



DOWNSIDE PROTECTION IN PUBLIC EQUITY

Introduction

Equity market volatility has returned to the top of investor concerns following the correction caused by the Covid-19 pandemic and the recent equity market drawdown in the midst of persistent inflation and tightening monetary policy. In normal market conditions, it can be difficult for investors to remain committed to equity strategies due to short-term underperformance versus peers or benchmarks. However, the difficulty level rises exponentially during periods of heightened market volatility and uncertainty. Understanding market behavior during past equity market downturns and building expectations around different equity strategy types is a helpful exercise for investors seeking to prepare their portfolios and their decision-making processes to either reduce the impact of or take advantage of market corrections.

The objective of this paper is to highlight how market behavior has differed during recent market downturns. This information is intended to aid investors in thinking through how they may react during future drawdowns. This piece also outlines the types of traditional and alternative equity strategies available to investors seeking downside protection within equity.

A primary takeaway from this paper is that investors need to understand the strengths and weaknesses of their portfolios. This knowledge can enable them to make informed decisions around portfolio changes and determine whether they will stay dedicated to their current portfolio or seek a different long-term structure. Investors can suffer long-term harm from making poor short-term driven decisions. Specifically, reducing equity exposure to levels below stated targets in an asset allocation plan during corrections reduces participation in future equity rebounds and can damage long-term returns.

Relatedly, another important observation noted in this paper is that investors should remember that asset allocation remains the first line of defense against equity risk. In many cases, reducing equity risk can be better accomplished by simply allocating more to an asset class with a relatively low correlation with the equity market rather than altering the market exposure or structure of their equity composite. However, reducing an equity allocation in favor of a different asset class is a decision to consider in the context of a full asset allocation discussion rather than in response to short-term market movements.

Written By:

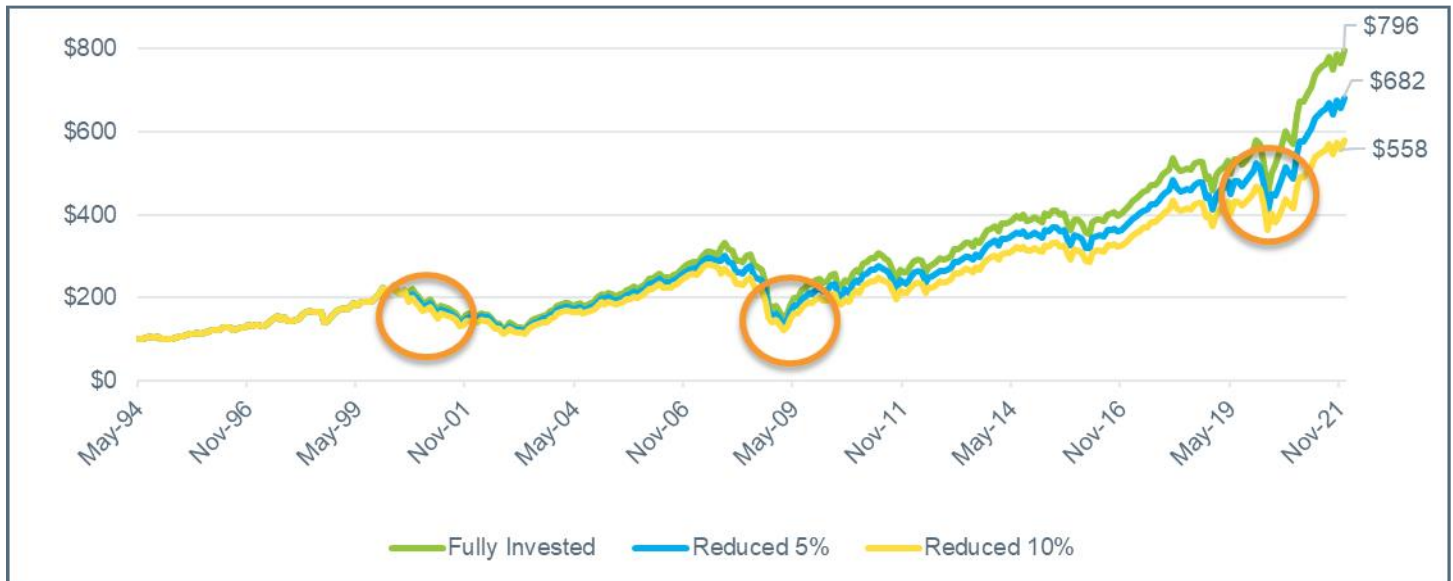
Matt Sturdivan, CFA
Director of Traditional and Long-Short Equity

Sam Kavehrad, CAIA
Manager Research Consultant

Carson Hollyoak, CFA
Senior Manager Research Analyst

Figure 1 contains a simple example that compares the cumulative returns of three investors: one that remains fully invested in the MSCI ACWI IMI, another that decides to reduce equity exposure by 5% after the first 3 months of each downturn, and an investor who reduces equity exposure by 10% after the first 3 months of each downturn. Across the past three major corrections, the investor that decided to remain fully invested ended the period with higher total returns even though they fully participated in the extended downturns. Perhaps the investors who reduced exposure were able to invest in assets that outpaced equity markets during the eventual rebounds, but that hurdle would be fairly difficult to clear given the rebound experienced in stock returns. The initial takeaway is that these types of allocation decisions are better made through long-term strategic asset allocation analysis rather than in reaction to short-term volatility.

Figure 1: Growth of \$100 Invested in MSCI ACWI IMI (May 1994—Dec 2021)



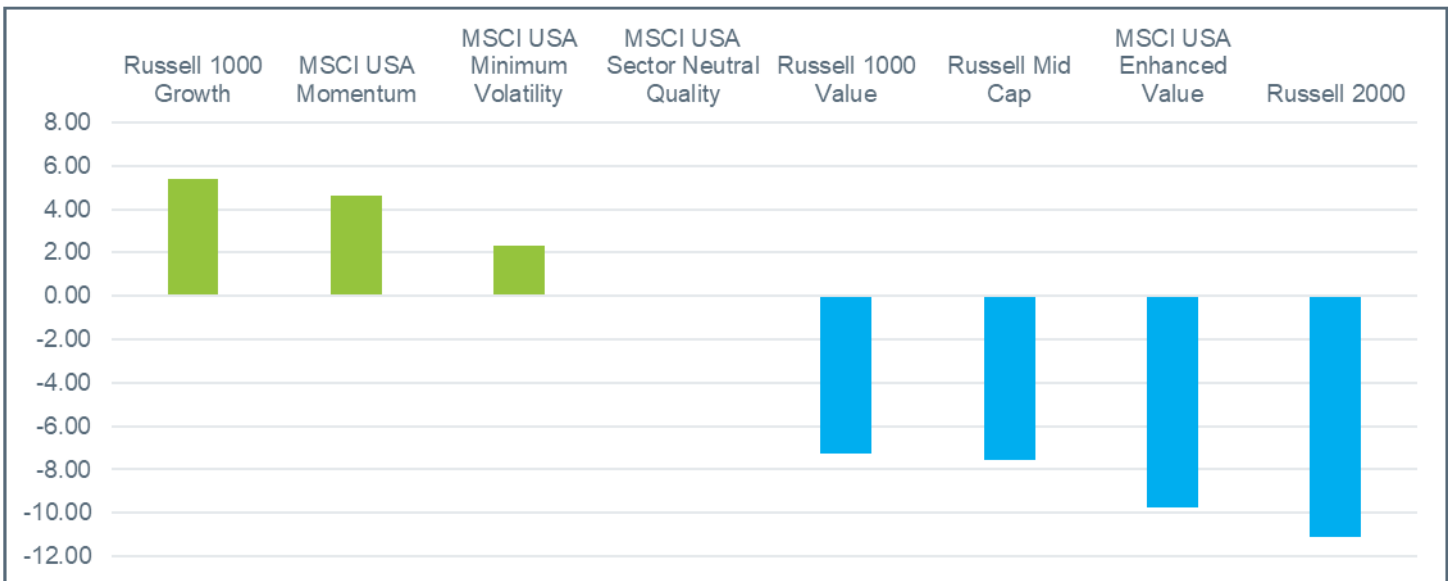
Benchmark data sourced from Morningstar.

