

# Model ETF Portfolios as of December 31, 2018

100% bonds

80% bonds 20% stocks 70% bonds 60% bonds

50% bonds

50% stocks

40% bonds 60% stocks 30% bonds 70% stocks 20% bonds 80% stocks

100% stocks

### **RRSP & RRIF Accounts**







30% stocks



40% stocks











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Security Name	Symbol									
BMO Aggregate Bond Index ETF	ZAG	100.0%	80.0%	70.0%	60.0%	50.0%	40.0%	30.0%	20.0%	0.0%
Vanguard FTSE Canada All Cap Index ETF	VCN	0.0%	7.0%	10.0%	13.0%	17.0%	20.0%	23.0%	27.0%	33.0%
iShares Core MSCI All Country World ex Canada Index ETF	XAW	0.0%	13.0%	20.0%	27.0%	33.0%	40.0%	47.0%	53.0%	67.0%
■ iShares Core S&P Total U.S. Stock Market ETF*	ITOT	0.0%	7.2%	11.1%	15.0%	18.4%	22.3%	26.1%	29.5%	37.3%
■ iShares Core MSCI EAFE ETF*	IEFA	0.0%	4.2%	6.5%	8.7%	10.7%	12.9%	15.2%	17.1%	21.7%
■ iShares Core MSCI Emerging Markets ETF*	IEMG	0.0%	1.6%	2.4%	3.2%	4.0%	4.8%	5.6%	6.4%	8.0%
*US-listed ETFs		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.09
Management Expense Ratio (MER)		0.09%	0.10%	0.11%	0.12%	0.13%	0.14%	0.14%	0.15%	0.17%
Model ETF Portfolio Performance as of December 31, 20	18									
YTD Return		1.24%	0.13%	-0.38%	-0.90%	-1.49%	-2.01%	-2.52%	-3.11%	-4.159
1-Year Return		1.24%	0.13%	-0.38%	-0.90%	-1.49%	-2.01%	-2.52%	-3.11%	-4.15%
3-Year Annualized Return		1.69%	2.67%	3.15%	3.62%	4.10%	4.56%	5.02%	5.48%	6.37%
5-Year Annualized Return		3.32%	4.26%	4.76%	5.25%	5.69%	6.17%	6.66%	7.08%	8.039
10-Year Annualized Return		3.88%	5.21%	5.88%	6.53%	7.14%	7.78%	8.39%	8.97%	10.15
20-Year Annualized Return		4.88%	5.17%	5.25%	5.32%	5.38%	5.38%	5.36%	5.33%	5.139
20-Year Annualized Return Lowest 1-Year Return		4.88%	5.17%	5.25% -7.92%	5.32%	5.38%	5.38%	5.36%	5.33%	5.13%

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

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# Model ETF Portfolios as of December 31, 2018

100% bonds

80% bonds 20% stocks 70% bonds 60% bonds 50% bonds 50% stocks 40% bonds 60% stocks 30% bonds 70% stocks 20% bonds 80% stocks

100% stocks

## TFSA, RESP and RDSP Accounts







30% stocks



40% stocks











Security Name	Symbol									
BMO Aggregate Bond Index ETF	ZAG	100.0%	80.0%	70.0%	60.0%	50.0%	40.0%	30.0%	20.0%	0.0%
Vanguard FTSE Canada All Cap Index ETF	VCN	0.0%	7.0%	10.0%	13.0%	17.0%	20.0%	23.0%	27.0%	33.0%
iShares Core MSCI All Country World ex Canada Index ETF	XAW	0.0%	13.0%	20.0%	27.0%	33.0%	40.0%	47.0%	53.0%	67.0%
■ iShares Core S&P U.S. Total Market Index ETF	XUU	0.0%	7.2%	11.1%	15.0%	18.4%	22.3%	26.1%	29.5%	37.3%
iShares Core MSCI EAFE IMI Index ETF	XEF	0.0%	4.2%	6.5%	8.7%	10.7%	12.9%	15.2%	17.1%	21.7%
iShares Core MSCI Emerging Markets IMI Index ETF	XEC	0.0%	1.6%	2.4%	3.2%	4.0%	4.8%	5.6%	6.4%	8.0%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0
Management Expense Ratio (MER)		0.09%	0.10%	0.11%	0.12%	0.13%	0.14%	0.14%	0.15%	0.179
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Model ETF Portfolio Performance as of December 31, 20	18									
· · · · · · · · · · · · · · · · · · ·	18	1.24%	0.13%	-0.38%	-0.90%	-1.49%	-2.01%	-2.52%	-3.11%	
YTD Return	18	1.24% 1.24%	0.13% 0.13%				-2.01% -2.01%	-2.52% -2.52%		-4.15
YTD Return 1-Year Return	18			-0.38%	-0.90%	-1.49%			-3.11%	-4.15 -4.15 6.37
YTD Return 1-Year Return 3-Year Annualized Return	18	1.24%	0.13%	-0.38% -0.38%	-0.90% -0.90%	-1.49% -1.49%	-2.01%	-2.52%	-3.11% -3.11%	-4.15 -4.15 6.37
YTD Return 1-Year Return 3-Year Annualized Return 5-Year Annualized Return	18	1.24% 1.69%	0.13% 2.67%	-0.38% -0.38% 3.15%	-0.90% -0.90% 3.62%	-1.49% -1.49% 4.10%	-2.01% 4.56%	-2.52% 5.02%	-3.11% -3.11% 5.48%	-4.15 -4.15 6.379 8.039
YTD Return 1-Year Return 3-Year Annualized Return 5-Year Annualized Return 10-Year Annualized Return	18	1.24% 1.69% 3.32%	0.13% 2.67% 4.26%	-0.38% -0.38% 3.15% 4.76%	-0.90% -0.90% 3.62% 5.25%	-1.49% -1.49% 4.10% 5.69%	-2.01% 4.56% 6.17%	-2.52% 5.02% 6.66%	-3.11% -3.11% 5.48% 7.08%	-4.15 -4.15 6.37 8.03 10.15
Model ETF Portfolio Performance as of December 31, 20° YTD Return 1-Year Return 3-Year Annualized Return 5-Year Annualized Return 10-Year Annualized Return 20-Year Annualized Return Lowest 1-Year Return	18	1.24% 1.69% 3.32% 3.88%	0.13% 2.67% 4.26% 5.21%	-0.38% -0.38% 3.15% 4.76% 5.88%	-0.90% -0.90% 3.62% 5.25% 6.53%	-1.49% -1.49% 4.10% 5.69% 7.14%	-2.01% 4.56% 6.17% 7.78%	-2.52% 5.02% 6.66% 8.39%	-3.11% -3.11% 5.48% 7.08% 8.97%	-4.15 -4.15

