Insights
Smart Beta

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How Low Volatility Strategies Can Add Long-Term Value

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Investors typically allocate to low volatility strategies to reduce total volatility and receive downside protection in portfolios, with the added benefit of earning competitive returns over the long term. Our data shows that it is important for investors to look beyond short-term quarterly reporting periods to evaluate whether low volatility strategies perform as intended, as strong equity market backdrops have historically caused intermittent weakness in low volatility strategies — but only for short-term periods. In this paper, we review the performance of these indexes over the last 20 years.

In this piece, we use the MSCI Minimum Volatility family as a use case for low volatility strategies. The MSCI Minimum Volatility Indexes are constructed to minimize total risk; avoid unintended bets on countries, sectors, and styles; and provide superior risk-adjusted performance while maintaining the investability and replicability features of the parent cap-weighted indexes.

Low Volatility Performance Reviews Over Short- and Long-Term Periods

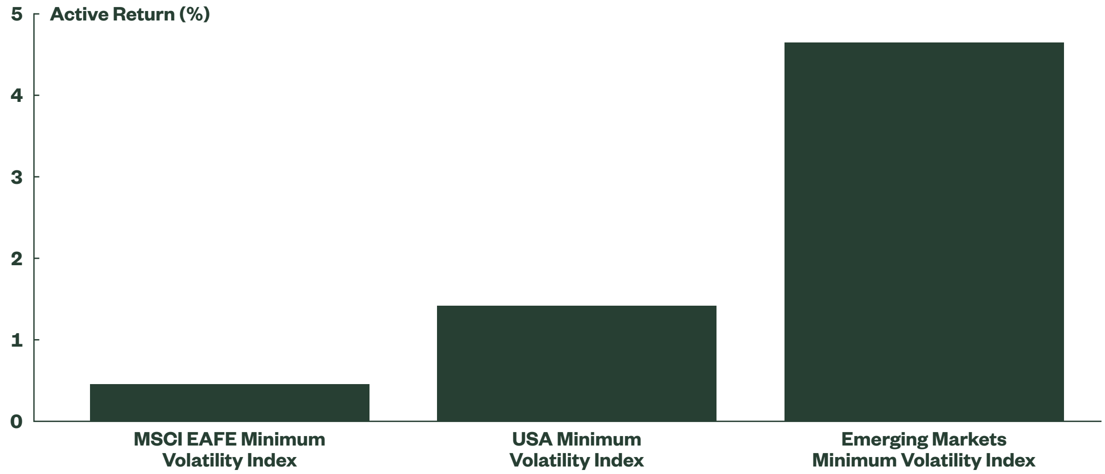
Calendar Year 2021

Developed Market stocks[1] finished 2021 with another impressive year, having posted their third consecutive year of double-digit gains (27.67% in 2019, 15.90% in 2020, and 21.82% in 2021)[2] thanks to a strong economic rebound that helped the market weather the ongoing tumult of the coronavirus pandemic. This strength was not the case for Emerging Markets, which returned -2.54% in 2021.[3] We observed that low volatility strategies underperformed their market cap benchmarks in developed markets, while the MSCI Emerging Markets Minimum Volatility Index outperformed the MSCI Emerging Markets Index in 2021, returning +5.55%.

First Calendar Quarter of 2022

Russia's late-February invasion of Ukraine reduced economic activity, amplified inflationary pressures and increased market volatility in Q1 2022. Defensive sectors such as Consumer Staples, Utilities, and Health Care held up relatively well during the quarter, as low-beta stocks outperformed high-beta. Low volatility strategies provided downside protection and outperformed the market cap index across regions in Q1 2022, as seen in the active return[4] data in Figure 1.

Figure 1
Minimum Volatility Indexes Outperformed in the Q1 2022 Equity Downturn



Source: MSCI, State Street Global Advisors, as of March 31, 2022.

A View of the Long-Term Data

Historical data reveals that low volatility strategies have delivered several benefits to portfolios over the last 20 years:

- Lower realized volatility[5]
- Downside protection during adverse market conditions
- Competitive returns over the long term

Lower Realized Volatility

Figure 2 shows the realized volatility of several indexes over various time periods. Since January 2001, all selected MSCI Minimum Volatility Indexes have experienced lower volatility than their respective market cap-weighted parent indexes for 3-, 5-, 10-, and 20-year periods. Figure 2 also illustrates that all three low volatility strategies realized risk reductions in the range of 21% to 31% for each stated period.