For long-term investors, an equity composite that matches its intended role within their strategic asset allocation is an important component of meeting their risk and return targets. The data presented illustrates the need for investors to build reasonable expectations around the performance of strategies in their portfolios, especially around their behavior during periods of heightened market volatility. Each downturn will inherently be different, and perhaps the best defense for an investor is to prepare by knowing what to expect from their equity composite and its underlying strategies. Avoiding the need or impulse to change strategies in the middle of market corrections is a sound goal for all investors.

Market Behavior in Recent Downturns

Volatility in equity markets is expected, but its drivers are neither predictable nor persistent, and they can shift rapidly alongside changing market conditions and economic realities. The first quarter of 2020 exemplified the concept that each downturn is different, driven by unique market conditions that dictate which industries, sectors, or company types outperform others. A key takeaway in Figure 2, which displays the performance of different style and factor groups within US equity during the first quarter of 2020, is that the impact of a market downturn can be very lopsided. During the period shown, it is clear that value and smaller cap stocks fell more sharply than other groups, such as growth and momentum stocks, relative to the S&P 500.

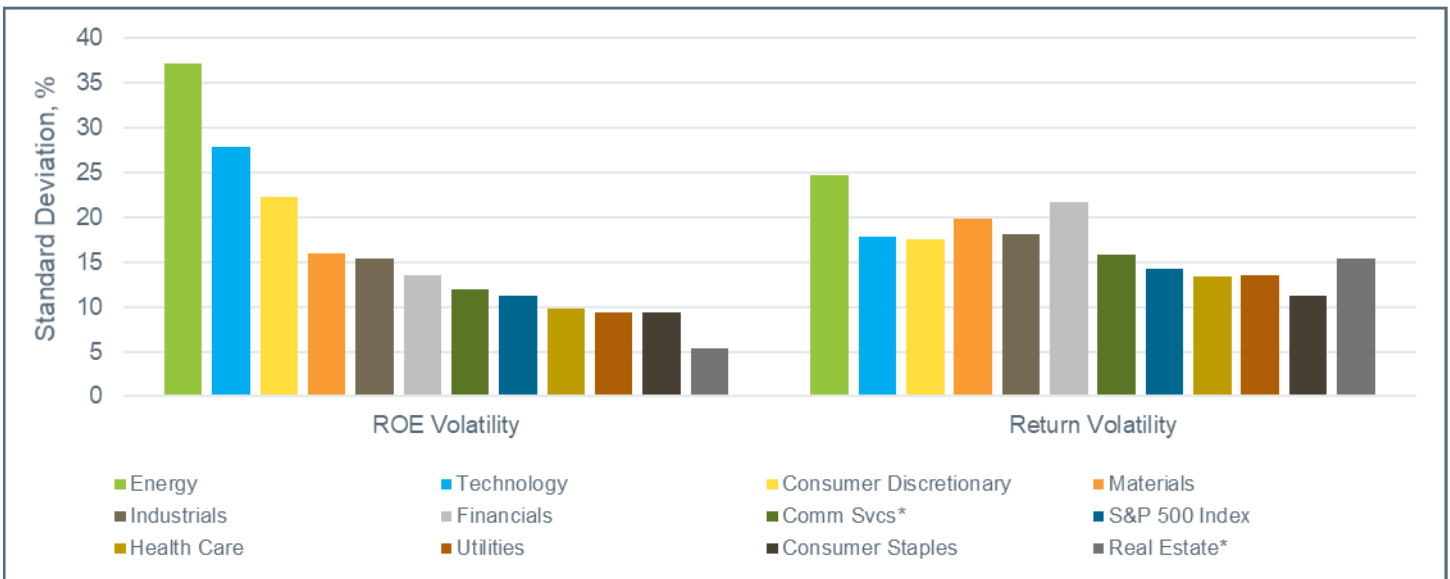
Figure 2: Select Factor and Market Cap Segment Performance in Q1 2020



Benchmark data sourced from Morningstar.

Although each market correction can have an unequal effect on different types of stocks, there are sectors that have held up more consistently than others over the long term. The concept of downside protection in equity is fairly simple: investors targeting capital preservation select stocks or increase exposure to factor groups that decline less than the general market during market corrections. Generally, companies that produce less economically sensitive and more predictable cash flows tend to generate lower price volatility over time. Figure 3 showcases that the sectors with the lowest variability of return-on-equity also tend to have generated lower levels of volatility.

