Factor behaviours during corrections and recoveries: Portfolio ideas to navigate through volatile markets

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KEY TAKEAWAYS

- Historically, equity style factors have exhibited different return profiles during drawdown and recovery periods.
- In the drawdown phase, defensive factors such as low volatility, dividend yield and quality tend to outperform the broad market.
- In the recovery phase, the size and value factors tend to outperform the broad market.
- Timing the market is difficult: consider diversified portfolio mixes that can help mitigate downside risk while participating on the upside.

Introduction

The S&P 500 Index peaked on February 19, 2020, as the global COVID-19 pandemic became a market reality, ending arguably the longest bull market in history, which had begun after the global financial crisis in 2008. Tack on a supply shock to the oil market, and the world was faced with a global supply-and-demand shock, something that hadn't been seen in recent history. What ensued in global capital markets after February 19, 2020, was an extremely sharp correction; for example, the S&P 500 Index returned -23.5% (in U.S. dollars) in 30 trading days through March 31, 2020.[1] These corrections across the globe can be broadly categorized as market uncertainty. Many questions remain: although markets have nearly recovered from their troughs, it is still unclear what the future holds.

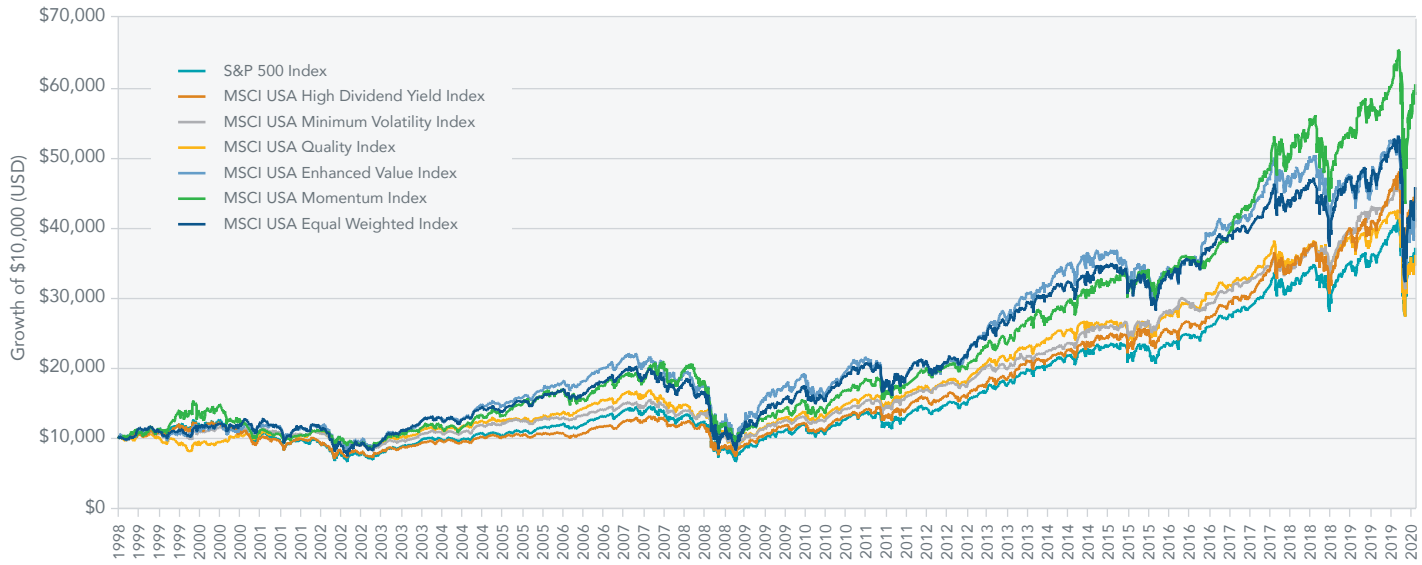
During this time, investors may have experienced the whole gamut of emotions, ranging from fear and panic to hope, optimism and maybe even euphoria. Rational questions to ask during these unprecedented times include "How is my portfolio positioned to mitigate additional downside risk?" or "How can I position my portfolio to participate in the recovery?" We all know markets go up and down, recessions come and go, and that if you have a long-term time horizon there are ways to achieve strong risk-adjusted returns in all environments.

