Revolutionizing Equity Strategies for a New Frontier

Key Ideas

Today's investors are navigating an increasingly unpredictable market environment, facing challenges their predecessors never had to contend with. Traditional influences such as economic cycles, geopolitical uncertainty, algorithmic trading, and market sentiment contribute to this new world. However, the challenges are particularly acute as their impact on short-term market cycles makes it increasingly difficult to capture long-term alpha, navigate sudden spikes in volatility, and preserve portfolio diversification.

In this paper, we will:

- Demonstrate increasing and time-varying volatility, discussing the implications of today's changing volatility profile.
- Examine the recent wave of drawdowns and why it's important to prepare for the frequency, magnitude, and duration of these phenomena.
- Illustrate how shifting correlations are undermining diversification objectives.
- Present a risk paradigm for equity portfolios that seeks to address a new generation of market challenges.

UNCORRELATED ANSWERS®

Richard Yasenchak, CFA
Senior Managing Director,
Head of Client Portfolio Management

David Schofield
President,
Intech International

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The financial landscape has evolved dramatically in recent years, presenting investors with a unique set of challenges and complexities that require innovative strategies to navigate. As traditional equity portfolios encounter difficulties in adapting to these new market conditions, it becomes increasingly important to explore alternative approaches that deliver more resilient alpha in today's market environment.

This paper delves into the complexities of modern markets, examining three time-varying risks: volatility, drawdowns, and cross-asset class correlations. We aim to provide valuable insights into each and present an innovative risk management framework capable of systematically adjusting to these environments and delivering alpha in all seasons.

Volatility Undercurrents are Menacing

Volatility today is different from what investment professionals used to manage. The median standard deviation of rolling one-year S&P 500 returns in the post-WWII period has been 12.6% (Figure 1). However, volatility has risen over the decades, with median volatility increasing from 10.3% between 1950-1980 to 15.7% since the turn of the millennium (Figure 2).

FIGURE 1

STANDARD DEVIATION OF ROLLING 252-DAY S&P 500 RETURNS

S&P 500 rolling 252-day standard deviation 1950-01-01 to 2022-12-31. Source: FactSet.

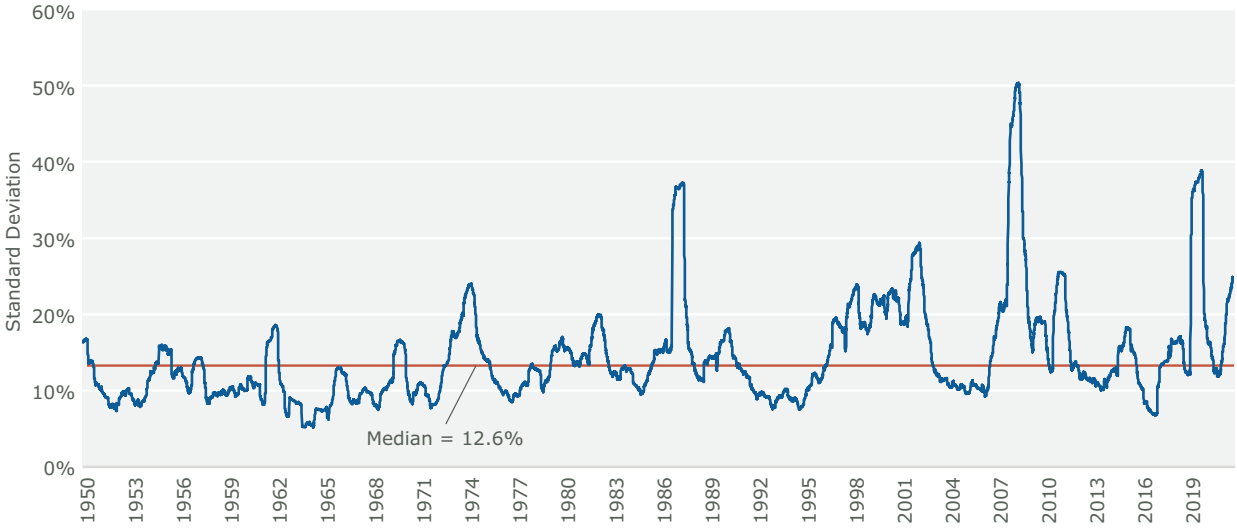
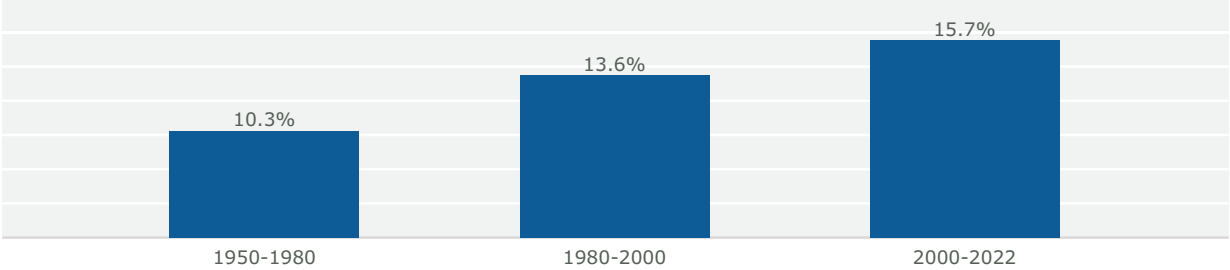


FIGURE 2

INCREASING VOLATILITY ACROSS GENERATIONS

Median S&P 500 rolling 252-day standard deviation 1950-01-01 to 2022-12-31. Source: FactSet.



