



# From the Desk of the Quantitative Team



## Finding Stability in Turbulent Markets with Low Volatility

By Michael Formuziewich, CFA and Julien Palardy, CFA edited by Lisa Bissnauth

*In the face of volatile markets, Michael Formuziewich, CFA, Vice President, Retail Client Portfolio Management TD Asset Management Inc., and Julien Palardy, CFA, Managing Director, Head of Quantitative Investing TD Asset Management Inc., explore the demonstrative resilience of low volatility strategies and how the Quantitative Team (the Team) at TD Asset Management Inc., (TDAM, we, our) are harnessing the future potential by integrating AI into risk modeling.*

### Low Volatility Strategies Second Quarter and Year-to-Date Performance

TDAM's three low volatility ETFs: TD Q Canadian Low Volatility ETF, TD Q U.S. Low Volatility ETF, and TD Q International Low Volatility ETF, trailed benchmark performance during the second quarter this year, however all three delivered strong outperformance in the first quarter and strong one-year performance (**Exhibit 1**). Additionally, the Canadian low volatility strategy posted an impressive year-to-date (YTD) return, and outperformed its benchmark.

Exhibit 1: TD Low Volatility Performance

Annualized									
Returns as of June 30, 2025	Inception Date	3 mths	YTD	1 yrs	2 yrs	3 yrs	4 yrs	5 yrs	Since Inception
TD Q Canadian Low Volatility ETF	May 26-20	7.65%	15.35%	28.28%	16.52%	11.59%	10.83%	13.62%	13.44%
MSCI Canada Index		8.27%	9.56%	26.62%	19.25%	15.98%	10.59%	14.68%	15.02%
Difference		-0.62%	5.79%	1.66%	-2.73%	-4.39%	0.24%	-1.06%	-1.58%
TD Q U.S. Low Volatility ETF	May 26-20	-8.78%	-1.42%	12.26%	10.43%	8.03%	8.79%	9.21%	9.13%
MSCI USA Index (Net) C\$		5.47%	0.69%	15.00%	21.49%	21.68%	12.98%	16.01%	16.29%
Difference		-14.25%	-2.11%	-2.74%	-11.06%	-13.65%	-4.19%	-6.80%	-7.16%

<b>TD Q International Low Volatility ETF</b>	<b>May 7-19</b>	2.54%	12.12%	21.30%	16.17%	14.32%	9.54%	9.99%	6.62%
<b>MSCI EAFE Index (Net) C\$</b>		5.97%	13.33%	17.40%	16.36%	18.16%	9.03%	11.20%	8.73%
<b>Difference</b>		<b>-3.43%</b>	<b>-1.21%</b>	<b>3.90%</b>	<b>-0.19%</b>	<b>-3.84%</b>	<b>0.51%</b>	<b>-1.21%</b>	<b>-2.11%</b>

Note: Returns for periods over one year are annualized. Net of expenses. Numbers may not add due to rounding.

Source: TD Asset Management Inc. As of June 30, 2025.

## Asymmetric Return Profile

Low volatility strategies are designed to capture less downside during market downturns. However, over the past year the Canadian and international strategies also delivered strong upside performance and outperformed their benchmarks as markets rose, with the U.S. strategy being the exception. This was attributed to several market-specific factors:

- The U.S. low volatility strategy does not have exposure to the U.S. mega-cap technology stocks (the "Magnificent Seven") which suffered early in the second quarter. This helped to minimize the ETF's downside capture, however as these stocks rebounded sharply, the strategy did not participate, resulting in more muted upside performance.
- Canadian and international markets witnessed a rebound that was not dominated by the riskiest stocks, enabling our low volatility strategies to capture more upside. The TD Q Canadian Low Volatility ETF performed well amid sector corrections, particularly in Energy and cyclical stocks. Defensive sectors like Consumer Staples demonstrated strong, steady earnings growth and contributed positively to returns. While performance captures most investors' attention, the primary purpose of low volatility strategies is risk reduction. TD Q Canadian Low Volatility ETF achieved a 20–25% reduction in volatility (**Exhibit 2**) over all time periods and frequently outperformed the benchmark on a risk-adjusted (Sharpe ratio) basis.

## Exhibit 2: Volatility and Risk Adjusted Returns

		Annualized					Since Inception
Volatility as of June 30, 2025	Inception Date	1 yrs	2 yrs	3 yrs	4 yrs	5 yrs	
TD Q Canadian Low Volatility ETF	May 26-20	8.23%	8.99%	9.97%	10.03%	10.21%	10.18%
MSCI Canada Index		10.88%	11.18%	12.70%	12.94%	12.97%	12.87%
<b>Volatility Reduction</b>		<b>-24.4%</b>	<b>-19.6%</b>	<b>-21.5%</b>	<b>-22.5%</b>	<b>-21.3%</b>	<b>-20.9%</b>

							Since Inception
Sharpe Ratio as of June 30, 2025	Inception Date	1 yrs	2 yrs	3 yrs	4 yrs	5 yrs	
<b>Difference</b>							
TD Q Canadian Low Volatility ETF	May 26-20	2.97	1.34	0.74	0.76	1.08	1.03
MSCI Canada Index		2.10	1.32	0.93	0.57	0.93	0.96
<b>Difference</b>		<b>0.87</b>	<b>0.02</b>	<b>-0.19</b>	<b>0.19</b>	<b>0.15</b>	<b>0.07</b>

Note: Returns for periods over one year are annualized. Net of expenses. Numbers may not add due to rounding.