In this paper, we seek to answer these questions from the perspective of equity style factors, such as dividend yield, low volatility, quality, value, momentum and size. Investors all have different objectives, and accordingly their portfolios can consist of a range of securities, with fixed income as well as different asset allocations. Equity style factors, which have been empirically researched for many years, can play an especially important part in helping investors achieve their specific investment objectives.

1 Source: Bloomberg, as at March 31, 2020.

First, these factors have all proven to outperform the broad market over the long term.

EXHIBIT 1: Excess return of factors



Source: Bloomberg, as at May 29, 2020. MSCI USA Factor Indexes used to illustrate factor performance. All returns in U.S. dollars. See Index Definitions for details.

Investors tend to be opportunistic, especially when it comes to managing their portfolios through shorter-term market corrections and recoveries. The remainder of this paper will outline our findings on the behaviour of equity style factors during these shorter-term time periods.

Factor performance during the drawdown phase

Looking back to 2000, there were six occasions when the S&P 500 Index experienced a drawdown of 10% or more, including the current correction. Exhibit 2 below highlights the performance of the broad market and of the factors during those periods.

EXHIBIT 2: Factor performance in corrections

	S&P 500	DIVIDEND YIELD	LOW VOLATILITY	QUALITY	VALUE	MOMENTUM	SIZE
Dot-com bubble crash	-47.38%	-11.08%	-25.70%	-41.62%	-31.04%	-42.49%	-35.41%
Subprime mortgage crisis	-55.25%	-55.92%	-48.63%	-44.46%	-59.16%	-54.79%	-59.68%
U.S. debt rating downgrade	-18.64%	-12.50%	-8.59%	-11.73%	-25.85%	-15.54%	-22.71%
Chinese yuan downgrade	-12.96%	-7.15%	-3.92%	-9.69%	-18.65%	-11.52%	-17.51%
2018 global recession scare	-19.36%	-15.21%	-12.64%	-19.40%	-22.40%	-21.13%	-20.72%
COVID-19 pandemic	-33.79%	-35.33%	-33.12%	-30.77%	-38.78%	-33.84%	-39.36%

Source: Bloomberg, as at May 29, 2020. MSCI USA Factor Indexes used to illustrate factor performance. All returns in U.S. dollars. See Methodology and Index Definitions for details.

What's interesting to note here is that factor performance can vary depending on the market environment; not every correction is the same, and the catalysts are often different. However, on average, defensive factors such as low volatility, dividend yield and quality typically outperform, as shown in Exhibit 3 below.

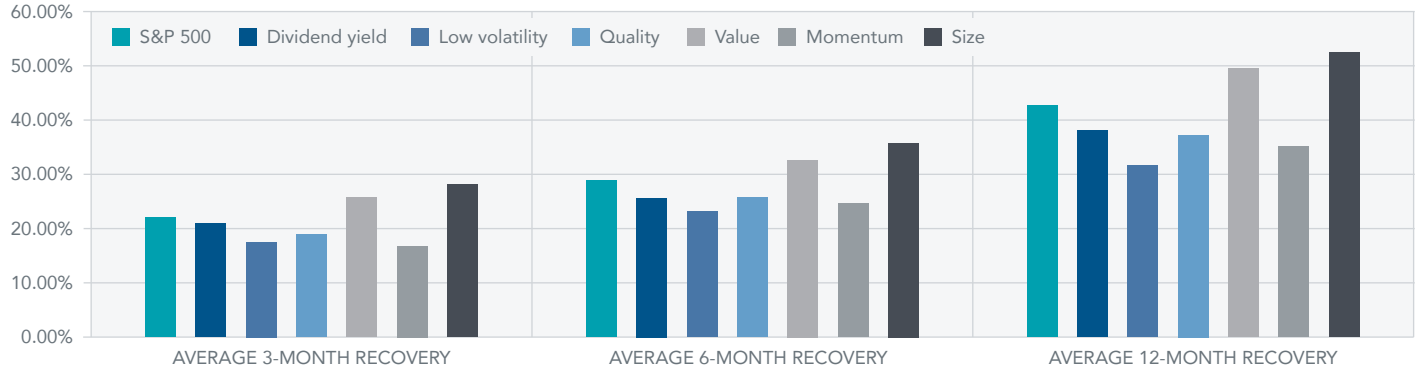
EXHIBIT 3: Average factor performance in corrections