Past performance does not predict future returns.

Increasing Short-term Volatility

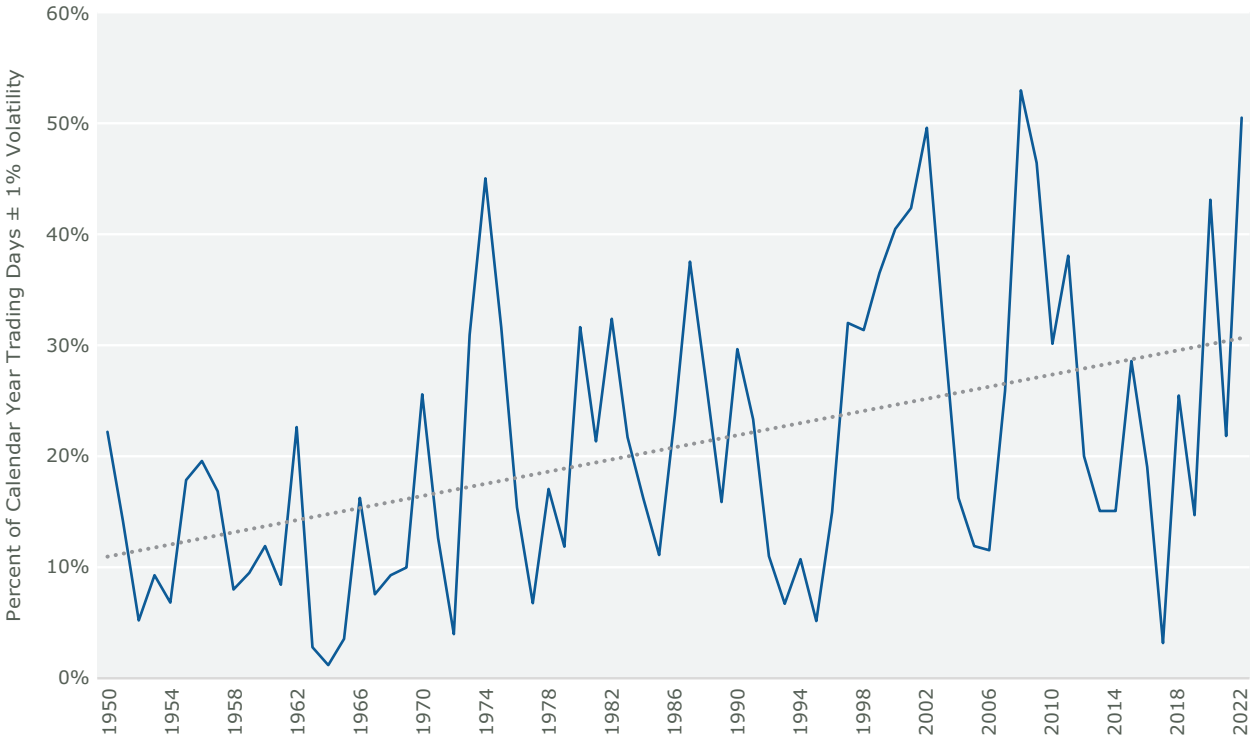
Higher long-term volatility has been accompanied by increased short-term volatility. Managing these episodes can be challenging without hedges that impair upside capture and lead to excessive trading expenses. The frequency of daily returns exceeding two standard deviations (equal to about ± 2% returns) has increased four-fold since the 1980-2000 period, making up 9% of trading days since 2000.

We'll concede that risk-seeking investors may be comfortable with navigating two-standard deviation events; however, daily returns exceeding one standard deviation (equal to about ± 1% returns) have also been marching higher. Below are the percentage of trading days in each calendar year with ± 1% returns (see Figure 3). Over 50% of the trading days in 2022 moved ± 1%.

FIGURE 3

PERCENT OF TRADING DAYS WITH ± 1% RETURNS ON THE RISE

S&P 500 daily returns from 1950-01-01 to 2022-12-31. Source: FactSet.



Past performance does not predict future returns.