## Portfolio Construction: Balancing Growth with Lower Risk

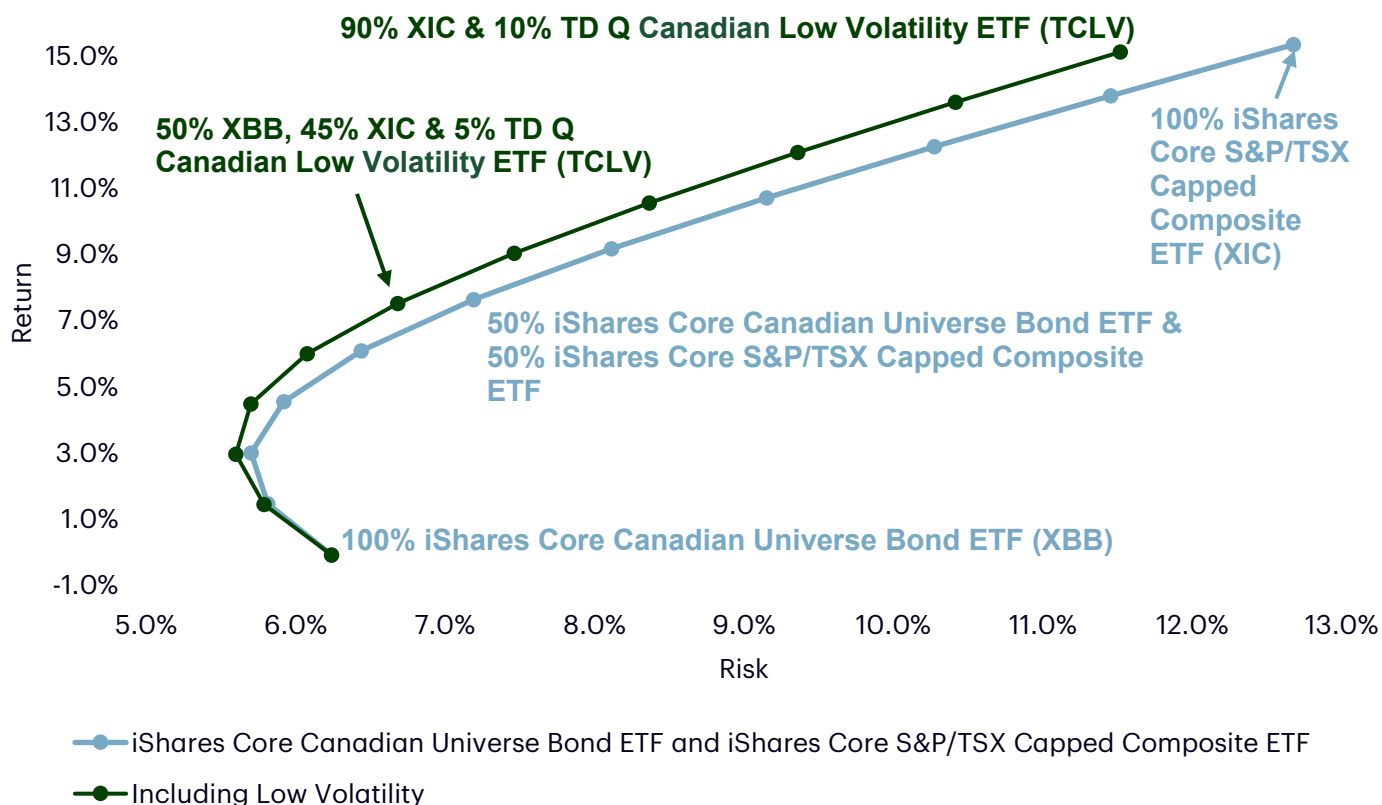
Pairing low volatility with traditional equity strategies can help enhance portfolio diversification and deliver more balanced returns. Although there is no single "correct" portfolio split, introducing low volatility equities in the equity component of a balanced portfolio can improve risk-adjusted performance. Even a modest allocation (as little as 10%) to low volatility strategies can meaningfully reduce portfolio risk with minimal impact on returns (**Exhibit 3**). The key is to capture the risk-reducing benefits of low volatility, especially for investors unconcerned with closely tracking a cap-weighted index.

In fact, a 50/50 split between Canadian bonds and Canadian low volatility equities produced less risk than an all-bond portfolio, a counterintuitive but effective result (**Exhibit 4**) that would be impossible to achieve with cap-weighted equities.

For investors who do not track the S&P/TSX Composite Index daily, for example, low volatility can serve as a "sleep better at night" substitute for cap-weighted equities, providing steadier returns and reduced drawdowns. For others who do actively monitor market performance, combining traditional cap-weighted equities with low volatility can taper portfolio volatility without sacrificing long-term growth.