Source: Bloomberg, as at May 29, 2020. MSCI USA Factor Indices used to illustrate factor performance. All returns in USD. See Index Definitions for details.

(Re)positioning for the recovery

As markets rebound from the lows, all of the factors participate in the rally, but to differing degrees. Exhibit 4 below highlights average performance three, six and 12 months after the lows.

EXHIBIT 4: Average factor performance in recoveries



Source: Bloomberg, as of May 29, 2020. MSCI USA Factor Indices used to illustrate factor performance. All returns in USD. See Index Definitions for details.

What's notable here is that on average, size and value tend to outperform the broad market in the three-, six- and 12-month periods following the trough of the corrections. The rationale is that small-cap stocks tend to underperform during a correction and then outperform during the recovery, because they have additional risk associated with them, compared with large-cap stocks, and therefore tend to fare well when investor risk appetite increases during the recovery phase. Value stocks generally outperform in the recovery as economic growth turns positive; inexpensive or beaten-down stocks do well in this scenario.

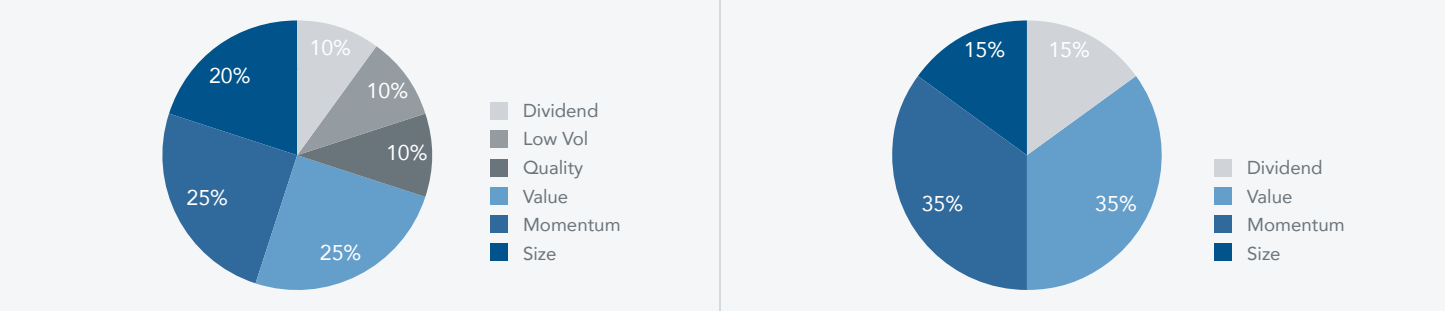
However, to benefit from the analysis above, investors would have to be able to time the market from peak to trough, and from trough to recovery. We all know that is a very difficult thing to do, especially with any consistency. So how can investors create portfolios using these factors in such a way as to mitigate downside risk, and at the same time participate in recoveries – without having to time the market?

Portfolio construction ideas

Two portfolio mixes that use Fidelity Factor Indexes, as shown below, can help investors maintain diversification, mitigate downside risk and participate on the upside during market corrections and recoveries.

