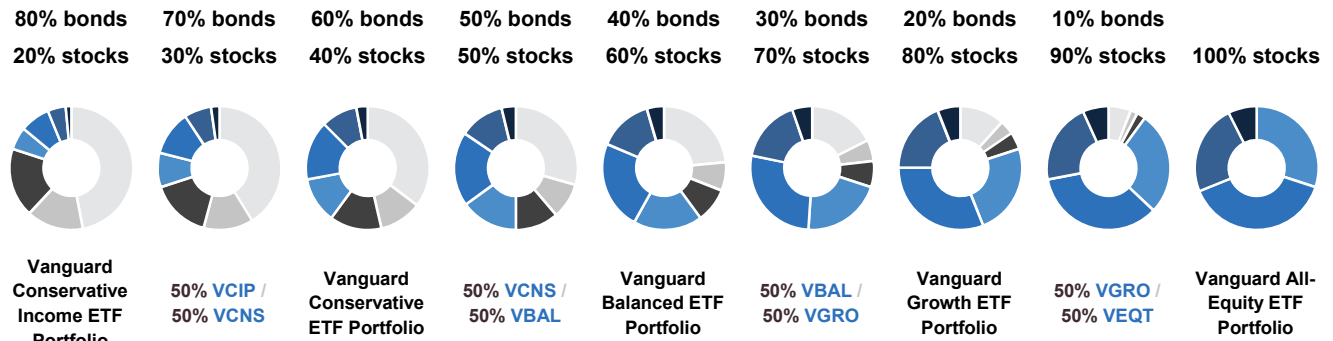


Model ETF Portfolios as of February 28, 2019

Vanguard Canada Asset Allocation ETFs



Underlying ETFs	Symbol	VCIP	VCNS	VCNS	VBAL	VBAL	VGRO	VGRO	VEQT	VEQT
Vanguard Canadian Aggregate Bond Index ETF	VAB	47.0%	41.2%	35.3%	29.4%	23.5%	17.6%	11.8%	5.9%	0.0%
Vanguard U.S. Aggregate Bond Index ETF (CAD-hedged)	VBU	14.9%	13.0%	11.1%	9.3%	7.4%	5.6%	3.7%	1.9%	0.0%
Vanguard Global ex-U.S. Aggregate Bond Index ETF (CAD-hedged)	VBG	18.1%	15.8%	13.6%	11.3%	9.0%	6.8%	4.5%	2.3%	0.0%
Vanguard FTSE Canada All Cap Index ETF	VCN	6.0%	9.0%	12.0%	15.0%	18.0%	21.0%	24.0%	27.0%	30.0%
Vanguard U.S. Total Market Index ETF	VUN	7.8%	11.7%	15.6%	19.5%	23.3%	27.2%	31.1%	35.0%	38.9%
Vanguard FTSE Developed All Cap ex North America Index ETF	VIU	4.7%	7.1%	9.4%	11.8%	14.2%	16.5%	18.9%	21.2%	23.6%
Vanguard FTSE Emerging Markets All Cap Index ETF	VEE	1.5%	2.2%	3.0%	3.7%	4.5%	5.2%	6.0%	6.7%	7.5%
<i>Target asset allocations as of December 31, 2018</i>		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Management Expense Ratio (MER)		0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%

Model ETF Portfolio Performance as of February 28, 2019

YTD Return	2.71%	3.37%	4.04%	4.75%	5.47%	6.21%	6.95%	7.59%	8.22%
1-Year Return	3.19%	3.13%	3.07%	3.07%	3.05%	3.04%	3.02%	2.74%	2.45%
3-Year Annualized Return	3.73%	4.66%	5.60%	6.55%	7.51%	8.47%	9.44%	10.35%	11.27%
5-Year Annualized Return	4.12%	4.67%	5.21%	5.75%	6.30%	6.84%	7.38%	7.88%	8.38%
10-Year Annualized Return	5.77%	6.60%	7.42%	8.25%	9.07%	9.89%	10.71%	11.50%	12.29%
20-Year Annualized Return	5.09%	5.20%	5.30%	5.39%	5.46%	5.51%	5.55%	5.57%	5.57%
Lowest 1-Year Return	-5.45%	-9.53%	-13.48%	-17.29%	-20.98%	-24.53%	-27.97%	-31.28%	-34.48%
20-Year Annualized Standard Deviation	3.37%	4.08%	4.99%	6.00%	7.08%	8.20%	9.34%	10.50%	11.67%