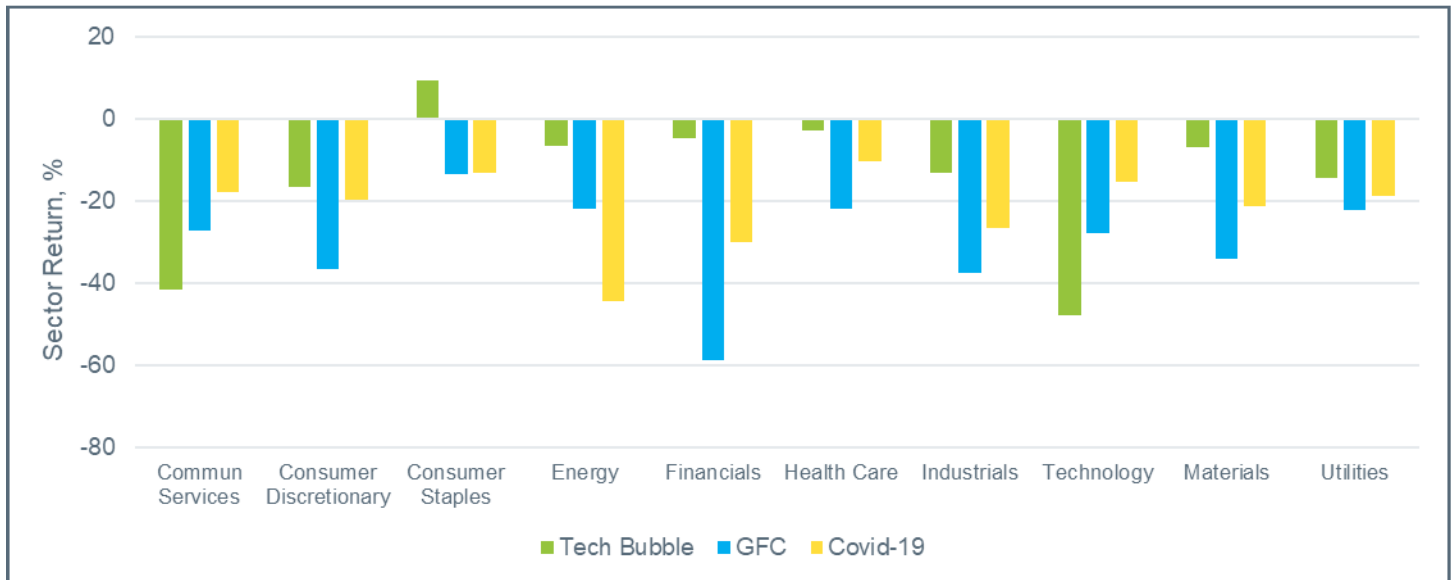
Figure 3: S&P 500 Sector ROE and Return Volatility (09/2003 - 12/2021)



Benchmark data sourced from Morningstar. *Data for the Communication Services and Real Estate sectors are constrained due to their later introduction dates (October 2018 and September 2016, respectively).

However, as certain sectors and industries have evolved to be less cyclical or capital intensive, their potential for downside protection may not match past trends. As [Figure 4](#) illustrates, there are sectors where downside risk has likely shifted over time, highlighted through well-known market drawdowns. For instance, the technology and communication services sectors (telecommunications sector in past periods) performed significantly better in the Covid-19 related market drop compared to those of the Tech Bubble and Great Financial Crisis (GFC).

Figure 4: Sector Returns in Past Drawdowns



Benchmark data sourced from Morningstar. The time periods used for this chart and similar analysis throughout the paper are defined as follows: Tech Bubble (April 2000-Sept. 2002), Great Financial Crisis, GFC (June 2007 – Feb 2009), Covid-19 (Feb – March 2020). Returns are annualized for periods greater than 12 months.

While notable, this does not mean that these sectors will be sources of downside protection in each downturn going forward. There are multiple factors at play that can make the sector-specific impact of a correction difficult to predict. The consumer discretionary sector is a helpful example, as this sector held up better than others in the Covid-19 downturn but experienced a sharper drop during the GFC. The nature of the companies within that sector has changed, with Amazon's growth over the past decade being a key driver, as did the policy response to each individual crisis. The direct influx of capital to citizens, rather than through financial institutions, played a role in the downside experience of that sector during these two different market environments.

Style is also an important consideration for investors seeking downside protection. Growth and value investors have both cited the benefits of their specific styles during past market downturns. However, the data indicates that, based on standard market indexes, neither style should necessarily be relied upon as a consistent downside protector. [Figure 5](#) on the following page illustrates the different behaviors that each style has exhibited during past periods of volatility.

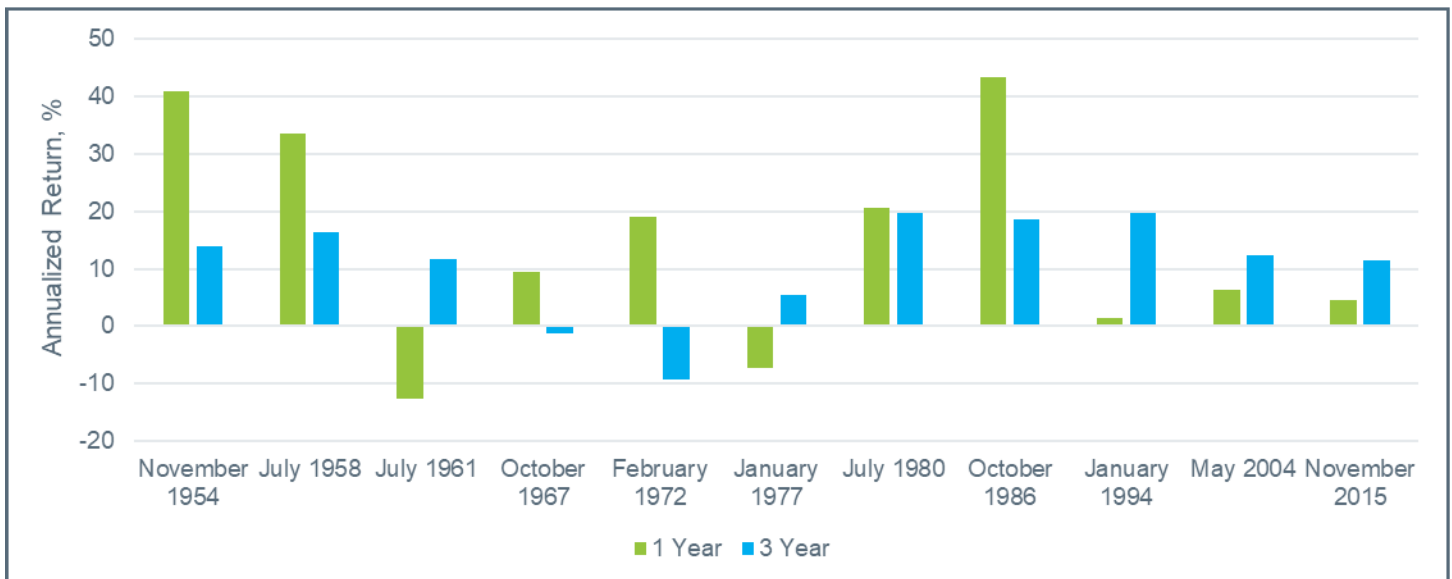
Figure 5: Historical Downside Market Capture (Dec 1998 - Dec 2021)



Benchmark data sourced from Morningstar.

In the closing months of 2021, investors became increasingly aware of the risks that rising interest rates could pose across their portfolios, including their equity investments. Intuitively, this concern is relevant given the impact that rising interest rates can have on economic growth, discount rates, debt costs, capital flows, and inflation. However, the market does not react uniformly to all cases of tightening monetary policy. Figure 6 shows the 1 and 3 year returns of the S&P 500 Index following the start of past rising interest rate regimes. Notably, it is clear that there are many more variables at work, given the lack of a clear correlation between interest rate movements and equity returns. Variables such as the starting equity market valuation, inflationary environment, economic growth backdrop, the frequency and magnitude of interest rate increases, and the interest rate at the beginning of the period, to name a few, must be considered by investors. Again, a clear takeaway is to incorporate multiple variables into a return assumption and to use a long-term horizon when determining asset class allocations, given the wide range of outcomes possible in short-term equity returns.

