MSCI

FACTOR

Focus: Momentum

VALUE SIZE MOMENTUM QUALITY YIELD VOLATILITY GROWTH LIQUIDITY

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Factor focus: **Momentum**

In the realm of investing, a factor is any characteristic that helps explain the long-term risk and return performance of an asset. MSCI Factor Indexes are designed to capture the return of factors which have historically demonstrated excess market returns over the long run.

MSCI Factor Indexes are rules-based, transparent indexes targeting stocks with favorable factor characteristics – as backed by robust academic findings and empirical results – and are designed for simple implementation, replicability, and use for both traditional indexed and active mandates.

Defining Momentum

The Momentum factor refers to the tendency of winning stocks to continue performing well in the near term. Momentum is categorized as a "persistence" factor i.e., it tends to benefit from continued trends in markets (see "Performance and Implementation").

The MSCI Momentum Index measures:

- **Risk-adjusted excess return –** which exceeds the benchmark – for 6-month periods
- **Risk-adjusted excess return –** which exceeds the benchmark – for 12-month periods

Why investors have used momentum strategies

Academics first identified the momentum premium in 1993, when UCLA scholars Narasimhan Jegadeesh and Sheridan Titman demonstrated that the strategy of buying stocks that have done well and selling stocks that have done poorly generated significant positive returns over 3- to 12-month holding periods.

Many studies since then have found the momentum factor present across equity sectors, countries, and more broadly asset classes.[1] Momentum may not be as well understood as other factors, although various theories attempt to explain it. Some postulate that it is compensation for bearing high risk; others believe it may be a consequence of market inefficiencies produced by delayed price reactions to firm-specific information.[2]

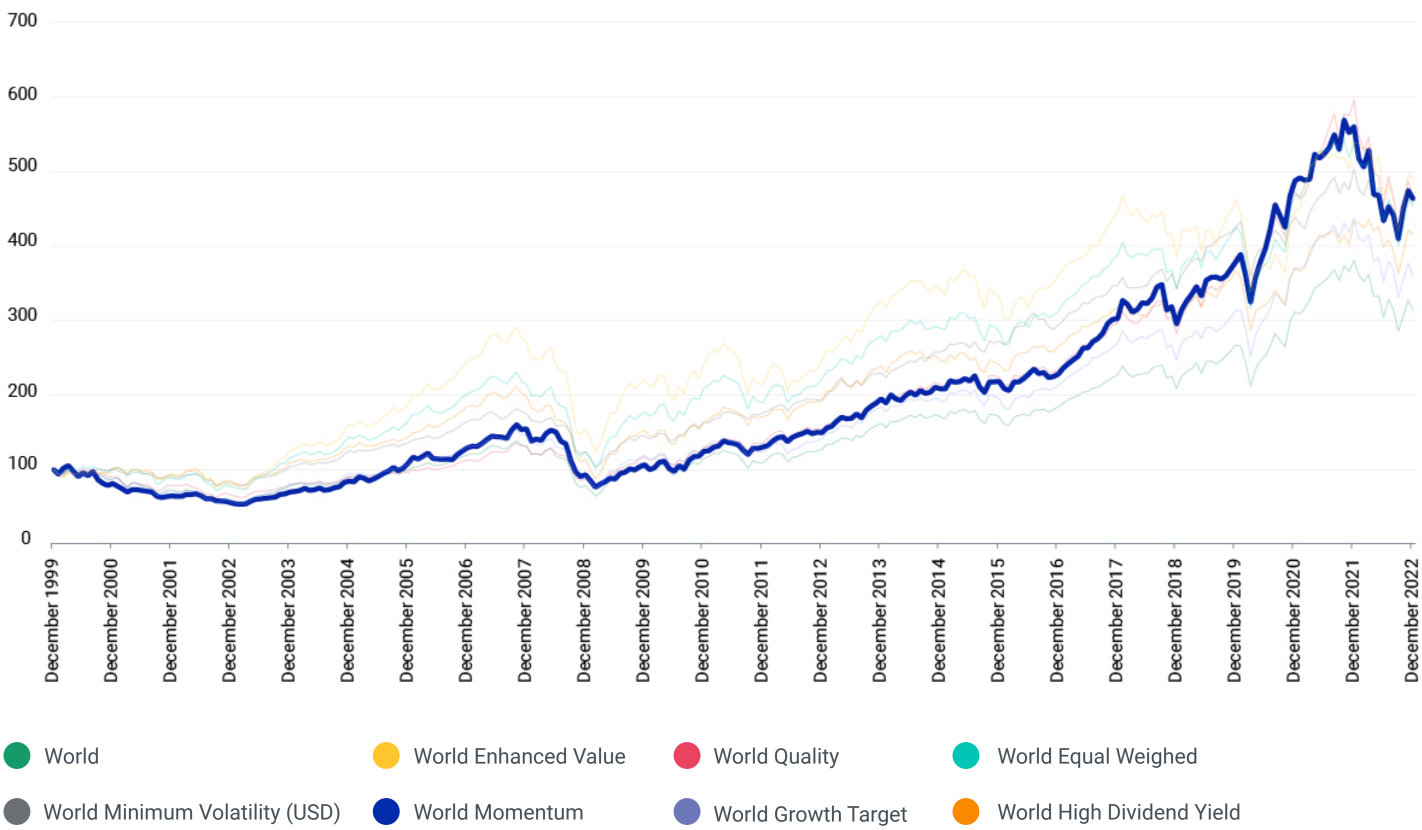
MSCI research shows, on a historical basis, the momentum factor has been one of the strongest generators of excess returns and has typically outperformed in a macro environment characterized by a long cycle in underlying market trends.

