

THE MSCI RISK WEIGHTED INDEXES

AN APPROACH TO COMBINING LOW RISK AND SIZE EXPOSURE

- 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 used in combination with other MSCI Factor Indexes.

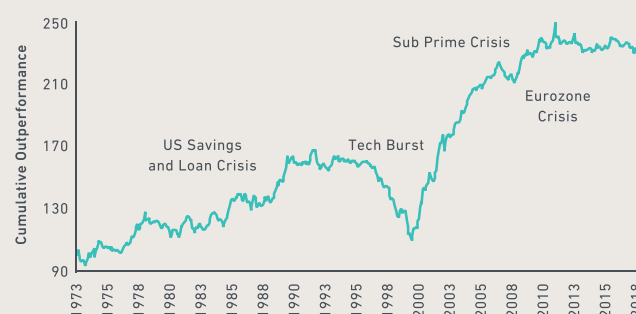
WHY DO INVESTORS USE RISK WEIGHTED STRATEGIES?

- 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
- Inclusion of all parent index constituents—no selection bias
- Low annual index turnover
- High investability and replicability

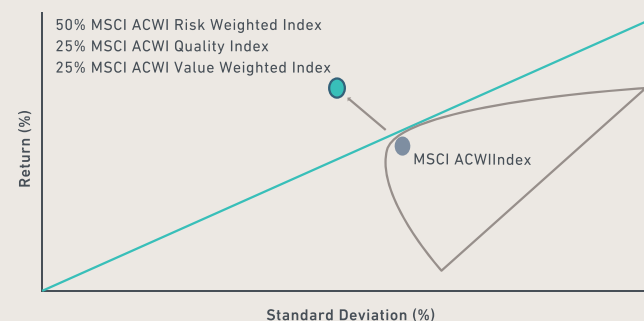
MSCI WORLD RISK WEIGHTED INDEX RELATIVE TO MSCI WORLD (USD)



Historical Gross Performance, USD	MSCI World	MSCI World Risk Weighted
Total Return* (%)	9.6	11.6
Total Risk* (%)	14.7	13.7
Risk Adjusted Return	0.65	0.85
Active Return* (%)	N/A	2.05
Tracking Error* (%)	N/A	5.44
Information Ratio	N/A	0.38

* Annualized from May 1973 to May 2018

MSCI RISK WEIGHTED INDEXES CAN HELP REDUCE RISK WITH HIGHER POTENTIAL RETURN



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 Risk Weighted Indexes are highly investable and liquid - Leverages the MSCI building block approach, avoiding gaps and overlaps
Variables	3 years historical variance	Objective measure that captures the variation of historical volatility
Weighting	Each parent index constituent 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

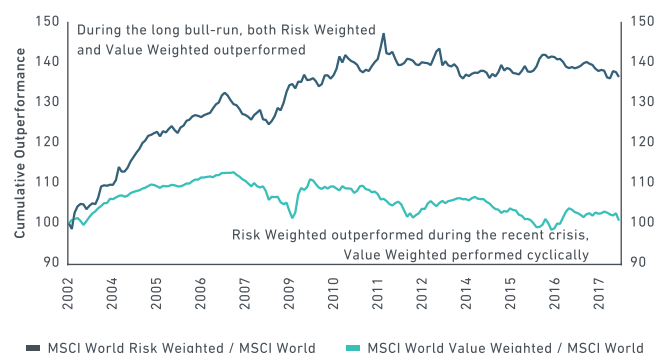
ILLUSTRATIVE USE CASE

- A North American pension plan adopted a passive approach to capture three factors: Low Volatility, Value and Quality
- The fund used a combination of 50% MSCI ACWI Risk Weighted, 25% MSCI ACWI Value Weighted and 25% MSCI ACWI Quality Indexes (see page 1)

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 factor 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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