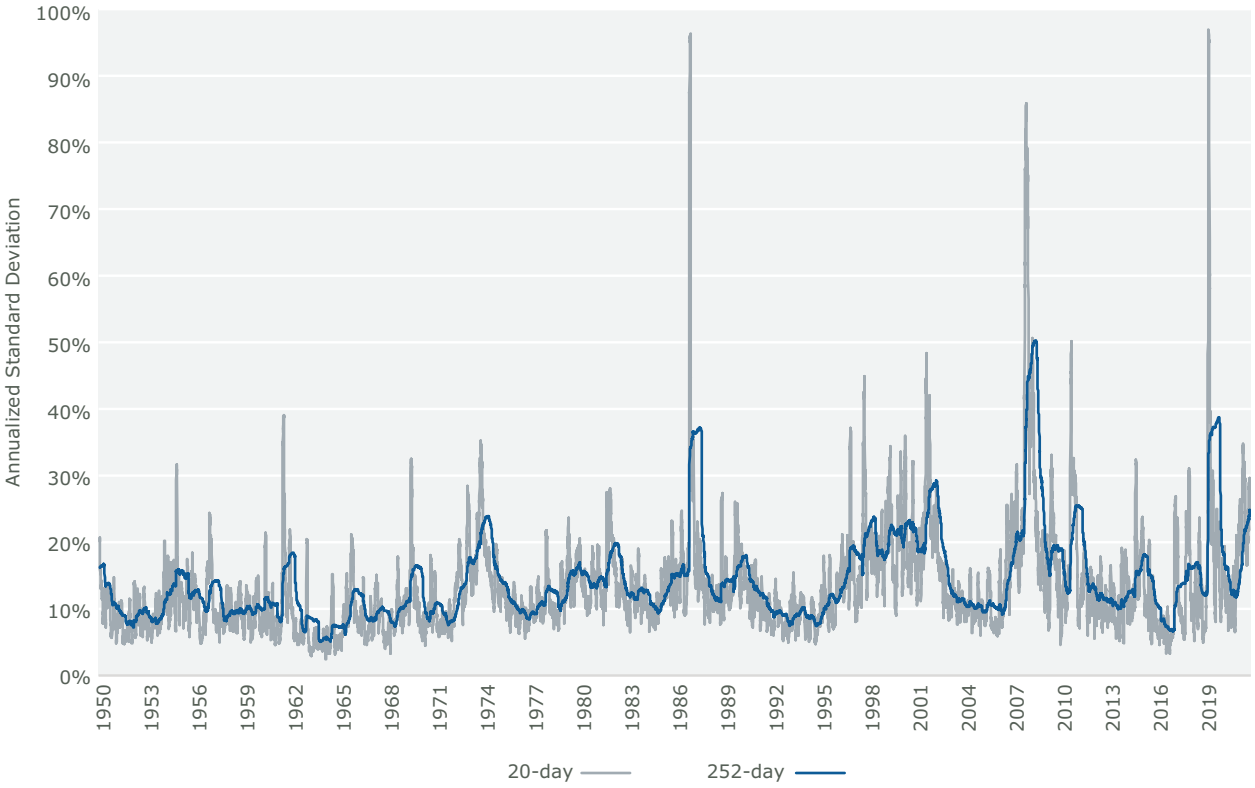
Time-Varying Volatility Cycles

Comparing rolling 252-day and 20-day standard deviations of daily returns (Figure 4) shows the increasing short-term volatility spikes relative to longer-term volatility cycles. Traditional equity risk management techniques may be inadequate to address both cycles efficiently while still delivering alpha, as they could require higher trading frequency or detract from capturing upside opportunities.

FIGURE 4

SHORT- VS. LONG-TERM VOLATILITY

S&P 500 rolling 252-day vs. 20-day standard deviation 1950-01-01 to 2022-12-31. Source: FactSet.



Past performance does not predict future returns.

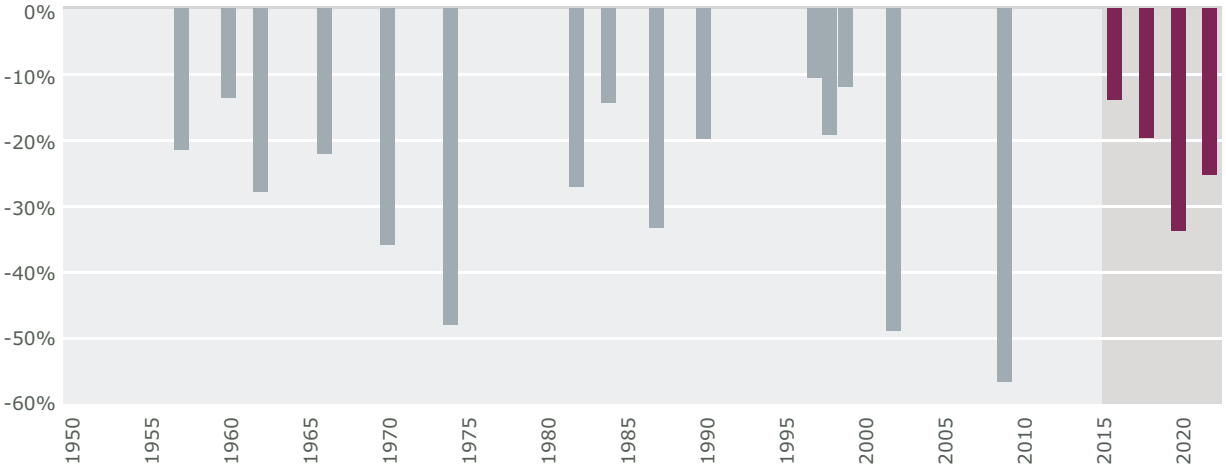
Drawdown Dynamics are New

The past few years have seen sharp and short equity drawdowns in rapid succession, prompting investors to consider a potential shift in market dynamics. Examining the S&P 500 Index, there has been an increase in drawdowns greater than 10% in recent years (Figure 5). Since 2015, drawdowns have also been more dramatic, with shorter durations from peak to trough and back (Figure 6).

FIGURE 5

S&P 500 INDEX DRAWDOWNS GREATER THAN 10%

1950-2022. Source: FactSet.