PORTFOLIO 1: 10% dividend yield, 10% low volatility, 10% quality, 25% value, 25% momentum, 20% size

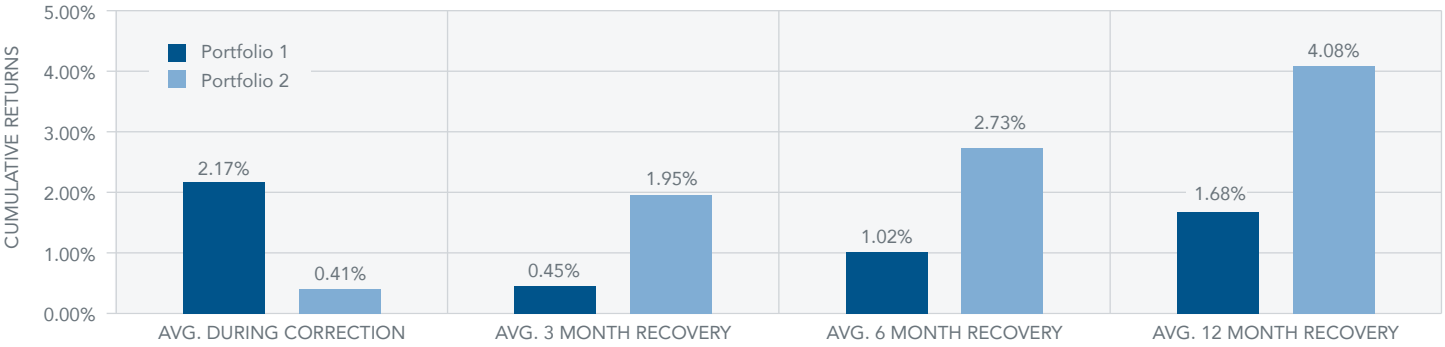
PORTFOLIO 2: 15% dividend yield, 35% value, 35% momentum, 15% size



These mixes are optimized based on the five recovery periods analyzed earlier. Portfolio 1 has a 10% minimum allocation constraint to ensure exposure to all six factors, while Portfolio 2 has no minimum allocation constraint.

Exhibit 5 below summarizes the average excess return of these portfolios in corrections and recoveries.

EXHIBIT 5: Average excess portfolio return



Source: Bloomberg, as at May 29, 2020. Past performance is no guarantee of future results. The above chart is for illustrative purposes only and does not represent actual or future performance of any investment option or strategy. Excess returns are relative to the broader market (S&P 500 Index). See Methodology for more details.

As shown in the chart, Portfolio 1 allows for outperformance in the correction phase, with allocations to low volatility and quality factors that tend to provide downside protection during market corrections. During the recovery phase, because this portfolio has exposure to factors that may underperform in the market recovery phase, it allows for moderate upside participation.

Portfolio 2, however, allows for both downside risk mitigation in the correction phase and outperformance in the recovery phase. Compared with Portfolio 1, it has removed the allocations to quality and low volatility and added exposure to both value and momentum. As a result, it is more aggressively positioned to capitalize on upside participation in market recoveries, while sacrificing downside protection in market corrections.

These two portfolio mixes offer clues for investors seeking to create diversified portfolios to capture the benefits of factors, but these strategies must also be considered in conjunction with overall portfolio asset allocation.

Concluding remarks

Equity style factors can help investors achieve their investment objectives in various market environments through opportunistic or strategic exposures. Every market correction and subsequent recovery is different and driven by different underlying catalysts. However, our research shows that defensive factors such as low volatility, dividend yield and quality tend to outperform the broad market in the drawdown phase, while the size and value factors tend to outperform in the recovery phase. For investors seeking more strategic exposures, we have offered two factor portfolio allocation ideas using optimization techniques that can help mitigate downside risk while participating in market recoveries.

