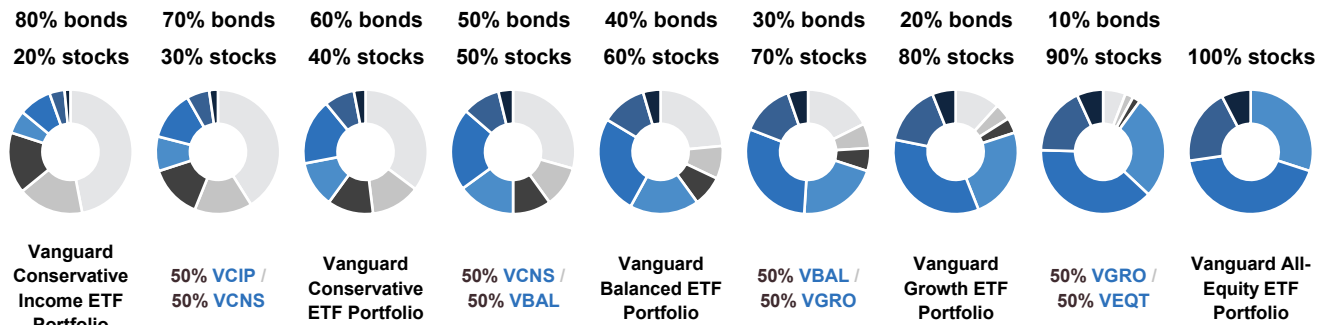


For illustration purposes only

Vanguard Asset Allocation ETFs



Underlying ETFs	Symbol	VCIP	VCNS	VBAL	VGRO	VEQT
Vanguard Canadian Aggregate Bond Index ETF	VAB	46.96%	41.09%	35.22%	29.35%	23.48%
Vanguard U.S. Aggregate Bond Index ETF (CAD-hedged)	VBU	17.13%	14.99%	12.85%	10.71%	8.57%
Vanguard Global ex-U.S. Aggregate Bond Index ETF (CAD-hedged)	VBG	15.91%	13.92%	11.93%	9.94%	7.95%
Vanguard FTSE Canada All Cap Index ETF	VCN	6.00%	9.00%	12.00%	15.00%	18.00%
Vanguard U.S. Total Market Index ETF	VUN	8.54%	12.81%	17.08%	21.35%	25.62%
Vanguard FTSE Developed All Cap ex North America Index ETF	VIU	3.94%	5.91%	7.88%	9.85%	11.82%
Vanguard FTSE Emerging Markets All Cap Index ETF	VEE	1.52%	2.28%	3.04%	3.80%	4.56%
<i>Target asset allocations as of December 31, 2022</i>		100.00%	100.00%	100.00%	100.00%	100.00%
Management Expense Ratio (MER)		0.24%	0.24%	0.24%	0.24%	0.24%

Hypothetical Performance as of December 31, 2022

YTD Return	-12.18%	-11.98%	-11.78%	-11.62%	-11.45%	-11.33%	-11.21%	-11.06%	-10.92%
1-Year Return	-12.18%	-11.98%	-11.78%	-11.62%	-11.45%	-11.33%	-11.21%	-11.06%	-10.92%
3-Year Annualized Return	-1.16%	-0.24%	0.69%	1.59%	2.48%	3.34%	4.20%	5.03%	5.85%
5-Year Annualized Return	1.12%	1.82%	2.51%	3.20%	3.88%	4.55%	5.20%	5.83%	6.45%
10-Year Annualized Return	3.08%	3.97%	4.86%	5.75%	6.64%	7.52%	8.40%	9.27%	10.13%
20-Year Annualized Return	4.24%	4.69%	5.14%	5.58%	6.01%	6.42%	6.82%	7.21%	7.58%
30-Year Annualized Return	5.71%	6.01%	6.31%	6.59%	6.85%	7.10%	7.33%	7.55%	7.75%
40-Year Annualized Return	7.45%	7.73%	8.00%	8.24%	8.48%	8.69%	8.88%	9.06%	9.22%
50-Year Annualized Return	7.66%	7.89%	8.09%	8.28%	8.46%	8.61%	8.75%	8.86%	8.96%
Lowest 1-Year Return	-12.18%	-15.36%	-18.85%	-22.22%	-25.49%	-28.65%	-31.71%	-34.66%	-37.52%
50-Year Annualized Standard Deviation	5.82%	6.25%	6.90%	7.71%	8.64%	9.65%	10.72%	11.83%	12.98%

Sources: Morningstar Direct, CRSP and FTSE Russell Index Fact Sheets as of December 31, 2022.