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

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# Model ETF Portfolios as of December 31, 2018

100% bonds

80% bonds 20% stocks 70% bonds 60% bonds 40% stocks

50% bonds 50% stocks 40% bonds 60% stocks

30% bonds 70% stocks 20% bonds 80% stocks

100% stocks

## Taxable Accounts







30% stocks











Security Name	Symbol									
BMO Discount Bond Index ETF	ZDB	100.0%	80.0%	70.0%	60.0%	50.0%	40.0%	30.0%	20.0%	0.0%
Vanguard FTSE Canada All Cap Index ETF	VCN	0.0%	7.0%	10.0%	13.0%	17.0%	20.0%	23.0%	27.0%	33.0%
iShares Core MSCI All Country World ex Canada Index ET	F XAW	0.0%	13.0%	20.0%	27.0%	33.0%	40.0%	47.0%	53.0%	67.0%
■ iShares Core S&P U.S. Total Market Index ETF	XUU	0.0%	7.2%	11.1%	15.0%	18.4%	22.3%	26.1%	29.5%	37.3%
iShares Core MSCI EAFE IMI Index ETF	XEF	0.0%	4.2%	6.5%	8.7%	10.7%	12.9%	15.2%	17.1%	21.7%
iShares Core MSCI Emerging Markets IMI Index ETF	XEC	0.0%	1.6%	2.4%	3.2%	4.0%	4.8%	5.6%	6.4%	8.0%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Management Expense Ratio (MER)		0.09%	0.10%	0.11%	0.12%	0.13%	0.14%	0.14%	0.15%	0.17%
Model ETF Portfolio Performance as of December 31, 20	18									
YTD Return		1.18%	0.08%	-0.43%	-0.94%	-1.52%	-2.03%	-2.54%	-3.13%	-4.15%
1-Year Return		1.18%	0.08%	-0.43%	-0.94%	-1.52%	-2.03%	-2.54%	-3.13%	-4.15%
3-Year Annualized Return		1.42%	2.46%	2.96%	3.46%	3.96%	4.46%	4.94%	5.42%	6.37%
5-Year Annualized Return		3.23%	4.20%	4.70%	5.21%	5.65%	6.14%	6.63%	7.07%	8.03%
10-Year Annualized Return		3.96%	5.28%	5.94%	6.58%	7.19%	7.81%	8.42%	8.99%	10.15%
20 V A   P - t										
20-Year Annualized Return		4.92%	5.20%	5.28%	5.34%	5.40%	5.40%	5.37%	5.34%	5.13%
Lowest 1-Year Return		4.92% -3.58%	5.20%	5.28%	5.34%	5.40%	5.40% -19.61%	5.37%	-27.31%	5.13%

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

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## Performance Methodology as of December 31, 2018

### BMO Aggregate Bond Index ETF (ZAG)

01/1998-01/2010: Monthly returns of the FTSE Canada Universe Bond Index, minus 0.0075% per month

02/2010-12/2018: Monthly returns of the BMO Aggregate Bond Index ETF (ZAG)

#### BMO Discount Bond Index ETF (ZDB)

01/1998-02/2014: Monthly returns of the FTSE Canada Universe Bond Index, minus 0.0075% per month

03/2014-12/2018: Monthly returns of the BMO Discount Bond Index ETF (ZDB)

### Vanguard FTSE Canada All Cap Index ETF (VCN)

01/1998-08/2013: Monthly returns of the S&P/TSX Composite Index, minus 0.005% per month 09/2013-12/2018: Monthly returns of the Vanguard FTSE Canada All Cap Index ETF (VCN)

### iShares Core MSCI All Country World ex Canada Index ETF (XAW)

01/1998-02/2015: Monthly returns of the MSCI ACWI ex Canada IMI Index (net div.) (in CAD), minus 0.018333% per month

03/2015-12/2018: Monthly returns of the iShares Core MSCI All Country World ex Canada Index ETF (XAW)

Portfolios are rebalanced annually at the end of each calendar year.

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

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