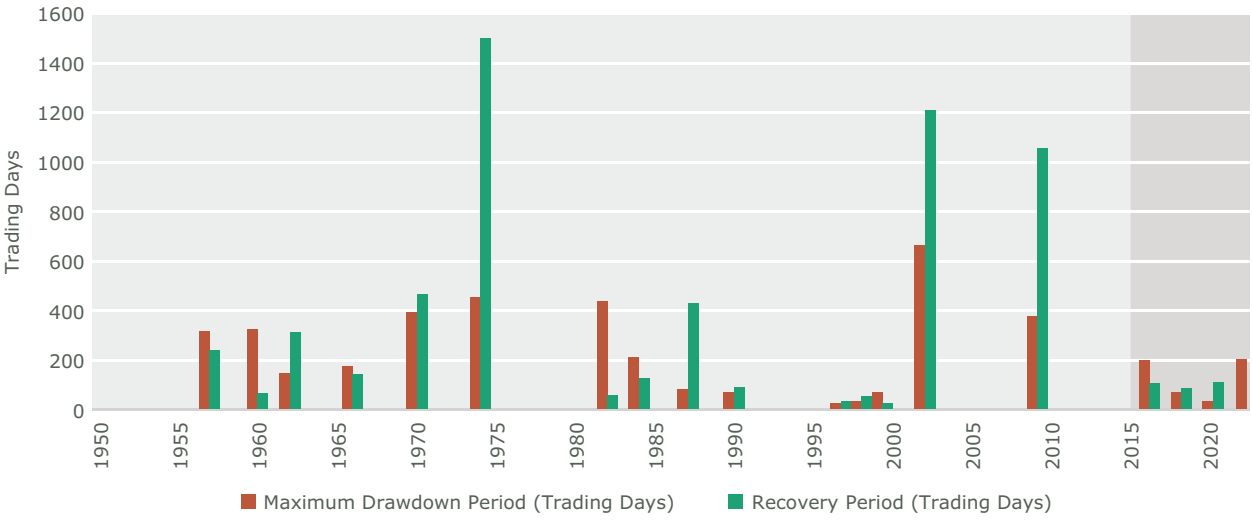


Past performance does not predict future returns.

FIGURE 6

TRADING DAYS TO MAX DRAWDOWN VS. RECOVERY TIME

S&P 500 Index Drawdowns Greater Than 10%, 1950-2022. Source: FactSet.



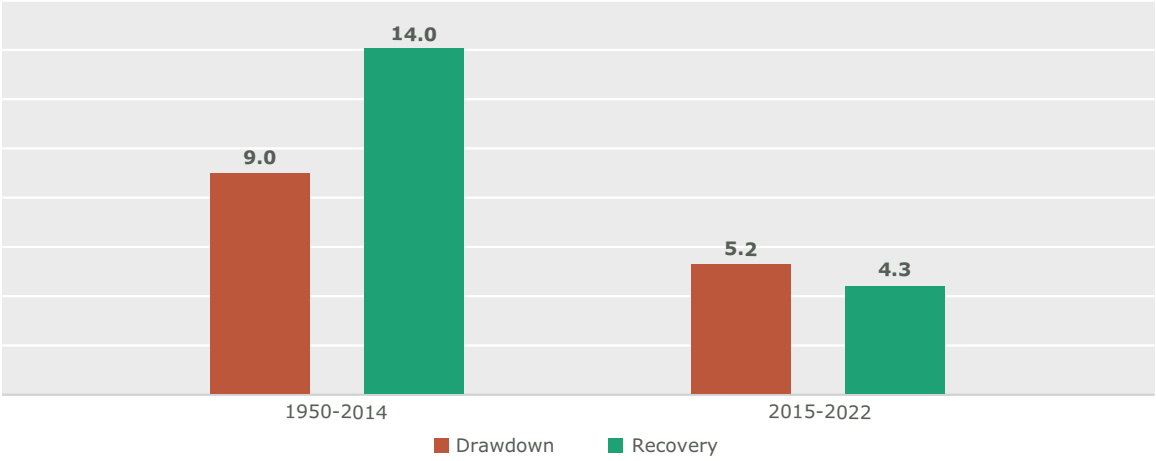
Past performance does not predict future returns.

Surprisingly, these recent drawdowns have seen steep declines and equally steep rebounds, making their durations shorter than expected. On average, drawdowns since 2015 have taken about 5.2 days per percentage point of max drawdown, compared to 9 days between 1950-2014 (Figure 7). Recoveries have also been faster, at 4.3 days per percentage point versus 14 days in the earlier period.

FIGURE 7

DRAWDOWN AND RECOVERY DAYS PER PERCENTAGE POINT

S&P 500 Index Drawdowns Greater Than 10%, 1950-2022. Source: FactSet.



Past performance does not predict future returns.

The primary causes for drawdowns since 2015 have been external factors rather than structural issues within financial assets. Both declines in the early part of this century took much longer to play out as various dominos continued to fall, and commensurately markets took several years to return to their previous highs. More recent, rapid recoveries pose challenges – especially for defensive strategies – as active managers may struggle to adapt quickly enough.

Portfolio Implications

Significant equity drawdowns, regardless of duration, contribute a significant source of risk to most portfolios and the potential for loss of capital. Typical responses to these drawdowns include changing capital market assumptions and making tactical or strategic portfolio changes. These responses come with their own baggage and may do little to navigate drawdowns, as asset class correlations often break down when they're needed most.

Frequent allocation adjustments in response to drawdowns are impractical, requiring collaboration and communication across investment teams, consultants, and trustees. Most investors will continue to need significant equity allocations; unfortunately, traditional equity strategies may be ill-suited for these swiftly changing markets.

Cross-Asset Class Correlations in Flux

Changes in intra- and cross-asset interdependencies can undermine diversification and return consistency. Identifying and quantifying co-movements within and across asset classes is essential for portfolio diversification. However, historical relationships evolve and can break down over the short term. In response, investors have added more esoteric, less-liquid asset classes, which may have diminishing returns and potential blind spots.

Time-Varying Stock Correlations

Stock correlations change over time due to factors like globalization, economic conditions, and market sentiment. Short-term changes in correlations can erase diversification benefits, typically occurring at inopportune times. Figure 8A shows rising cross-border correlations and Figure 8B illustrates the range of 1-year correlations.