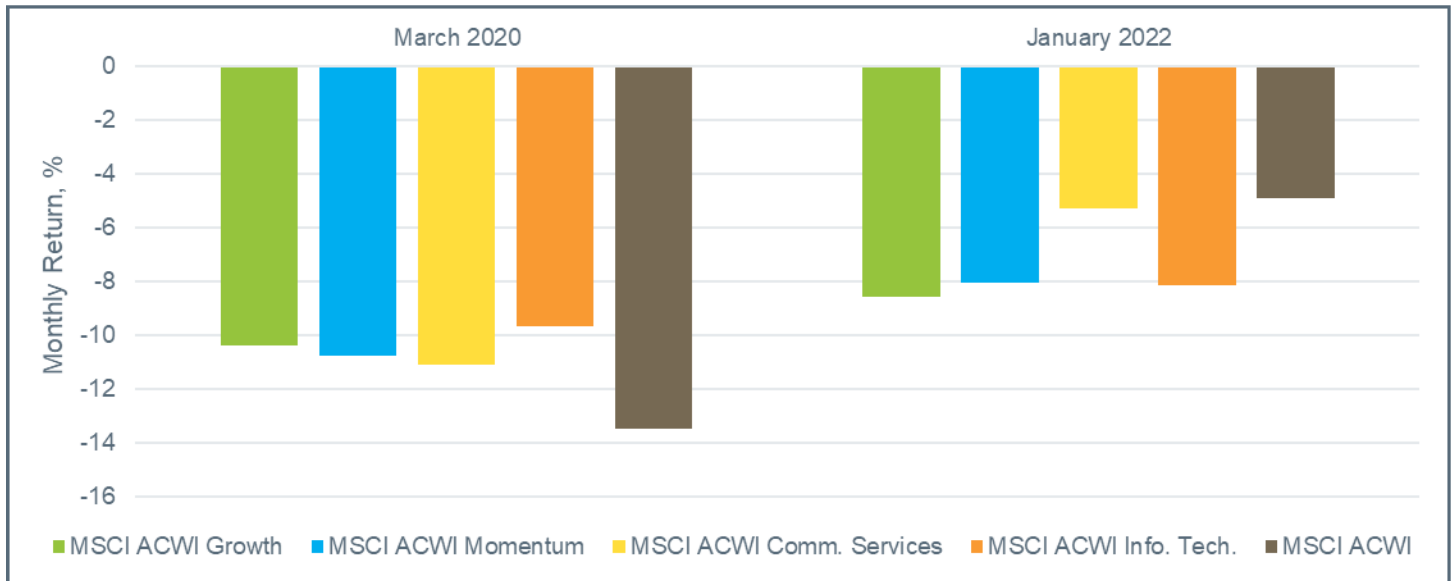
Figure 6: S&P 500 Performance In Past Rising Rate Regimes



Benchmark data sourced from Morningstar.

As stated previously, the performance of certain factors, sectors, or styles in past drawdowns should not be taken for granted. Each period of volatility brings with it unique drivers and externalities. The volatility experienced in March 2020 and early 2022 is instructive on this issue. Figure 7 shows that some of the factors, sectors, and styles that held up well in February – March 2020 are not faring as well in this recent bout of volatility.

Figure 7: Select Factor and Sector Performance in Recent Down Months



Benchmark data sourced from Morningstar.

As has been shown, each downturn is unique and can be driven by different segments of the market. It is a good reminder that making assumptions regarding which parts of the market will falter or protect in the middle of a period of volatility is a complex task. In summary, projecting which strategies can be relied upon for future downside protection is difficult, but there are dedicated capital preservation options within equity to consider. The following section will review several strategy types that could be of interest to investors that desire the reduction of the volatility of their equity composites.

Summary of Investment Options

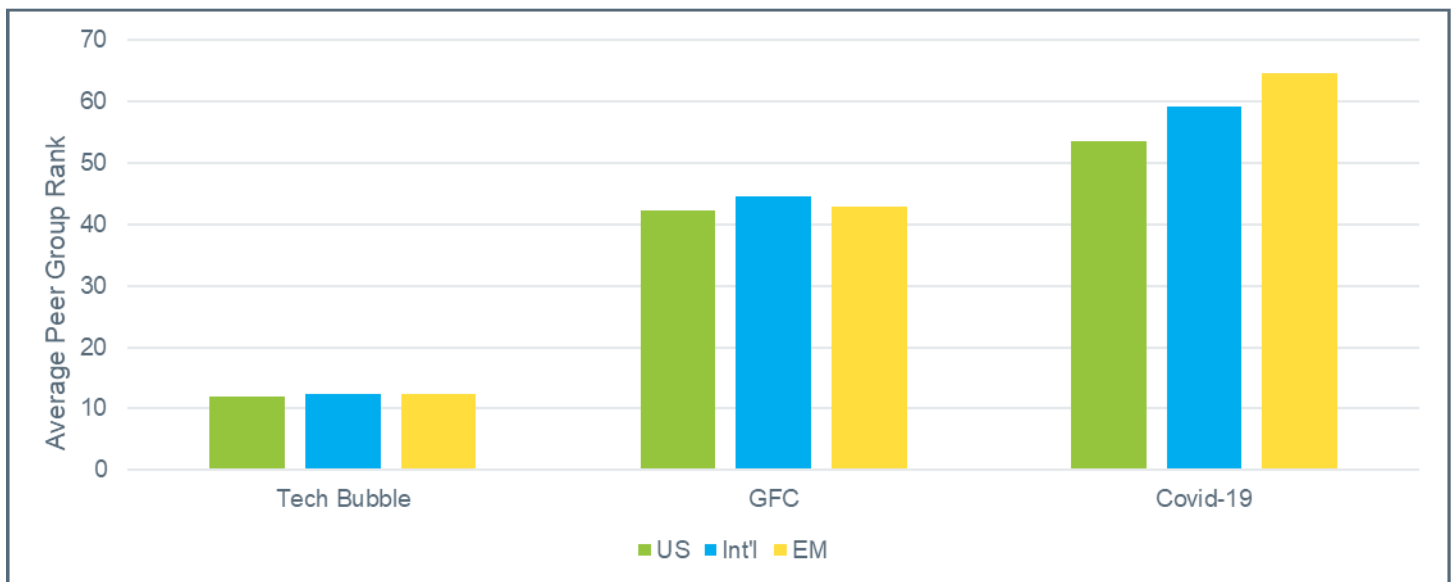
Investors seeking consistent sources of capital preservation within equity allocations have multiple options to consider. The actual selection of strategy type will depend on an investor’s sensitivity to fees, belief in the ability of active management to add value, and the level of downside protection sought.

Traditional Active

As would be expected, active managers that proved more resilient during unexpected spikes in market volatility tend to garner interest directly following these events. However, institutional investors should be careful not to fully rely on the performance of a strategy in a single down market period when evaluating its future defensive capabilities.