Sources: Morningstar Direct, MSCI. S&P Dow Jones and FTSE Russell Indices courtesy of Dimensional Returns 2.0

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Canadian Stocks

01/1998-01/2019: Monthly returns of the MSCI Canada IMI Index, minus 0.020833% per month

Global Stocks (ex Canada)

01/1998-01/2019: Monthly returns of the MSCI ACWI ex Canada IMI Index (net div.) (in CAD), minus 0.020833% per month

Canadian Bonds

01/1998-01/2019: Monthly returns of the FTSE Canada Universe Bond Index, minus 0.020833% per month

Global Bonds

01/1998-01/2019: Monthly returns of the ICE BofA Merrill Lynch Global Broad Market Index (CAD Hedged), minus 0.020833% per month

Vanguard Conservative Income ETF Portfolio (VCIP)

01/1998-01/2019: 47% Canadian Bonds + 33% Global Bonds + 6% Canadian Stocks + 14% Global Stocks (ex Canada), rebalanced monthly

02/2019: Actual monthly returns of the Vanguard Conservative Income ETF Portfolio (VCIP)

50% VCIP / 50% VCNS

01/1998-02/2019: 50% Vanguard Conservative Income ETF Portfolio (VCIP) + 50% Vanguard Conservative ETF Portfolio (VCNS), rebalanced monthly

Vanguard Conservative ETF Portfolio (VCNS)

01/1998-01/2018: 35.3% Canadian Bonds + 24.7% Global Bonds + 12% Canadian Stocks + 28% Global Stocks (ex Canada), rebalanced monthly

02/2018-02/2019: Actual monthly returns of the Vanguard Conservative ETF Portfolio (VCNS)

50% VCNS / 50% VBAL

01/1998-02/2019: 50% Vanguard Conservative ETF Portfolio (VCNS) + 50% Vanguard Balanced ETF Portfolio (VBAL), rebalanced monthly

Vanguard Balanced ETF Portfolio (VBAL)

01/1998-01/2018: 23.5% Canadian Bonds + 16.5% Global Bonds + 18% Canadian Stocks + 42% Global Stocks (ex Canada), rebalanced monthly

02/2018-02/2019: Actual monthly returns of the Vanguard Balanced ETF Portfolio (VBAL)

50% VBAL / 50% VGRO

01/1998-02/2019: 50% Vanguard Balanced ETF Portfolio (VBAL) + 50% Vanguard Growth ETF Portfolio (VGRO), rebalanced monthly

Vanguard Growth ETF Portfolio (VGRO)

01/1998-01/2018: 11.8% Canadian Bonds + 8.2% Global Bonds + 24% Canadian Stocks + 56% Global Stocks (ex Canada), rebalanced monthly

02/2018-02/2019: Actual monthly returns of the Vanguard Growth ETF Portfolio (VGRO)

50% VGRO / 50% VEQT

01/1998-02/2019: 50% Vanguard Growth ETF Portfolio (VGRO) + 50% Vanguard All-Equity ETF Portfolio (VEQT), rebalanced monthly

Vanguard All-Equity ETF Portfolio (VEQT)

01/1998-01/2019: 30% Canadian Stocks + 70% Global Stocks (ex Canada), rebalanced monthly

02/2019: Actual monthly returns of the Vanguard All-Equity ETF Portfolio (VEQT)

Sources: Morningstar Direct, MSCI. S&P Dow Jones and FTSE Russell Indices courtesy of Dimensional Returns 2.0

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