Figure 2
Low Volatility Construction Has Reduced Portfolio Risks Over 3-, 5-, 10-, and 20-Year Periods

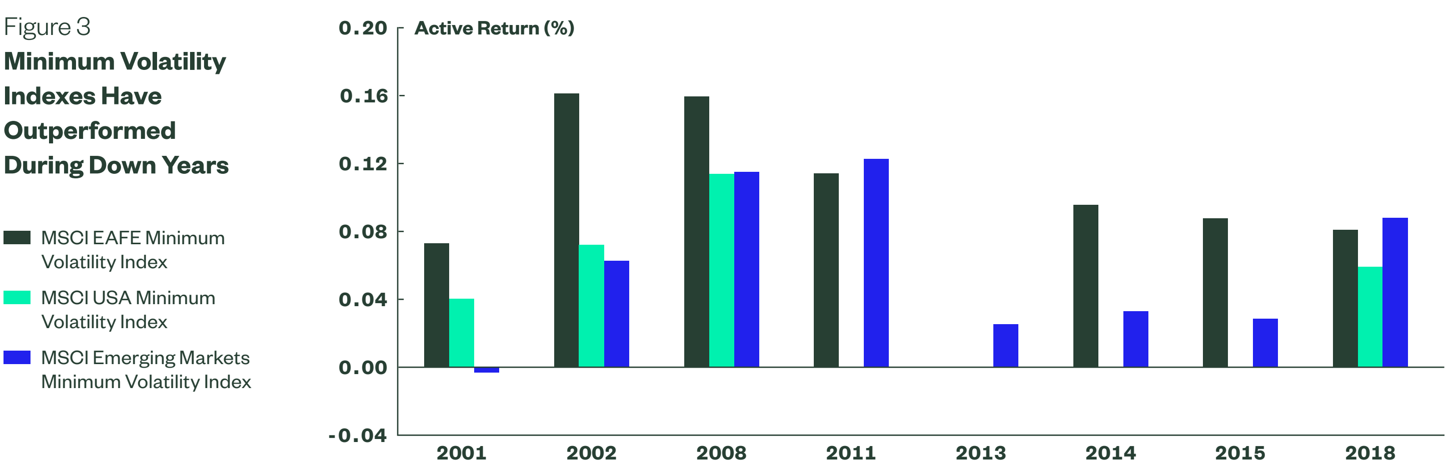
	MSCI EAFE Index (%)	MSCI EAFE Minimum Volatility Index (%)	MSCI USA Index (%)	MSCI USA Minimum Volatility Index (%)	MSCI EM Index (%)	MSCI EM Minimum Volatility Index (%)
Standard Deviation						
3-Year	17.23	12.22	18.14	15.43	18.28	13.58
5-Year	15.03	10.79	16.05	13.40	16.62	12.25
10-Year	14.09	10.61	13.42	11.24	15.94	12.20
20-Year	16.57	11.85	14.87	11.81	20.96	16.30
Risk Reduction						
3-Year	—	29.06	—	14.93	—	25.71
5-Year	—	28.17	—	16.52	—	26.29
10-Year	—	24.71	—	16.26	—	23.48
20-Year	—	28.47	—	20.59	—	22.22
Average Risk Reduction	—	27.60	—	17.08	—	24.43

Source: MSCI, State Street Global Advisors, as of March 31, 2022.

Downside Protection During Adverse Market Conditions

Figure 3 displays the down year returns of the parent and Minimum Volatility indices. These indices outperformed their respective market cap-weighted benchmarks in all down years except for one (2001, in which the EM Minimum Volatility was flat with its parent). Figure 4 illustrates that during most months, low volatility strategies provide added value, while Figure 5 shows the lower rate of drawdowns of low volatility strategies over the past 20 years.

Figure 3
Minimum Volatility Indexes Have Outperformed During Down Years



Source: MSCI, State Street Global Advisors, as of March 31, 2022.

Figure 4
Low Volatility Strategies Have Added Value in the Majority of Down Months Since 2000

	# of Months with Parent Index Experiencing Negative Return	# of Months with Minimum Volatility Value Add>0, and Parent Index Experiencing Negative Return	% of Months with Minimum Volatility Value Add>0, and Parent Index Experiencing Negative Return
MSCI EAFE Index	108	93	86
MSCI USA Index	85	65	76
MSCI Emerging Markets Index	106	92	87

Source: MSCI, State Street Global Advisors. Data beginning December 2000, ending March 2022.

Figure 5 shows that Minimum Volatility Strategies have had a lower rate of drawdowns over the past two decades, which indicates less downside risk than the index.

Figure 5
Minimum Volatility Indexes Have Had Lower Drawdowns Over the Past Two Decades

	MSCI EAFE Index (%)	MSCI EAFE Minimum Volatility Index (%)	MSCI USA Index (%)	MSCI USA Minimum Volatility Index (%)	MSCI Emerging Markets Index (%)	MSCI Emerging Markets Minimum Volatility Index (%)
Historical Drawdown	-27.30	-19.33	-24.01	-19.98	-36.15	-29.55

Source: MSCI, State Street Global Advisors. Period from December 2000 to March 2022.