FIGURE 8A

RISING U.S. - NON-U.S. CORRELATIONS

Source: FactSet; S&P 500 and MSCI EAFE Indexes (1970-2022)

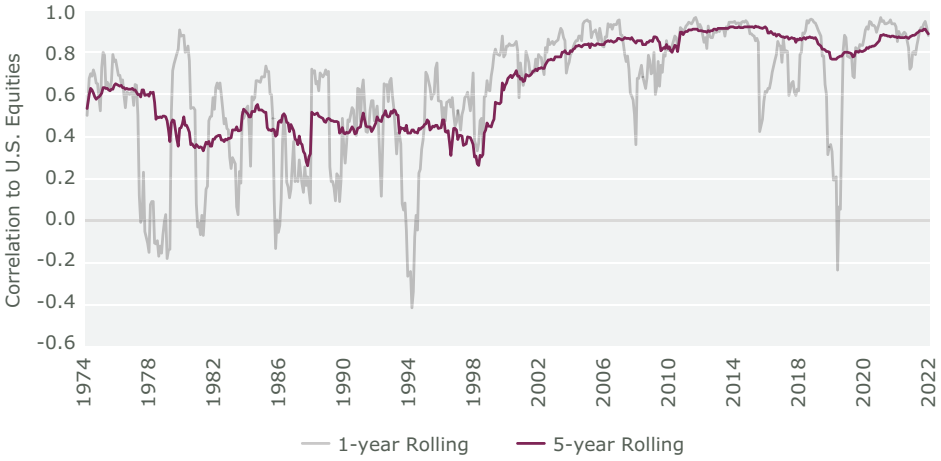
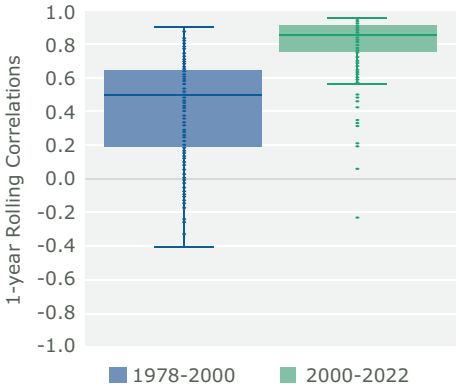


FIGURE 8B

RANGE OF 1-YR CORRELATIONS



Factor diversifiers can offer more range-bound long-term correlations, as seen in Figure 9A. However, these correlations can also be subject to extreme short-term dislocations (Figure 9B).

FIGURE 9A

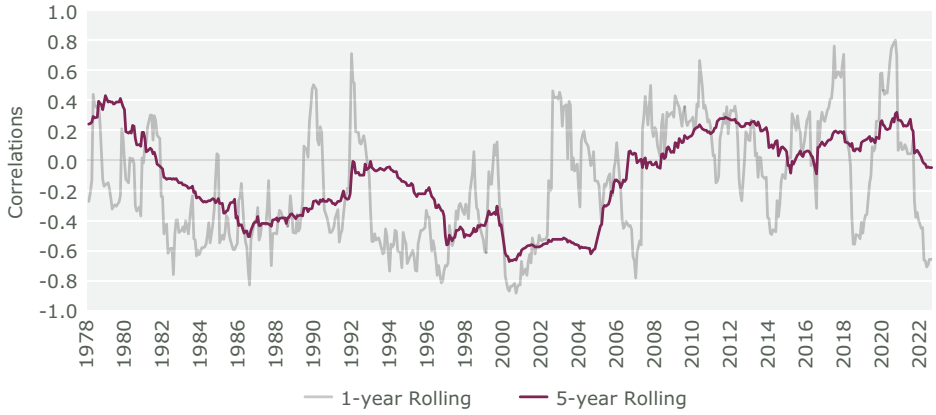
HISTORICAL FACTOR CORRELATIONS

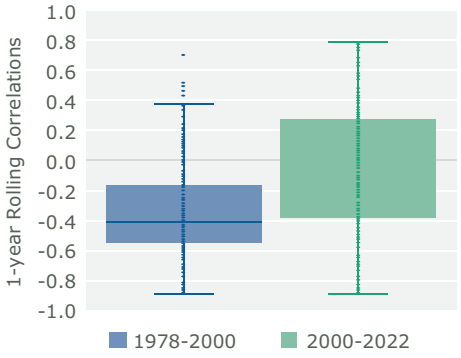
Source: French, K. R. U.S. Research Returns Data (1978-2022).
Kenneth R. French - Description of Fama/French factors.Retrieved February 28, 2023, from http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/f-f_factors.html