Figure 8 shows the past protection provided by an equity manager (with lower ranks indicating strong peer-relative performance), or lack thereof, does not necessarily have predictive power over the performance of the strategy in future downturns. The data in the chart includes all managers with track records spanning the three largest drawdowns in the past 20 years across US equity, Int’l Equity, and Emerging Markets (EM) peer groups. Excess performance is calculated versus the preferred benchmark of each manager. The chart shows that the top-ranked managers during the Tech Bubble crash did not perform as positively during subsequent market corrections, and, in fact, they ranked below median during the Covid-19 market drawdown, on average. The main takeaway is that investors cannot take downside protection from their active managers as guaranteed. Managers that provide protection in one downturn are not guaranteed to provide it again during future corrections.

Figure 8: Future Performance of Top Quartile Performers During Tech Bubble



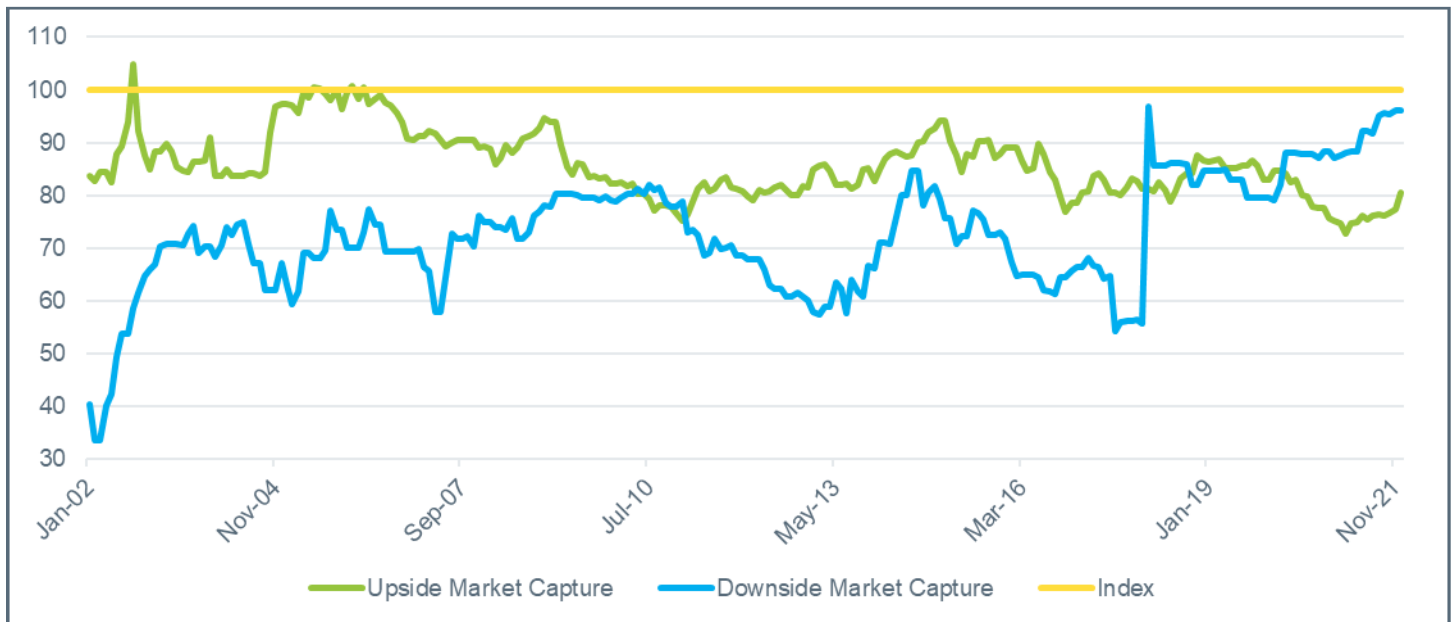
Peer group data sourced from eVestment.com. The time periods used for this chart and similar analysis throughout the paper are defined as follows: Tech Bubble (April 2000 - Sept. 2002), Great Financial Crisis, GFC (June 2007 - Feb 2009), Covid-19 (Feb - March 2020). Returns are annualized for periods greater than 12 months.

It is evident that some managers who outperformed their benchmarks to the highest degree during the Tech Bubble crash failed to generate strong active performance in subsequent downturns. This data highlights the need for investors to understand whether an active strategy truly is targeting downside protection or simply benefited from the market conditions leading to each discrete downturn event.

Active Low Volatility

There are specialized active management approaches, both fundamental and quantitative, that target lower market sensitivity with the expectation that downside protection will be achieved in most sharp corrections. Normally these active approaches pair the lower volatility objective with a stock selection process which is expected to generate excess returns. As Figure 9 displays, these types of strategies can preserve capital during drawdowns; however, their underperformance during up months can make them difficult to retain during periods of extended market appreciation.

Figure 9: 24 Month Rolling Market Capture (Active US Low Volatility Peer Group)



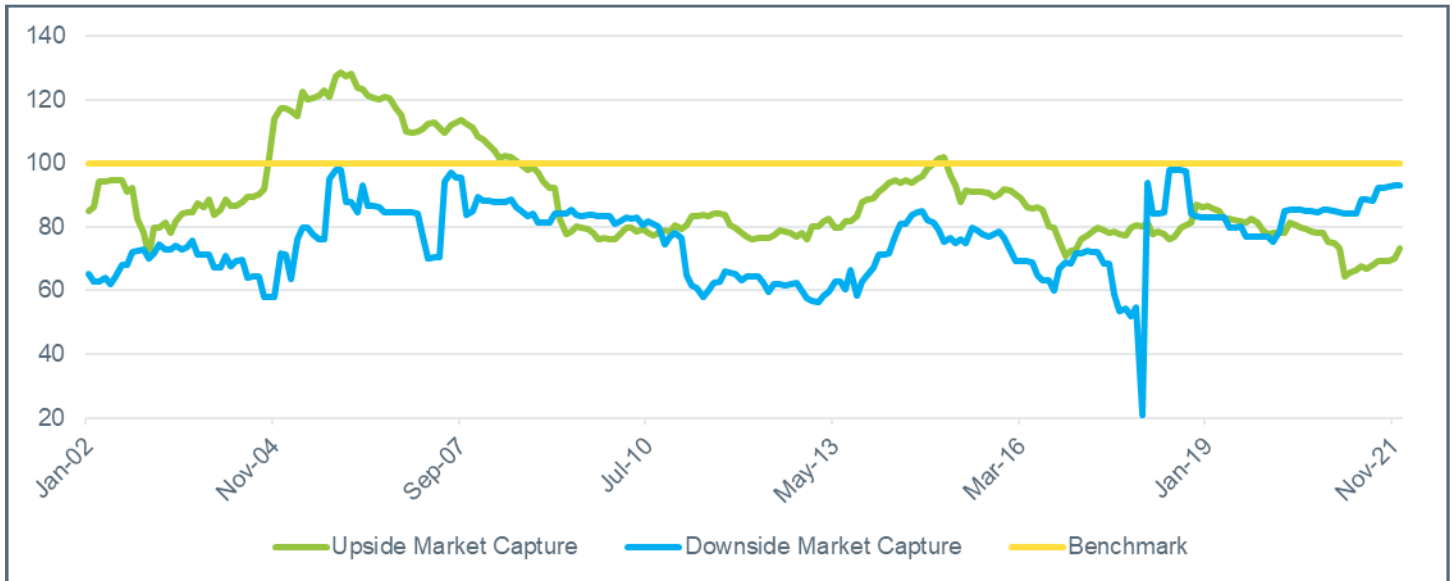
Peer group data sourced from eVestment.com (Universe: US Low Volatility; Manager Count: 67). Capture ratios measured against manager-stated preferred benchmarks.

