

THE MSCI RISK WEIGHTED INDEXES

An Approach to Combining Low Risk and Size Exposure

Index Marketing

June 2018

- The MSCI Risk Weighted Indexes are uniquely designed to reflect the low volatility and the smaller size effect
- The MSCI Risk Weighted Indexes employ a simple yet effective method to overweight low risk and smaller market cap stocks while maintaining broad market exposure
- The MSCI Risk Weighted Indexes can be replicated cost-effectively, used to benchmark low volatility managers, and in combination with other MSCI Factor Indexes

Why Do Investors Use Risk Weighted Strategies?

- Reduction of portfolio risk by about 10% over the long-term, with less drawdown than the broad market
- Historically, these strategies have yielded higher risk-adjusted returns
- To gain exposure to smaller size stocks, mostly mid-caps, while maintaining a structural bias towards less volatile stocks

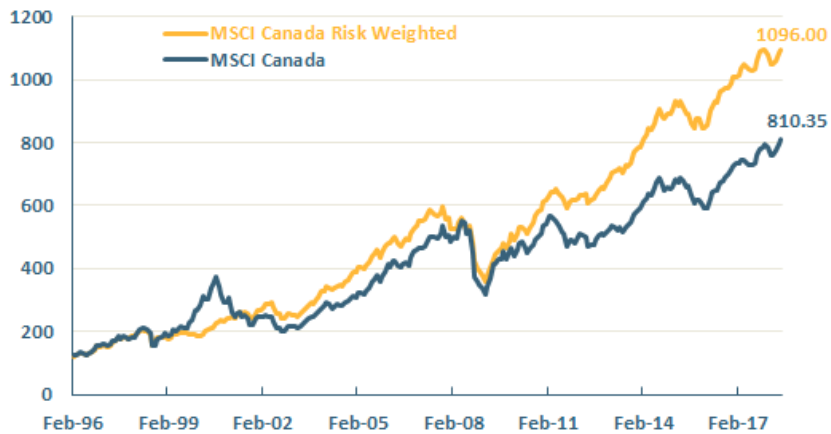
Key Characteristics of the MSCI Risk Weighted Indexes

- Effective and transparent risk reduction weighting via the inverse of realized variance
- Emphasis on low risk and smaller market cap stocks
- Number of constituents from the parent index is customizable (e.g., the top 200)
- Low annual index turnover
- High investability and replicability

Upside and Downside Capture

- The upside and downside capture ratios of a risk weighted index indicate how it has performed over periods of market strength and weakness relative to its parent index
- Since May 1994 through June 2018, the MSCI Canada Risk Weighted Index captured 74% of the positive returns of its parent
- Over the same period, the MSCI Canada Risk Weighted Index lost just 53% relative to the losses of the parent

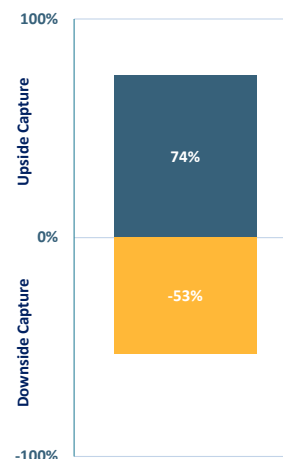
Performance Characteristics: Total Returns of the MSCI Canada Risk Weighted and MSCI Canada Indexes (CAD)—(May 1994 – June 2018)



Historical Gross Total, CAD	MSCI Canada	MSCI Canada Risk Weighted
Total Return* (%)	9.00	10.39
Return Risk* (%)	14.60	11.15
Risk Adjusted Return	0.62	0.93
Active Return* (%)	0.00	1.39
Tracking Error* (%)	0.00	8.66
Information Ratio	N/A	0.16

* Annualized from May 1994 to June 2018

Upside & Downside Capture: MSCI Canada Risk Weighted Index vs. MSCI Canada



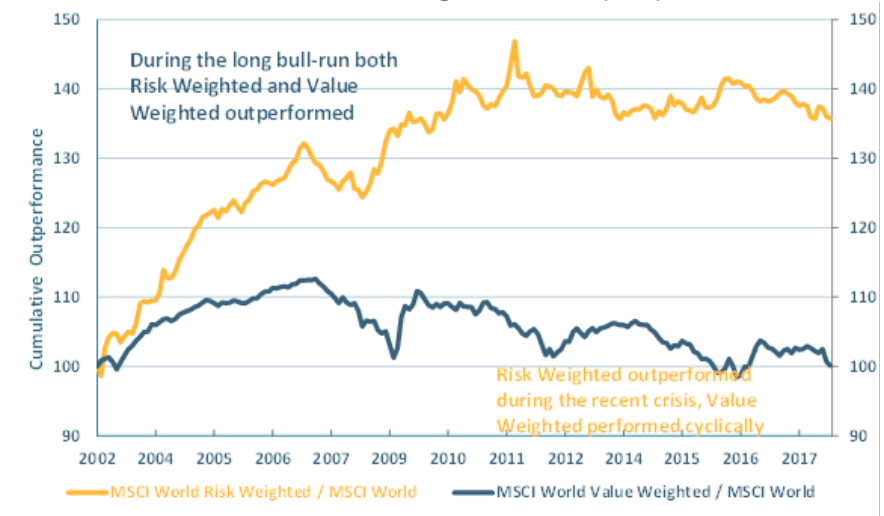
Standard Methodology Highlights

Parameter	Methodology	Comments
Universe	All constituents of the market cap-weighted parent index	Objective approach captures a broad opportunity set and ensures that MSCI Risk Weighted Indexes are highly investable and liquid Leverages the MSCI building block approach, avoiding gaps and overlaps
Variables	3-year historical variance	Objective measure that captures the variation of historical volatility
Weighting	Each constituent of the parent index is weighted by the inverse of its variance	No stock selection Effective and transparent risk reduction weighting
Rebalancing	Semi-annual	Timely data updates Consistent with MSCI rebalancing calendar

Combining MSCI Factor Indexes

- MSCI Risk Weighted, Value Weighted, Quality and other MSCI Factor Indexes have outperformed their cap-weighted parent indexes over long periods
- However, performance is cyclical: any strategy can underperform for long periods
- A higher level of diversification may be achieved by combining two or more of these MSCI Factor Indexes
- Combining these indexes into a portfolio may also reduce overall cost by exploiting natural internal “cross opportunities” at each rebalancing

Combining MSCI World Risk Weighted and Value Weighted Indexes (USD)



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