Appendix

		DOT-COM BUBBLE CRASH	SUBPRIME MORTGAGE CRISIS	U.S. DEBT RATING DOWNGRADE	CHINESE YUAN DOWNGRADE	2018 GLOBAL RECESSION SCARE
Three-month recovery cumulative return	S&P 500	19.97%	40.18%	16.87%	13.48%	19.66%
	Dividend yield	18.82%	43.07%	15.86%	12.16%	14.66%
	Low volatility	13.75%	32.05%	13.02%	11.80%	16.98%
	Quality	13.73%	34.41%	13.57%	10.46%	22.69%
	Value	24.52%	55.28%	19.59%	14.12%	15.39%
	Momentum	7.58%	29.77%	13.14%	13.35%	20.15%
	Size	29.55%	55.74%	17.87%	17.25%	20.17%
Six-month recovery cumulative return	S&P 500	12.54%	54.56%	30.06%	20.81%	26.57%
	Dividend yield	10.82%	57.27%	21.82%	19.04%	19.18%
	Low volatility	6.10%	44.57%	20.35%	18.26%	26.19%
	Quality	7.65%	44.88%	28.02%	17.45%	30.73%
	Value	11.91%	80.04%	32.12%	22.18%	16.97%
	Momentum	3.83%	41.72%	27.16%	20.74%	29.96%
	Size	20.24%	75.18%	31.89%	25.69%	25.96%
12-month recovery cumulative return	S&P 500	36.16%	72.29%	35.01%	30.06%	39.89%
	Dividend yield	28.66%	75.37%	29.08%	27.01%	30.00%
	Low volatility	20.03%	58.18%	27.62%	19.10%	33.39%
	Quality	23.13%	60.48%	30.75%	24.06%	47.81%
	Value	40.07%	102.79%	32.00%	38.88%	33.83%
	Momentum	24.82%	57.54%	32.91%	23.58%	36.93%
	Size	56.00%	100.78%	32.62%	35.89%	37.29%

Source: Bloomberg, as at May 29, 2020. MSCI USA Factor Indexes used to illustrate factor performance. All returns in U.S. dollars. See Index Definitions for details.

Methodology

General factor performance is represented by the MSCI USA Factor Indexes. Dividend returns are based on the MSCI USA High Dividend Yield Index, low volatility returns are based on the MSCI USA Minimum Volatility Index, quality returns are based on the MSCI USA Quality Index, value returns are based on the MSCI USA Enhanced Value Index, momentum returns are based on the MSCI USA Momentum Index and size returns are based on the MSCI USA Equal Weighted Index. Excess returns are relative to the S&P 500 Total Return Index.

The correction time periods studied are defined based on the peak-to-trough index levels of the S&P 500 Total Return Index. The dot-com bubble crash is defined as the period between March 24, 2000, and October 9, 2002. The subprime mortgage crisis is defined as the period between October 9, 2007, and March 9, 2009. The U.S. debt rating downgrade is defined as the period between April 29, 2011, and October 3, 2011. The Chinese yuan downgrade is defined as the period between July 20, 2015, and February 11, 2016. The 2018 global recession scare is defined as the period between September 20, 2018, and December 24, 2018. The COVID-19 pandemic is defined as the period between February 19, 2020, and March 23, 2020.

All factor portfolio returns shown are weighted based on the previously outlined weightings and are rebalanced semi-annually on the last day of June and December each year, based on a portfolio inception date of January 1, 1999. Factor portfolios and indexes assume the reinvestment of dividends and exclude fees, taxes or other implementation costs. For the factor portfolios, dividend returns are based on the Fidelity Canada U.S. High Dividend Currency Neutral Index. Low volatility returns are based on the Fidelity Canada U.S. Low Volatility Currency Neutral Index. Quality returns are based on the Fidelity Canada U.S. High Quality Currency Neutral Index. Value returns are based on the Fidelity Canada U.S. Value Currency Neutral Index. Momentum returns are based on the Fidelity Canada U.S. Momentum Currency Neutral Index. Size returns are based on the Fidelity Small-Mid Factor Index. Excess returns are relative to the S&P 500 Total Return Index.

Index definitions

The S&P 500 Index is a market capitalization-weighted index designed to measure the performance of the large-cap segment of the U.S. equity market.

The MSCI USA High Dividend Yield Index is based on the MSCI USA Index, its parent index, and includes large- and mid-cap stocks. The Index is designed to reflect the performance of equities in the parent index (excluding REITs) with sustainable and persistently higher-than-average dividend yields and better-than-average quality characteristics. The Index also applies quality screens and reviews 12-month past performance to omit the stocks of companies with potentially deteriorating fundamentals that could force them to cut or reduce dividends.