Competitive Returns

Figure 6 provides the short- and long-term returns for the MSCI parent and low volatility family indexes. The low volatility strategies have generated competitive long-term returns over the last 10 years and since January 2001.

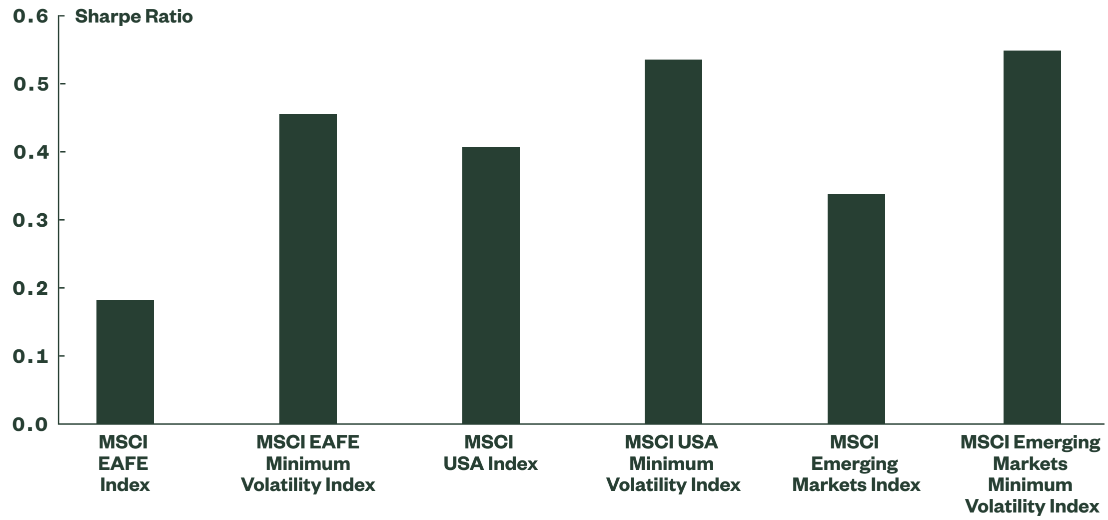
Figure 6
Low Volatility Strategies Have Earned Competitive Returns Relative to Benchmarks

	MSCI EAFE Index (%)	MSCI EAFE Minimum Volatility Index (%)	MSCI USA Index (%)	MSCI USA Minimum Volatility Index (%)	MSCI Emerging Markets Index (%)	MSCI Emerging Markets Minimum Volatility Index (%)
Return						
1 Month	0.64	0.72	3.48	5.44	-2.26	-0.73
3 Month	-5.91	-5.45	-5.31	-3.87	-6.97	-2.29
YTD	-5.91	-5.45	-5.31	-3.87	-6.97	-2.29
1 Year	1.16	1.97	13.64	13.30	-11.37	0.30
3 Years	7.78	3.14	18.49	11.18	4.94	4.32
5 Years	3.81	2.14	12.60	9.57	1.36	2.19
10 Years	6.27	6.37	13.97	12.27	3.36	3.69
Since Jan 2001	4.45	6.83	7.47	7.75	8.50	10.37

Source: MSCI, State Street Global Advisors, as of March 31, 2022.

The positive active return since January 2001, along with the lower realized volatility for the same period, has led to higher risk-adjusted returns for all the low volatility strategies (Figure 7).

Figure 7
Minimum Volatility Indexes Have Shown Higher Sharpe Ratios Since 2001



Source: MSCI, State Street Global Advisors. Risk-free rate is proxied by the Bank of America Merrill Lynch 3-Month Treasury Bill Index. Data from January 2001 to March 2022.

Conclusion

Based on historical data, investors who are deterred by short-term return variability between a low volatility strategy and the parent benchmark could miss out on both short- and long-term volatility reduction and downside protection, as well as longer-term return benefits. As with any investment strategy, its success should only be evaluated within the appropriate time horizon.

Over the last 20 years, low volatility strategies have indeed succeeded on delivering their stated objectives of downside protection, total volatility reduction, and long-term competitive returns.

Endnotes

1 Developed market stocks proxy is the MSCI World Index.

2 MSCI, as of March 31, 2022. Past performance is not a reliable indicator of future performance. This information should not be considered a recommendation to invest in a particular sector. It is not known whether the sectors shown will be profitable in the future.

3 Emerging market stocks proxy is the MSCI Emerging Markets Index. Past performance is not a reliable indicator of future performance. This information should not be considered a recommendation to invest in a particular sector. It is not known whether the sectors shown will be profitable in the future.

4 Active return: Return of each minimum volatility index in excess of its market cap benchmark.

5 Realized volatility is measured as the index's standard deviation of monthly returns.

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* Pensions & Investments Research Center, as of December 31, 2020.
† This figure is presented as of March 31, 2022 and includes approximately $73.35 billion USD of assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated.

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