

CRSP

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

- Broad-market equity and investment-grade¹ fixed income exposure, encompassing more than 25,000 global stocks and bonds.
- Diversified index investments that can help alleviate active manager risk in portfolios through lower return variability and low turnover.
- Remarkably low costs, with weighted average expense ratios ranging from 0.06% to 0.08%, 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 September 30, 2022

Vanguard fund	Ticker	Expense ratio ³	Asset allocation (%) ²										
			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 Index	VIGAX	0.05%	0.0%	2.7%	5.3%	8.0%	10.6%	13.3%	16.0%	18.6%	21.3%	23.9%	26.6%
Value Index	VVIAX	0.05	0.0	2.5	5.1	7.6	10.1	12.7	15.2	17.7	20.3	22.8	25.3
Small-Cap Index	VSMAX	0.05	0.0	0.7	1.4	2.0	2.8	3.4	4.1	4.9	5.4	6.2	6.9
International equity													
Developed Markets Index	VTMGX	0.07%	0.0%	2.9%	5.7%	8.6%	11.4%	14.3%	17.2%	20.0%	22.9%	25.8%	28.6%
Emerging Markets Stock Index	VEMAX	0.14	0.0	1.0	2.1	3.2	4.3	5.3	6.3	7.4	8.5	9.5	10.6
Domestic fixed income													
Short-Term Bond Index	VBIRX	0.07%	27.5%	24.7%	22.0%	19.2%	16.5%	13.7%	11.0%	8.2%	5.5%	2.7%	0.0%
Inter-Term Bond Index	VBILX	0.07	14.0	12.6	11.2	9.8	8.4	7.0	5.6	4.2	2.8	1.4	0.0
Long-Term Bond Index ³	VLAX	0.07	13.0	11.7	10.4	9.1	7.8	6.5	5.1	4.0	2.6	1.4	0.0
Mortgage-Backed Securities Index	VMBSX	0.07	14.1	12.7	11.3	9.9	8.5	7.1	5.7	4.2	2.8	1.4	0.0
International fixed income													
Total International Bond Index	VTABX	0.11%	29.4%	26.5%	23.5%	20.6%	17.6%	14.7%	11.8%	8.8%	5.9%	2.9%	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%
Weighted average expense ratio			0.08%	0.08%	0.08%	0.08%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.06%

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 fund's most recent prospectus as of September 30, 2022. 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 September 30, 2022	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%	8.7%	13.1%	17.3%	21.8%	26.1%	30.4%	34.8%	39.1%	43.4%
Equity—U.S. mid-cap	0.0	1.2	2.4	3.5	4.7	5.8	7.0	8.2	9.3	10.5	11.7
Equity—U.S. small-cap	0.0	0.4	0.7	1.1	1.5	1.8	2.2	2.6	2.9	3.3	3.7
International equity											
Equity—Intl. developed markets	0.0%	2.9%	5.7%	8.5%	11.3%	14.2%	17.1%	19.9%	22.7%	25.6%	28.4%
Equity—Intl. emerging markets	0.0	1.0	2.1	3.3	4.4	5.4	6.4	7.5	8.7	9.7	10.8
Domestic fixed income											
Fixed income—U.S. Treasury	32.5%	29.2%	26.0%	22.7%	19.5%	16.2%	13.0%	9.8%	6.5%	3.3%	0.0%
Fixed income—U.S. government-related	14.1	12.7	11.3	9.9	8.5	7.1	5.7	4.2	2.8	1.4	0.0
Fixed income—U.S. corporate	18.8	16.9	15.0	13.1	11.3	9.4	7.5	5.7	3.8	1.9	0.0
Fixed income—U.S. securitized	1.4	1.3	1.1	1.0	0.9	0.7	0.6	0.4	0.3	0.1	0.0
Fixed income—Other	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.3	0.2	0.1	0.0
International fixed income											
Fixed income—International	30.3%	27.3%	24.2%	21.2%	18.2%	15.2%	12.2%	9.1%	6.1%	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 September 30, 2022		0/100	10/90	20/80	30/70	40/60	50/50	60/40	70/30	80/20	90/10	100/0
Quarter	Gross	-4.17%	-4.39%	-4.64%	-4.91%	-5.16%	-5.41%	-5.68%	-5.93%	-6.22%	-6.49%	-6.77%
	Net advisory fee	-4.92	-5.14	-5.39	-5.66	-5.91	-6.16	-6.43	-6.68	-6.97	-7.24	-7.52
Year-to-date	Gross	-13.87	-14.99	-16.14	-17.27	-18.40	-19.52	-20.64	-21.75	-22.87	-23.98	-25.09
	Net advisory fee	-16.12	-17.24	-18.39	-19.52	-20.65	-21.77	-22.89	-24.00	-25.12	-26.23	-27.34
1 year	Gross	-13.95	-14.52	-15.14	-15.75	-16.37	-17.01	-17.66	-18.31	-18.99	-19.68	-20.37
	Net advisory fee	-16.95	-17.52	-18.14	-18.75	-19.37	-20.01	-20.66	-21.31	-21.99	-22.68	-23.37
3 year	Annualized gross	-3.48	-2.61	-1.77	-0.96	-0.16	0.62	1.36	2.09	2.78	3.45	4.09
	Annualized net advisory fee	-6.48	-5.61	-4.77	-3.96	-3.16	-2.38	-1.64	-0.91	-0.22	0.45	1.09
5 year	Annualized gross	-0.16	0.45	1.03	1.59	2.13	2.65	3.14	3.61	4.04	4.46	4.85
	Annualized net advisory fee	-3.16	-2.55	-1.97	-1.41	-0.87	-0.35	0.14	0.61	1.04	1.46	1.85
10 year	Annualized gross	0.98	—	2.56	—	4.07	—	5.53	6.25	6.94	—	8.28
	Annualized net advisory fee	-2.02	—	-0.44	—	1.07	—	2.53	3.25	3.94	—	5.28
Since inception	Annualized gross	1.81	1.92	3.48	3.01	5.08	4.03	6.62	6.84	8.09	5.86	9.49
	Annualized net advisory fee	-1.19	-1.08	0.48	0.01	2.08	1.03	3.62	3.84	5.09	2.86	6.49
Inception date		7/1/2010	1/1/2014	7/1/2010	1/1/2014	7/1/2010	1/1/2014	7/1/2010	1/1/2012	7/1/2010	1/1/2014	7/1/2010