The MSCI USA Minimum Volatility (USD) Index aims to reflect the performance characteristics of a minimum variance strategy applied to the large- and mid-cap U.S. equity universe. The Index is calculated by optimizing the MSCI USA Index, its parent index, in U.S. dollars for the lowest absolute risk (within a given set of constraints). Historically, the Index has shown lower beta and volatility characteristics than the MSCI USA Index.

The MSCI USA Quality Index is based on the MSCI USA Index, its parent index, which includes large- and mid-cap stocks in the U.S. equity market. The Index aims to capture the performance of quality growth stocks by identifying stocks with high quality scores based on three main fundamental variables: high return on equity (ROE), stable year-over-year earnings growth and low financial leverage.

The MSCI USA Enhanced Value Index captures large- and mid-cap representation across the U.S. equity markets exhibiting overall value style characteristics. The Index is designed to represent the performance of securities that exhibit higher value characteristics than their peers in the corresponding GICS sector. The value investment style characteristics for index construction are defined using three variables: price-to-book value, price-to-forward earnings and enterprise value-to-cash flow from operations.

The MSCI USA Momentum Index is based on MSCI USA Index, its parent index, which captures large- and mid-cap stocks in the U.S. market. It is designed to reflect the performance of an equity momentum strategy by emphasizing stocks with high price momentum, while maintaining reasonably high trading liquidity, investment capacity and moderate Index turnover.

The MSCI USA Equal Weighted Index represents an alternative weighting scheme to its market cap-weighted parent index, the MSCI USA Index. The Index includes the same constituents as its parent (large- and mid-cap securities from U.S. markets). However, at each quarterly rebalancing date, all Index constituents are weighted equally, effectively removing the influence of each constituent's current price (high or low). Between rebalancing's, Index constituent weightings will fluctuate due to price performance.

The Fidelity Canada U.S. High Dividend Currency Neutral Index is designed to reflect the performance of stocks of large- and mid-capitalization U.S. dividend-paying companies that are expected to continue to pay and grow their dividends.

The Fidelity Canada U.S. Low Volatility Currency Neutral Index is designed to reflect the performance of stocks of large- and mid-capitalization stocks with lower volatility than the broader U.S. equity market.

The Fidelity Canada U.S. High Quality Currency Neutral Index is designed to reflect the performance of stocks of large- and mid-capitalization U.S. companies with a higher quality profile than the broader U.S. equity market.

The Fidelity Canada U.S. Value Currency Neutral Index is designed to reflect the performance of stocks of large- and mid-capitalization U.S. companies that have attractive valuations.

Fidelity Canada U.S. Momentum Currency Neutral Index is designed to reflect the performance of stocks of large- and mid-capitalization U.S. companies that exhibit positive momentum signals.

The Fidelity Small-Mid Factor Index is designed to reflect the performance of stocks of mid- and small-capitalization U.S. companies with attractive valuations, high quality profiles, positive momentum signals and lower volatility than the broader market.

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The Fidelity Canada U.S. High Dividend Currency Neutral Index was launched on August 27, 2018, the Fidelity Canada U.S. Low Volatility Currency Neutral Index was launched on January 3, 2019, the Fidelity Canada U.S. High Quality Currency Neutral Index was launched on January 8, 2019, the Fidelity Canada U.S. Value Currency Neutral Index was launched on May 11, 2020, the Fidelity Canada U.S. Momentum Currency Neutral Index was launched on May 18, 2020, and the Fidelity Small-Mid Factor Index was launched on December 17, 2018. Data prior to the launch date are back-tested data (that is, calculations of how the Indexes might have performed over that time period had the Indexes existed). There could be material differences between back-tested performance and actual results. Past performance, whether actual or back-tested, is not a guarantee of future results. All returns are in Canadian dollars. While the ETFs aim to track as closely as possible the returns of their respective Indexes, the ETFs may hold different investments and may be subject to, among other things, management fees, brokerage fees and other fees and expenses.

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