This table is published by Justin Bender for your information only. Information on which this table is based is available on request. Particular investments or trading strategies should be evaluated relative to each individual's objectives in consultation with the Investment Advisor. Opinions of Justin Bender constitute his judgment as of the date on this document, and are subject to change without notice. They are provided in good faith but without responsibility for any errors or omissions contained herein. This table is furnished on the basis and understanding that neither Justin Bender nor his employees, agents or information suppliers is to be under any responsibility of liability whatsoever in respect thereof.

Canadian Stocks

01/1970-present: Monthly returns of the S&P/TSX Composite Index

Global Stocks (ex Canada)

01/1970-12/1987: Monthly returns of the MSCI World ex Canada Index (net div.) (in CAD)

01/1988-05/1994: Monthly returns of the MSCI ACWI ex Canada Index (gross div.) (in CAD)

06/1994-present: Monthly returns of the MSCI ACWI ex Canada IMI Index (net div.) (in CAD)

Canadian Bonds

01/1970-12/1979: Monthly returns of the FTSE Canada 91 Day T-Bill Index (35% weighting) + FTSE Canada Long-Term Bond Index (65% weighting), rebalanced monthly

01/1980-present: Monthly returns of the FTSE Canada Universe Bond Index

Global Bonds

01/1970-12/1979: Monthly returns of the FTSE Canada 91 Day T-Bill Index (35% weighting) + FTSE Canada Long-Term Bond Index (65% weighting), rebalanced monthly

01/1980-12/1996: Monthly returns of the FTSE Canada Universe Bond Index

01/1997-present: Monthly returns of the ICE BofA Merrill Lynch Global Broad Market Index (CAD Hedged)

Vanguard Conservative Income ETF Portfolio (VCIP)

01/1970-01/2019: 47% Canadian Bonds + 33% Global Bonds + 6% Canadian Stocks + 14% Global Stocks (ex Canada), minus 0.0208% per month, rebalanced monthly

02/2019-present: Monthly returns of the Vanguard Conservative Income ETF Portfolio (VCIP)

50% VCIP / 50% VCNS

01/1970-present: 50% Vanguard Conservative Income ETF Portfolio (VCIP) + 50% Vanguard Conservative ETF Portfolio (VCNS), rebalanced monthly

Vanguard Conservative ETF Portfolio (VCNS)

01/1970-01/2018: 35.3% Canadian Bonds + 24.7% Global Bonds + 12% Canadian Stocks + 28% Global Stocks (ex Canada), minus 0.0208% per month, rebalanced monthly

02/2018-present: Monthly returns of the Vanguard Conservative ETF Portfolio (VCNS)

50% VCNS / 50% VBAL

01/1970-present: 50% Vanguard Conservative ETF Portfolio (VCNS) + 50% Vanguard Balanced ETF Portfolio (VBAL), rebalanced monthly

Vanguard Balanced ETF Portfolio (VBAL)

01/1970-01/2018: 23.5% Canadian Bonds + 16.5% Global Bonds + 18% Canadian Stocks + 42% Global Stocks (ex Canada), minus 0.0208% per month, rebalanced monthly

02/2018-present: Monthly returns of the Vanguard Balanced ETF Portfolio (VBAL)

50% VBAL / 50% VGRO

01/1970-present: 50% Vanguard Balanced ETF Portfolio (VBAL) + 50% Vanguard Growth ETF Portfolio (VGRO), rebalanced monthly

Vanguard Growth ETF Portfolio (VGRO)

01/1970-01/2018: 11.8% Canadian Bonds + 8.2% Global Bonds + 24% Canadian Stocks + 56% Global Stocks (ex Canada), minus 0.0208% per month, rebalanced monthly

02/2018-present: Monthly returns of the Vanguard Growth ETF Portfolio (VGRO)

50% VGRO / 50% VEQT

01/1970-present: 50% Vanguard Growth ETF Portfolio (VGRO) + 50% Vanguard All-Equity ETF Portfolio (VEQT), rebalanced monthly

Vanguard All-Equity ETF Portfolio (VEQT)

01/1970-01/2019: 30% Canadian Stocks + 70% Global Stocks (ex Canada), minus 0.0208% per month, rebalanced monthly

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

Sources: Morningstar Direct, CRSP and FTSE Russell Index Fact Sheets as of December 31, 2022.

This table is published by Justin Bender for your information only. Information on which this table is based is available on request. Particular investments or trading strategies should be evaluated relative to each individual's objectives in consultation with the Investment Advisor. Opinions of Justin Bender constitute his judgment as of the date on this document, and are subject to change without notice. They are provided in good faith but without responsibility for any errors or omissions contained herein. This table is furnished on the basis and understanding that neither Justin Bender nor his employees, agents or information suppliers is to be under any responsibility of liability whatsoever in respect thereof.