FIGURE 9B

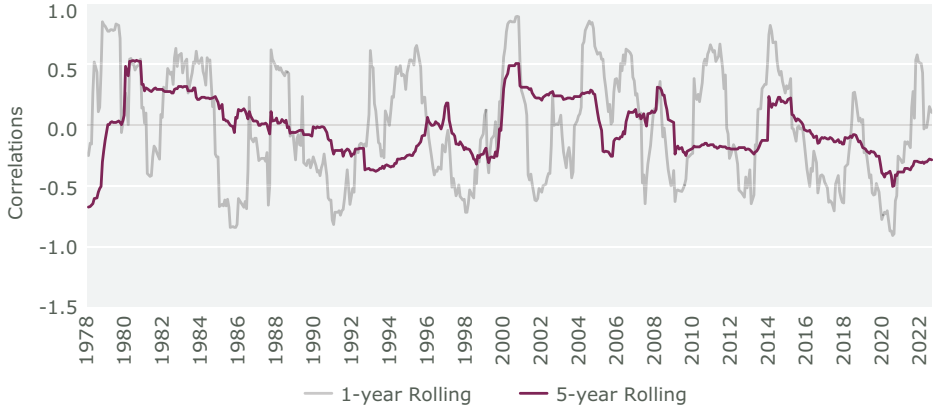
RANGE OF 1-YR CORRELATIONS

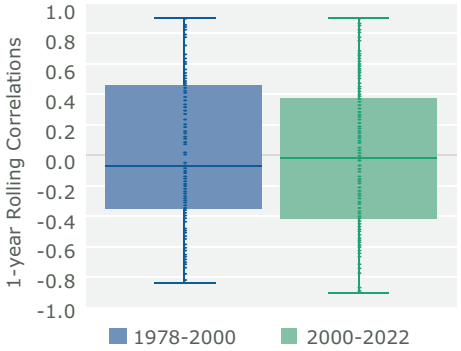
SIZE-VALUE



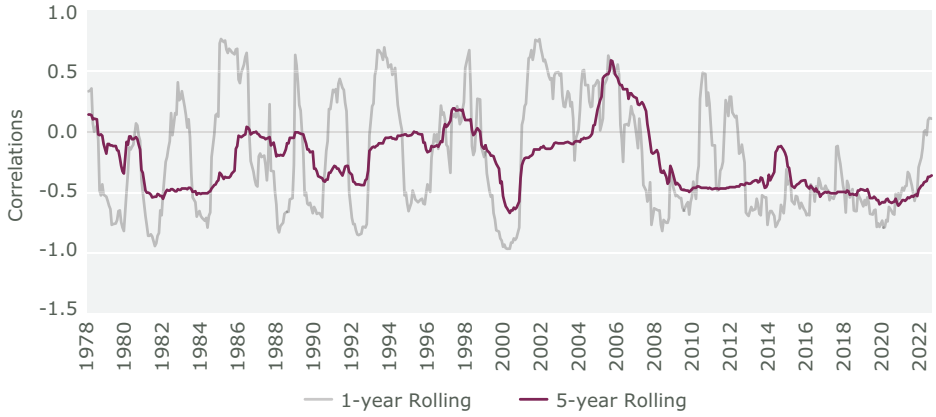


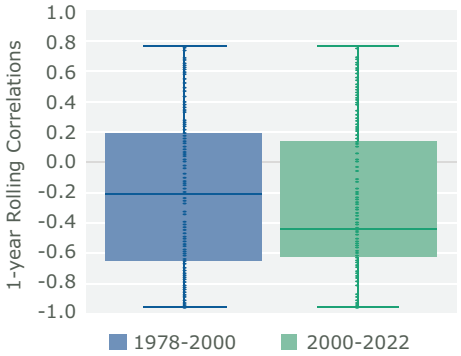
SIZE-MOMENTUM





VALUE-MOMENTUM





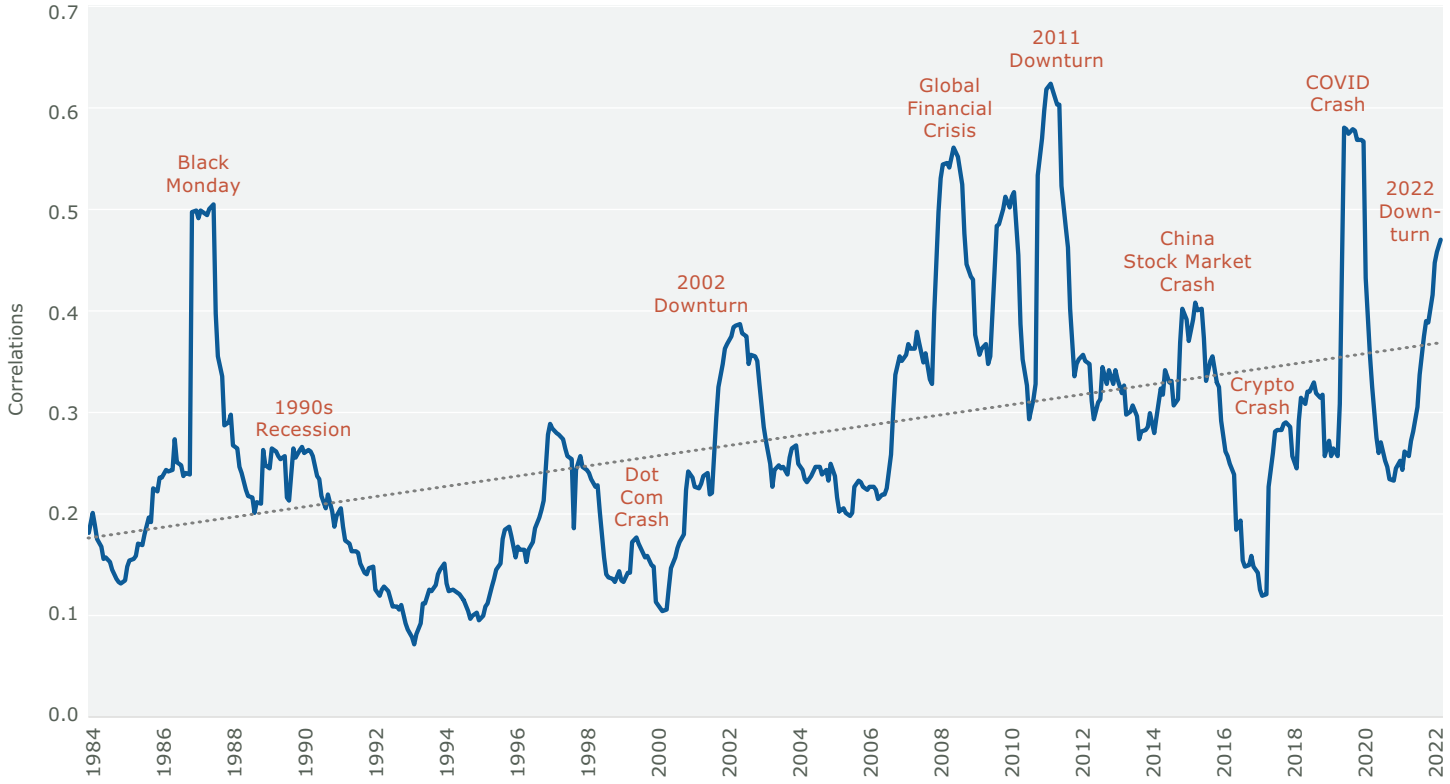
Pairwise Stock Correlations

During market drawdowns, equity investors face rising pairwise correlations, as shown in Figure 10. Yet, these environments are exactly when you need diversification, making drawdown mitigation only possible with opportunistic hedging.

FIGURE 10

ROLLING 250-DAY PAIRWISE CORRELATIONS

Source: FactSet; S&P 500 unweighted 250-day pairwise correlations (November 1984 - December 2022)



Time-Varying Cross-Asset Correlations

Diversification across asset classes can help mitigate capital losses, but cross-asset class correlations are affected by various factors. Traditional bond, commodity, and currency diversification benefits have become less predictable, as shown