Performance &
implementation

Portfolio managers usually implement momentum by choosing stocks based upon their performance over the previous three to 12 months, omitting the most recent month to allow for short-term reversal effects.

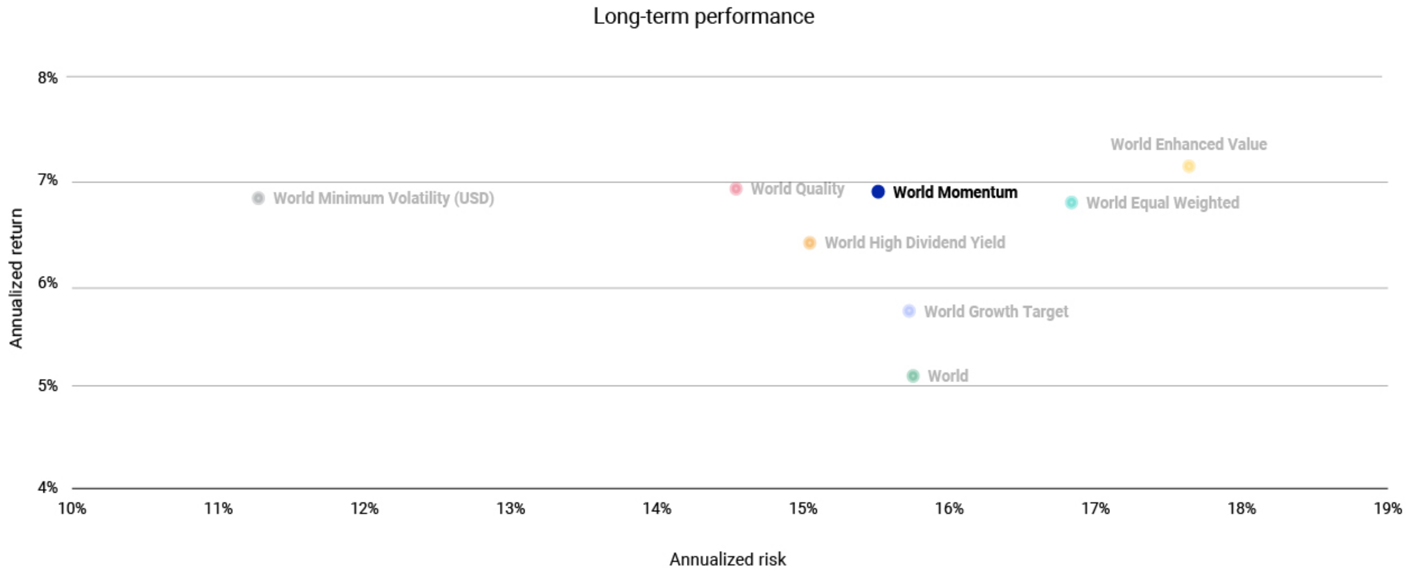
MSCI World Factor Indexes

Over time, individual factors have delivered outperformance relative to the market.