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 September 30, 2022, 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 September 30, 2022 (unless otherwise noted)

Vanguard fund	Ticker	Expense ratio ¹	Annualized							Since inception	Inception date
			Quarter	Year-to-date	1 year	3 year	5 year	10 year			
Growth Index	VIGAX	0.05%	-3.80%	-33.04%	-25.86%	9.49%	10.97%	12.69%	6.81%	11/13/2000	
Value Index	VVIAX	0.05%	-5.74	-14.60	-6.64	6.15	7.06	10.48	6.50	11/13/2000	
Small-Cap Index	VSMAX	0.05%	-2.61	-23.70	-20.74	4.98	5.37	9.57	8.34	11/13/2000	
Developed Markets Index	VTMGX	0.07%	-10.44	-27.69	-25.53	-1.26	-0.63	4.04	3.27	8/17/1999	
Emerging Markets Stock Index	VEMAX	0.14%	-10.75	-24.01	-24.33	-0.56	-0.71	1.42	3.90	6/23/2006	
FTSE AW ex-US Small-Cap Index ²	VFSVX	0.31%	3.40	-0.22	-0.22	3.55	1.62	—	11.27	4/2/2009	
Short-Term Bond Index	VBIRX	0.07%	-2.11	-6.53	-7.26	-0.96	0.50	0.80	2.37	11/12/2001	
Inter-Term Bond Index	VBILX	0.07%	-4.77	-14.87	-15.24	-3.03	0.09	1.20	3.93	11/12/2001	
Long-Term Bond Index ³	VBLAX	0.07%	-9.09	-28.75	-27.46	-7.34	—	—	-1.73	2/7/2019	
Long-Term Bond Index ⁴	VBLTX	0.15%	6.25	13.01	13.71	3.57	5.57	7.48	7.31	3/1/1994	
Mortgage-Backed Securities Index	VMBSX	0.07%	-5.18	-13.58	-14.03	-3.78	-1.07	0.36	1.30	12/3/2009	
Total International Bond Index	VTABX	0.11%	-3.31	-12.92	-13.10	-4.22	-0.01	—	1.64	5/31/2013	
Money market fund ⁵			0.45	0.62	0.63	0.57	1.12	0.65	—		

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' 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 fund's most recent prospectus as of September 30, 2022. The current expense ratio may be higher or lower than the figure shown.

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

3 The fund assesses a 0.50% fee (\$5 per \$1,000) on purchases. The fee is paid directly to the fund and therefore is not considered a load. The purchase fee is not reflected in the performance, therefore, if reflected, the performance quoted would be lower.

4 Vanguard Long-Term Bond Index (VBLTX, Investor Shares) was replaced with Vanguard Long-Term Bond Index (VBLAX, Admiral Shares) effective July 1, 2019. The performance of VBLTX through that date is embedded in historical model portfolio performance.

5 The FTSE 3-Month T-Bill Index is used to represent performance of a money market fund. The model performance does not include performance of any specific money market fund.

*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.



For more information on Vanguard funds and Vanguard ETFs, visit advisors.vanguard.com or call 800-997-2798 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.

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For additional information and description of benchmark composition, please view the model "Performance Data" available at <https://advisors.vanguard.com>.

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FAFTJMF 102022

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