in Figures 11A, 12A, and 13A. One-year correlations have varied widely, as seen in Figures 11B, 12B, and 13B. What's worked in the past won't necessarily work in the future, especially over the short term, and most investors don't have policy allocations with that kind of variability.

Cross-asset class diversification offers risk reduction and return enhancement but can be challenging to implement and manage. Each asset class and market has unique risk and return characteristics, requiring specialized expertise. What's more, liquidity and governance costs make adjusting allocations as market conditions change impractical.

FIGURE 11A

HISTORICAL STOCK-BOND CORRELATIONS

Source: FactSet; S&P 500 and Bloomberg U.S. Aggregate Bond Indexes (1978-2022)

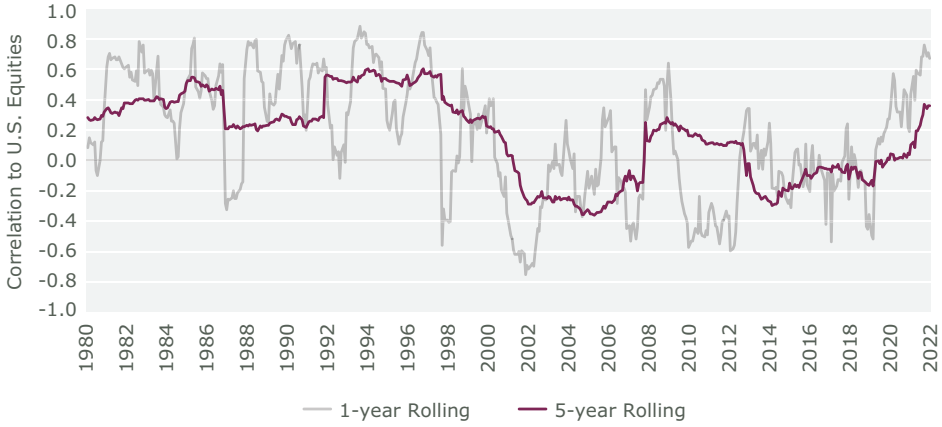


FIGURE 11B

RANGE OF 1-YR CORRELATIONS

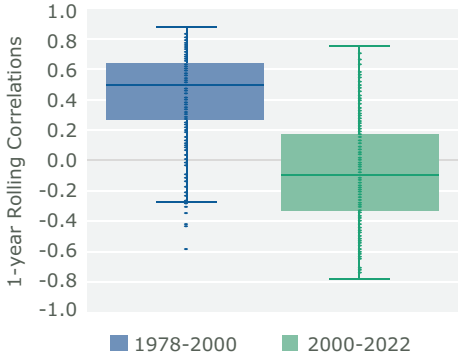


FIGURE 12A

HISTORICAL STOCK-COMMODITY CORRELATIONS

Source: FactSet; S&P 500 and S&P GSCI Indexes (1978-2022)