Low volatility approaches outperformed purely cap-weighted strategies when judged by risk-adjusted returns, making them a rational choice for part of any well-diversified portfolio.

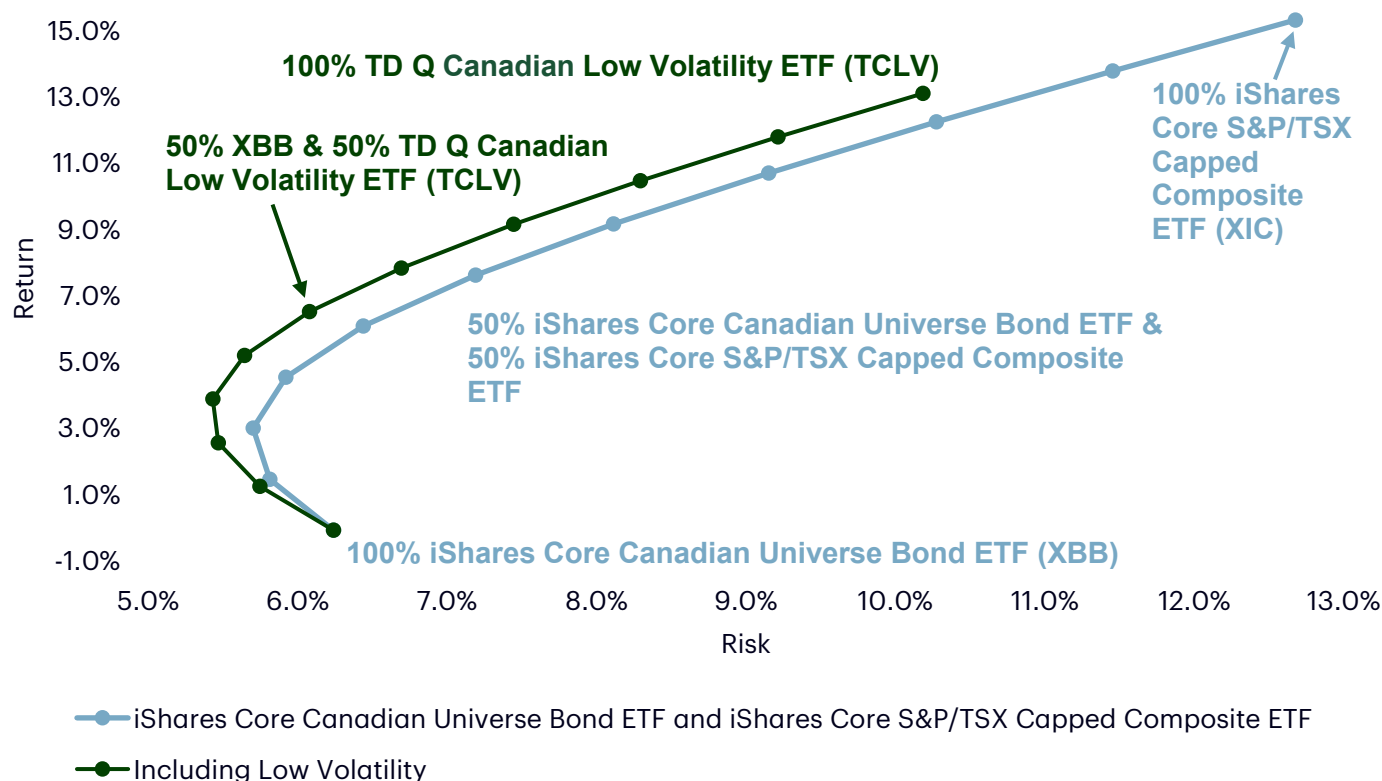
### Exhibit 3: 10% of Equity Weight in TD Q Canadian Low Volatility ETF Reduces Risk



Note: Returns for periods over one year are annualized. Net of expenses. Numbers may not add due to rounding.

Source: TD Asset Management Inc. As of June 30, 2025.

#### Exhibit 4: A 50% XBB & 50% TCLV portfolio is less risky than 100% XBB, but has better returns



Source: TD Asset Management Inc., Bloomberg<sup>1</sup> Data from June 30, 2020 (first full month after inception of TD Q Canadian Low Volatility ETF) to June 30, 2025.

#### Innovation Spotlight: Artificial Intelligence and Natural Language Processing

**The Quantitative team has begun the integration of artificial intelligence into both alpha generation and risk management.** The goal of TDAM's proprietary risk modeling framework, which integrates both fundamental (e.g., profitability, valuations, leverage, sector exposure) and statistical (e.g., volatilities, correlations among stocks) models is to identify and diversify across distinct "directions" of risk within the equity universe, which can help to minimize portfolio shocks and sector concentrations. The team has already deployed alpha models using machine learning built in collaboration with Layer 6, now in production for certain funds, and is preparing to extend these innovations to global strategies. The depth of those models distinguishes TDAM from competitors who may rely on more simplistic approaches or focus only on minimizing historical variance.

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