Factor Driven and Synthetic Approaches

There are rules-based factor strategies that target lower volatility than the general market, either through optimization or selection of stocks with low historical volatilities, in a straightforward and cost-effective manner. These strategies attempt to identify and capture the “low volatility” factor. However, investors must be aware that any excess returns are primarily factor-driven and that the lack of alpha generation is a key drawback to the factor-driven approaches. For active low volatility or factor-driven strategies, investors should also be careful to understand any sector or country biases introduced by these approaches, as these can be large sources of unintended or non-factor risk.

There are also synthetic approaches that use derivatives, options, or a combination to target a reduced level of portfolio volatility. In some cases, income generated from selling calls and/or puts provides a buffer to increase returns during volatile periods, although they should be properly covered or hedged to guard against adverse price movement. Other approaches create a floor for share prices to guard against unexpected downturns. Similar to factor-driven approaches, investors must be aware of the opportunity cost of missing upside potential. In addition, these synthetic strategies can also be priced in a similar fashion, and in some cases higher, than traditional active management. Similar to the traditional active low volatility strategies, the following chart shows that the peer groups of managers that use these approaches have generally provided reduced downside capture, but with the expected reduction in upside capture as well. Figure 10 provides insight into how managers fared versus their stated preferred benchmarks.

Figure 10: 24 Month Rolling Market Capture (Factor Driven, Covered Call and Buy-Write Manager Peer Groups)

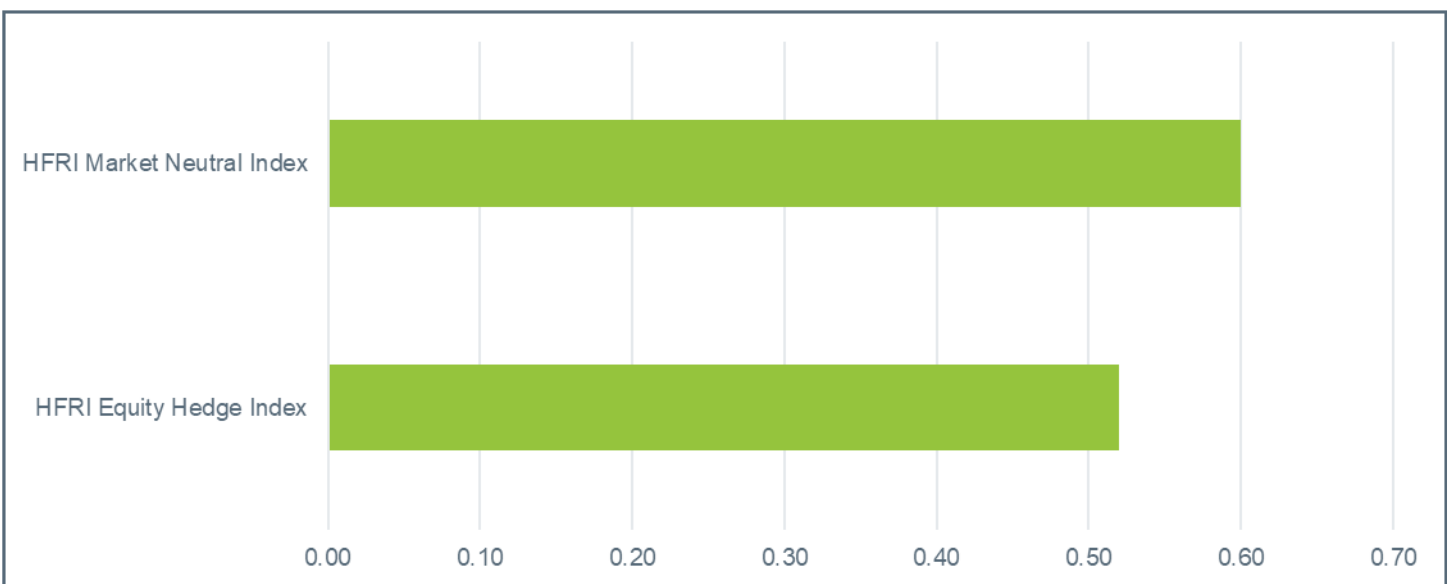


Peer group data sourced from eVestment.com (Universes: Smart Beta Low Volatility & Covered Call/Buy-Write; Combined Manager Count: 75). Capture ratios measured against manager-stated preferred benchmarks.

Long/Short Equity

An alternative solution for enhancing downside protection in equity allocations is to introduce long/short equity strategies, with a likely focus on long-biased or market-neutral equity spaces. Relying on active stock selection and alpha-seeking short portfolios instead of market-timing techniques, these managers have historically offered the potential of meaningful returns with a less bumpy ride than other equity approaches. The returns for the peer group-based HFRI indexes for hedged equity and market-neutral managers are showcased in Figure 11. The long-term annualized alpha, calculated as the beta-adjusted excess return versus the S&P 500, shows that each approach has the potential for generating attractive levels of risk-adjusted returns.

Figure 11: 20 Year Annualized Alpha vs. S&P 500 (12/2021)