The MSCI World Momentum Index has historically generated excess returns over the long run with a 1.8% annual return over the MSCI World Index since 1999 as represented above.

Long-term performance: December 1999 - December 2022



Although factor strategies have exhibited long-term outperformance, in the short-term, factor performance has been cyclical and has generated periods of underperformance.

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How factors have performed relative to each other:

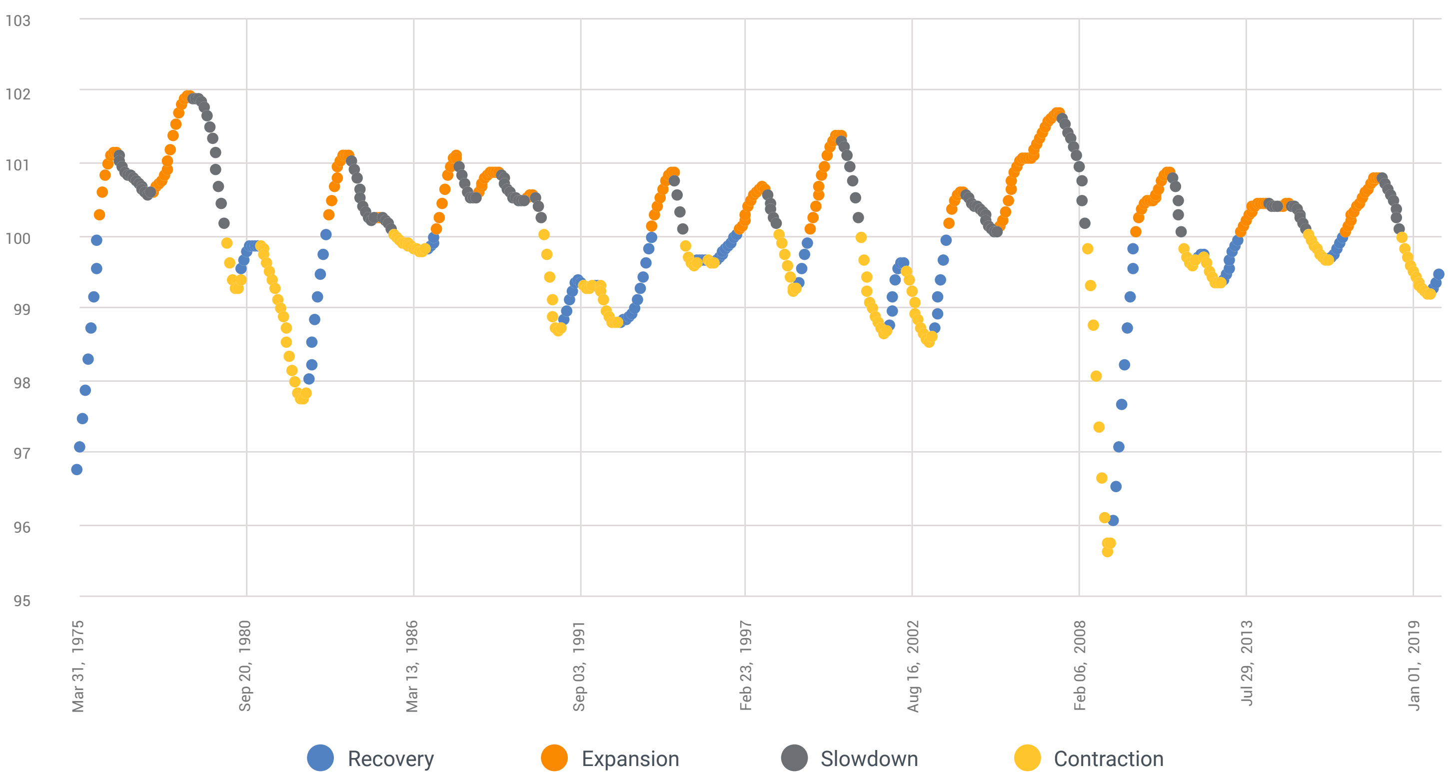
Momentum

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1.5%	-4.5%	-9.6%	56.7%	28.6%	28.4%	31.0%	19.9%	-29.2%	42.0%	18.2%	8.0%	16.7%	32.7%	12.1%	5.8%	10.3%	32.6%	-1.4%	36.7%	28.7%	26.1%	-3.9%
1.2%	-8.0%	-9.8%	50.4%	24.1%	17.2%	28.9%	16.8%	-33.5%	41.9%	16.5%	4.8%	16.5%	30.7%	9.0%	4.5%	9.4%	26.6%	-2.4%	28.4%	22.7%	22.3%	-9.2%
0.3%	-10.0%	-13.6%	40.1%	21.3%	15.2%	22.1%	11.4%	-37.8%	33.8%	12.8%	4.8%	15.0%	30.3%	7.0%	4.2%	8.9%	26.6%	-5.1%	28.3%	18.1%	20.8%	-9.3%
-2.1%	-11.5%	-14.4%	33.8%	20.8%	12.5%	21.8%	10.3%	-39.9%	33.5%	12.3%	4.4%	14.8%	27.7%	5.5%	1.2%	8.9%	23.9%	-6.7%	27.4%	16.5%	18.2%	-16.4%
-10.2%	-12.1%	-15.1%	30.5%	20.0%	10.0%	21.2%	9.6%	-40.3%	31.9%	11.4%	-5.0%	14.7%	27.4%	4.6%	-0.3%	8.2%	23.1%	-8.2%	24.5%	10.1%	16.8%	-17.3%
-12.5%	-16.5%	-16.5%	26.0%	19.3%	8.5%	20.7%	7.3%	-41.9%	30.8%	9.3%	-5.4%	13.7%	26.5%	4.6%	-1.0%	8.2%	22.9%	-8.5%	24.3%	3.3%	15.4%	-17.7%
-12.9%	-19.4%	-19.4%	25.9%	15.2%	8.3%	19.1%	6.4%	-42.4%	17.2%	9.1%	-9.3%	13.3%	22.9%	3.4%	-2.4%	5.1%	19.2%	-11.8%	24.0%	1.0%	15.0%	-17.8%
-18.9%	-20.5%	-19.5%	22.0%	12.7%	6.0%	16.8%	6.1%	-42.6%	14.8%	7.2%	-11.0%	8.9%	19.4%	3.3%	-2.7%	4.7%	18.0%	-13.4%	19.8%	-3.3%	14.8%	-21.9%

- World
- World Enhanced Value
- World Quality
- World Equal Weighed
- World Minimum Volatility (USD)
- World Momentum
- World Growth Target
