shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance.

¹ As reported in each ETF's most recent prospectus as of December 31, 2024. 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 series of the model portfolios effective December 31, 2015. The performance of VSS through that date is embedded in historical model portfolio performance.

*The hypothetical model performance data referenced on the previous page is calculated by obtaining the weighted monthly returns of the strategy component holdings for each period and is based upon the historical asset allocations at the beginning of each month during the periods shown, which may differ from the current allocation. The holdings comprising the strategies and the allocations to those holdings have changed over time and may change in the future. The hypothetical model performance has not been adjusted to reflect current allocations. Model performance does not reflect any transaction costs that an investor may incur in implementing the models.

The hypothetical model portfolio performance periods cited may precede the inception of certain current holdings, and will reflect the returns of those holdings as of the dates they were added to the portfolio.



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