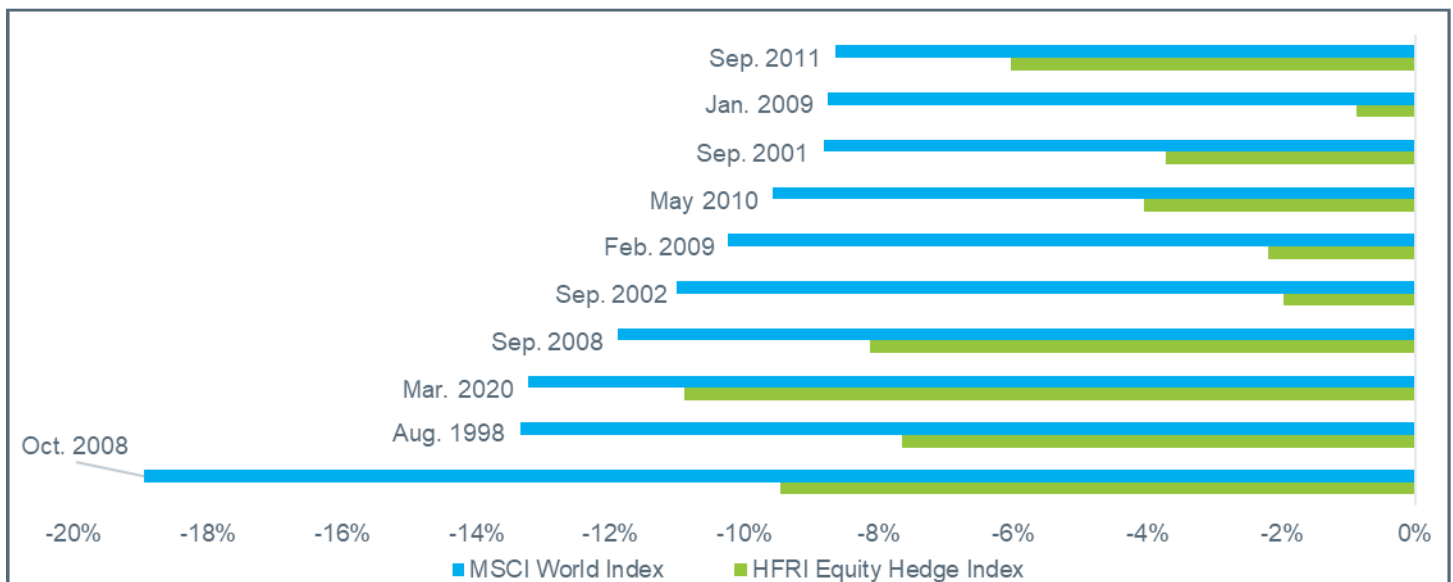


Benchmark data sourced from HFRI and Morningstar.

Directional Long/Short Equity

Directional approaches begin with a long and short stock selection framework leading to a “best ideas” portfolio within a given area of focus. Core managers will seek out the best ideas across multiple sectors, with stylistic flexibility adaptive to different market environments and regimes. In other words, they will be less devoted to strict value or growth disciplines and more focused on long-term intrinsic value forecasts. This approach can be fruitful across both growth and value-driven market regimes, as managers can tilt portfolios and uncover multi-year themes based on overlooked or underappreciated company potential. Managers will typically maintain a moderately diversified portfolio across multiple sectors. HFRI peer group returns are displayed in Figure 12 to showcase past volatile months where these types of approaches provided downside protection versus a long-only equity market benchmark.

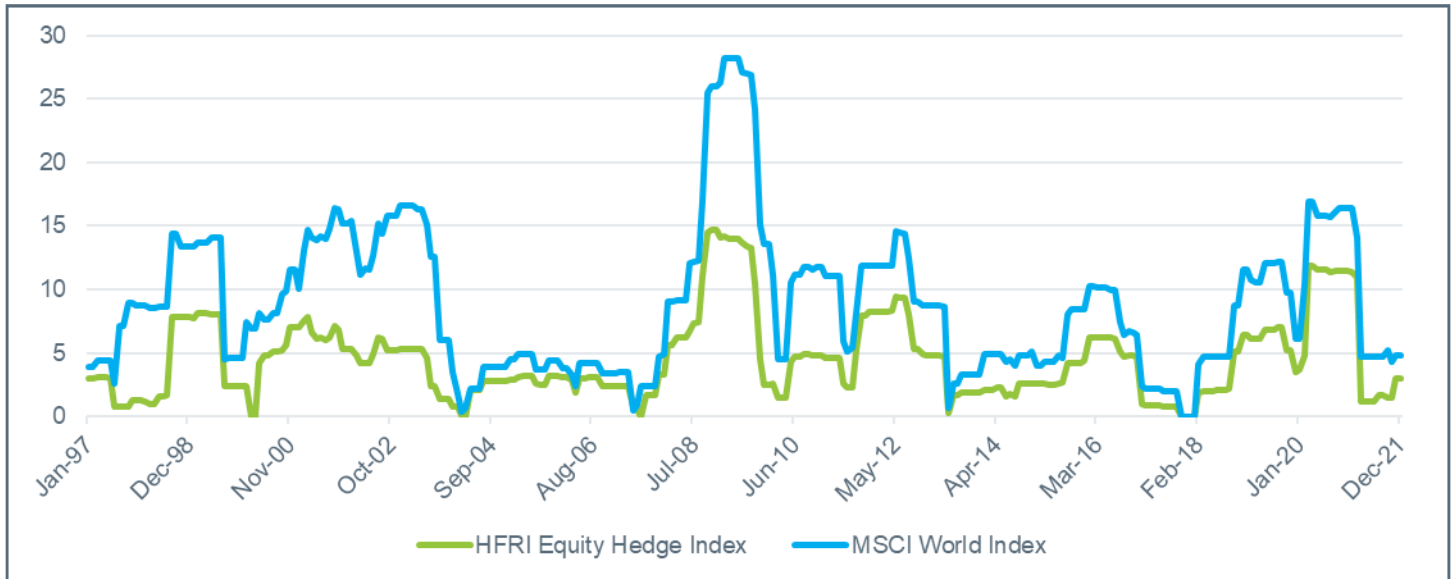
Figure 12: Extreme Monthly Drawdowns (MSCI World vs. HFRI Equity Hedge Index)



Benchmark returns sourced from HFRI.

Portfolios are typically positioned “net long,” meaning they maintain moderately higher long versus short exposure in order to accommodate the fact that equity markets typically grow over time. Still, their market sensitivity (using the beta measure) is typically expected to be about half that of market indices. Historically, long/short equity has produced a more balanced distribution of monthly returns versus traditional approaches, with far fewer negative outliers. The ability of managers to navigate successfully throughout both temporary market shocks and protracted downturns largely reflects the use of alpha-seeking shorts as an effective downside protection tool when investors have needed it most. Figure 13 on the following page provides evidence of the reduced volatility provided by long/short equity managers in down market months versus a long-only equity market benchmark.

Figure 13: Rolling 12 Month Semi-Deviation, %



Benchmark returns sourced from HFRI and Morningstar.

Market Neutral Long/Short Equity

Market neutral approaches begin with a similarly long and short stock selection framework but maintain equally balanced long and short positioning across a portfolio of “pairs” trades where shared macroeconomic correlations between stocks have been temporarily dislocated for idiosyncratic reasons.

Pairing long and short positions in this manner serves to hedge out the market beta while setting up a profitable trade as this dislocated relationship is restored. For example, a manager may decide to take a long position in a single (or group of) temporarily underpriced electric car parts suppliers that is offset by a short position in temporarily overpriced downstream oil distributors.

Offerings can vary from concentrated sector-focused approaches to highly diversified, multi-portfolio platforms featuring hundreds (or more) of stock holdings. Due to their market-neutral positioning, strategies typically feature very low correlation to equity indices, long-only managers, or common style factors. As a general rule of thumb, multi-portfolio approaches that are more diversified deploy more leverage than concentrated strategies.