- World High Dividend Yield

The analysis and observations in this report are limited solely to the period of the relevant historical data, backtest or simulation. Past performance — whether actual, back tested or simulated — is no indication or guarantee of future performance. None of the information or analysis herein is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision or asset allocation and should not be relied on as such. The time periods covered in the charts in this paper were dictated by the data available when we conducted the simulations which produced them. There are frequently material differences between backtested or simulated performance results and actual results subsequently achieved by any investment strategy.

Macro effects on **factor performance**



In general, factor performance has been cyclical in nature. Individual factors have been shown to outperform during different macroeconomic environments.

Conclusion

The momentum factor historically has produced long-term excess return, and several studies show that it has been present across asset classes, markets, sectors and industries. However, momentum strategies have sometimes been plagued by crashes and investability constraints. MSCI has developed a momentum index designed to target securities based on risk-adjusted performance, with the goal of mitigating momentum crashes and reducing unnecessary turnover.

Footnotes

1 Moskowitz, T.J. and M. Grinblatt. (1999). "Do Industries Explain Momentum?" Journal of Finance, Vol. 54, No. 4, pp. 1249–1290.

2 Jegadeesh, N. and S. Titman. (1993). "Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency." Journal of Finance, Vol. 48, No. 1, pp. 65–91.

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www.msci.com/factor-investing

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