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.**

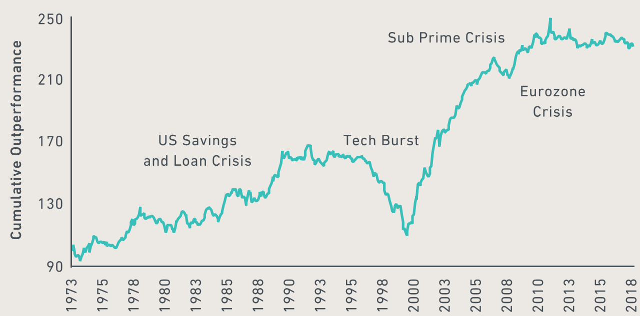
WHY DO INVESTORS USE RISK WEIGHTED STRATEGIES?

- 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

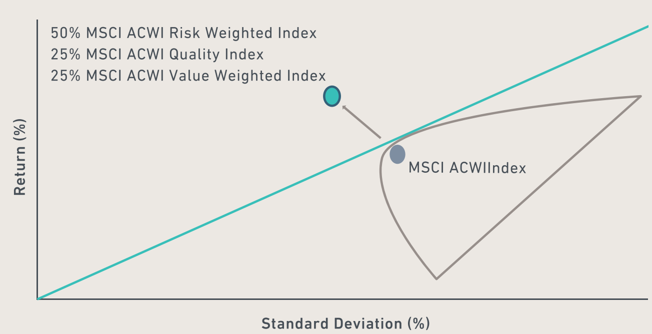
MSCI WORLD RISK WEIGHTED INDEX RELATIVE TO MSCI WORLD (USD)



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)