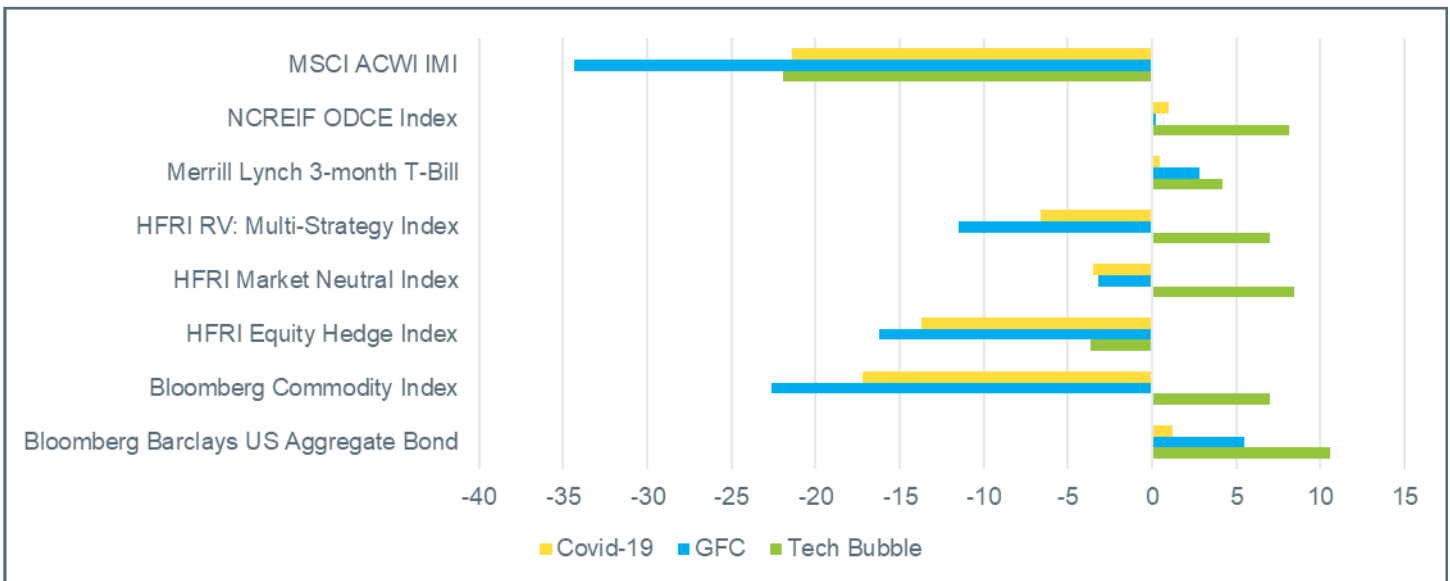
Importantly, meaningful returns over full economic cycles have been achieved with significantly dampened beta and downside volatility relative to global equity markets. This pattern of reliable downside protection has proven resilient and consistent across every market crisis in recent history, including the most recent example in March 2020.

Although sometimes offered in “liquid alternatives” form, hedge fund vehicles can be the appropriate structure for managers to take full advantage of opportunities across market caps and geographies. While fees will be higher, their attractive downside protection benefits can make them a highly complementary piece within a full equity composite, meriting consideration from institutional investors.

Asset Class Diversification

Investors must also deal with the historical reality that equity markets are rising more often than they’re falling. The role of an equity portfolio can differ; however, a common role is for it to provide a liquid source of returns. Consequently, an equity allocation tends to be the largest driver of risk in many investor portfolios. It can be tempting to dampen this volatility; however, the opportunity cost of doing so is also important to consider. It is worth noting that while investors can seek downside protection within their equity allocation, it can often be more efficient to seek it in other parts of their portfolio where the opportunity cost is lower and, in some cases, the probability of alpha generation is higher. Figure 14 showcases the protection that has been available outside of public equity in past drawdowns.

Figure 14: Asset Class Returns in Past Drawdowns



Benchmark data sourced from Morningstar. The time periods used for this chart and similar analysis throughout the paper are defined as follows: Tech Bubble (April 2000 - Sept. 2002), Great Financial Crisis, GFC (June 2007 - Feb 2009), Covid-19 (Feb - March 2020). Returns are annualized for periods greater than 12 months.

Conclusion

For many institutional investors, a long-term investment horizon is an important competitive advantage that should not be abandoned. If results during a sharp correction do not meet initial expectations, investors should avoid short-sighted reactions and seek solutions across a fuller, longer-term context. Conviction in a strategy can be fickle, especially during stressful market environments, which raises the risk of exiting strategies or reducing equity exposure at inopportune times and potentially damaging long-term returns.

Investors should take the time to review the preceding conditions and main drivers of a downturn prior to making long-term decisions in their portfolios. No matter the path selected by investors concerned about downside risk, our advice is to make evidence-based decisions, develop rational expectations for strategies and evaluate whether a strategy is fulfilling its role within a portfolio, rather than focus on its performance during a short-term period.

Disclaimer of Warranties and Limitation of Liability

This document was prepared by RVK, Inc. (RVK) and may include information and data from Morningstar Direct, eVestment.com, and HFRI. While RVK has taken reasonable care to ensure the accuracy of the information or data, we make no warranties and disclaim responsibility for the inaccuracy or incompleteness of information or data provided or for methodologies that are employed by any external source. This document is not intended to convey any guarantees as to the future performance of investment products, asset classes, or capital markets.



RVK was founded in 1985 to focus exclusively on investment consulting and today employs over 100 professionals. The firm is headquartered in Portland, Oregon, with regional offices in Boise, Chicago, and New York City. RVK is one of the five largest consulting firms in the world, as reported by Pensions & Investments' 2021 Special Report—Consultants. Additionally, in April 2021, RVK received a notable award as a Coalition Greenwich Quality Leader among large US investment consultants, based on Greenwich's 2020 study. Coalition Greenwich is an industry-recognized third-party firm which asks plan sponsors to rank their consultants on a series of key metrics. Notably, RVK is the only firm among large US consultants to receive an award for a fourth consecutive year.¹ RVK's diversified client base of over 200 clients covers 30 states, and covers endowments, foundations, corporate and public defined benefit and contribution plans, Taft-Hartley plans, and high-net-worth individuals and families. The firm is independent, employee-owned, and derives 100% of its revenues from investment consulting services.

¹Between July and October 2020, Coalition Greenwich (formerly known as Greenwich Associates) conducted in-person and phone interviews and online surveys with 856 individuals at 704 of the largest tax-exempt funds in the US—including corporate and union funds, public funds, endowments and foundations, insurance general accounts, and healthcare organizations, with either pension or investment pool assets greater than \$150 million. Study participants were asked to provide quantitative and qualitative evaluations of their asset managers and investment consultants, including qualitative assessments of those firms soliciting their business and detailed information on important market trends. RVK is one of three firms recognized in the large investment consultant category. The ratings may not be representative of any one client's experience with RVK; rather they are representative of those clients that chose to participate in the survey. The results are not indicative of RVK's future performance.

To read the Greenwich press release, please refer to the following URL: <https://www.greenwich.com/press-release/covid-19-crisis-put-investment-consultant-advisory-capabilities-test>

For more information about RVK, please refer to the following URL: <https://www.rvkinc.com/about/about.php>