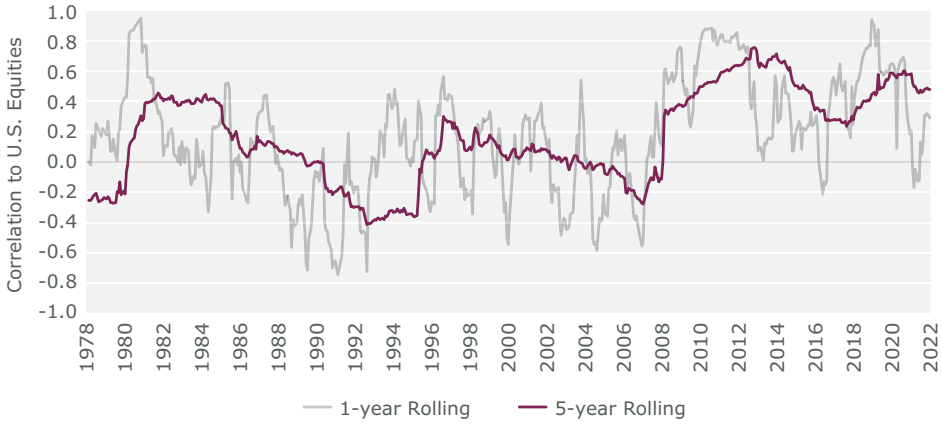


FIGURE 12B

RANGE OF 1-YR CORRELATIONS

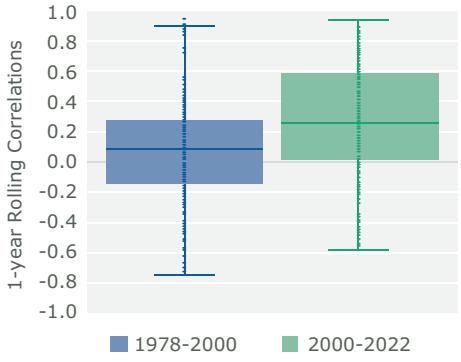


FIGURE 13A

HISTORICAL STOCK-DOLLAR INDEX CORRELATIONS

Source: FactSet; S&P 500 and S&P GSCI Indexes (1978-2022)

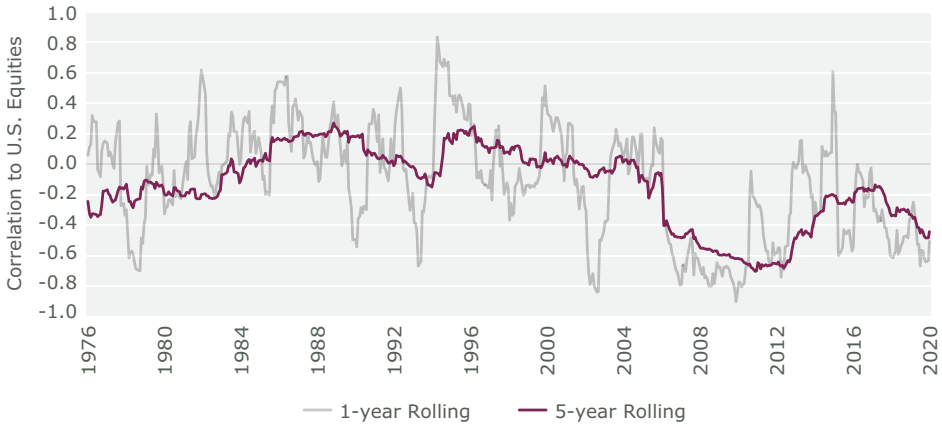
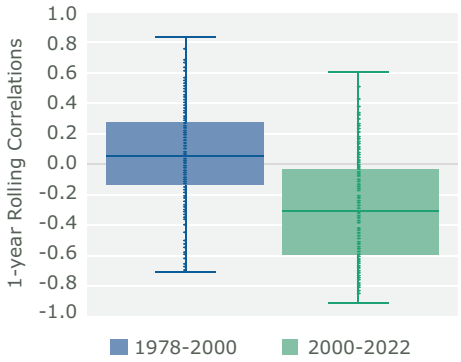


FIGURE 13B

RANGE OF 1-YR CORRELATIONS



Revolution in Equity Strategies: Navigating Time-Varying Risks

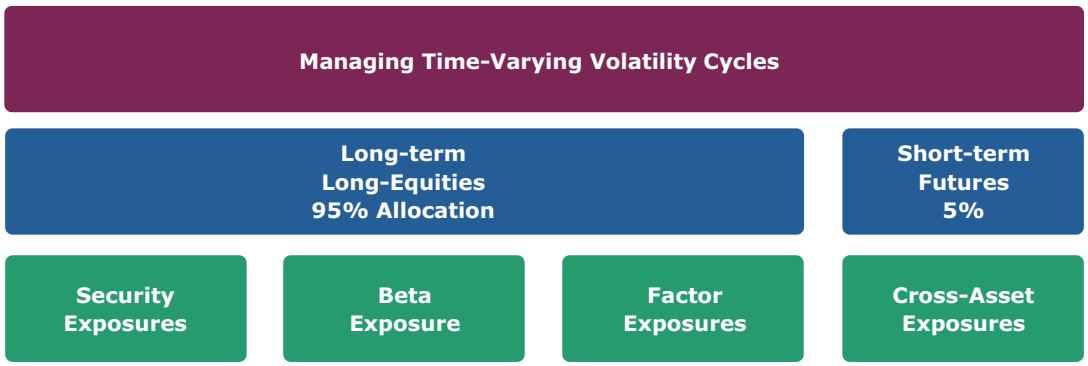
In the face of unprecedented challenges characterized by time-varying risks — heightened volatility, frequent drawdowns, and shifting cross-asset correlations — traditional risk management tools fall short of delivering alpha without compromising risk management. Consequently, investors must explore innovative approaches that can adapt to the complexities of the modern market environment.

Alpha with Resiliency

Innovation should focus on delivering equity alpha in all risk regimes — an all-season equity strategy that systematically adjusts exposures in response to short- and long-term risk cycles and offers convexity to hedge tail-risk events. We believe a 5% cash allocation from an equity strategy to collateralize a multi-asset, exchange-traded futures strategy can fulfill this objective (Figure 14).

By meticulously integrating managed futures into equity strategies, this approach potentially provides investors with a robust, versatile, and responsive portfolio, redefining how they manage risk and achieve their investment objectives in today's challenging markets.

FIGURE 14
NEW PARADIGM FOR RISK MANAGEMENT



This subtle combination **provides the time-varying risk management required for today's markets while retaining the performance contours of a typical large-cap core equity strategy.** Moreover, it has the potential to create a risk and return profile superior to what each component could create separately.

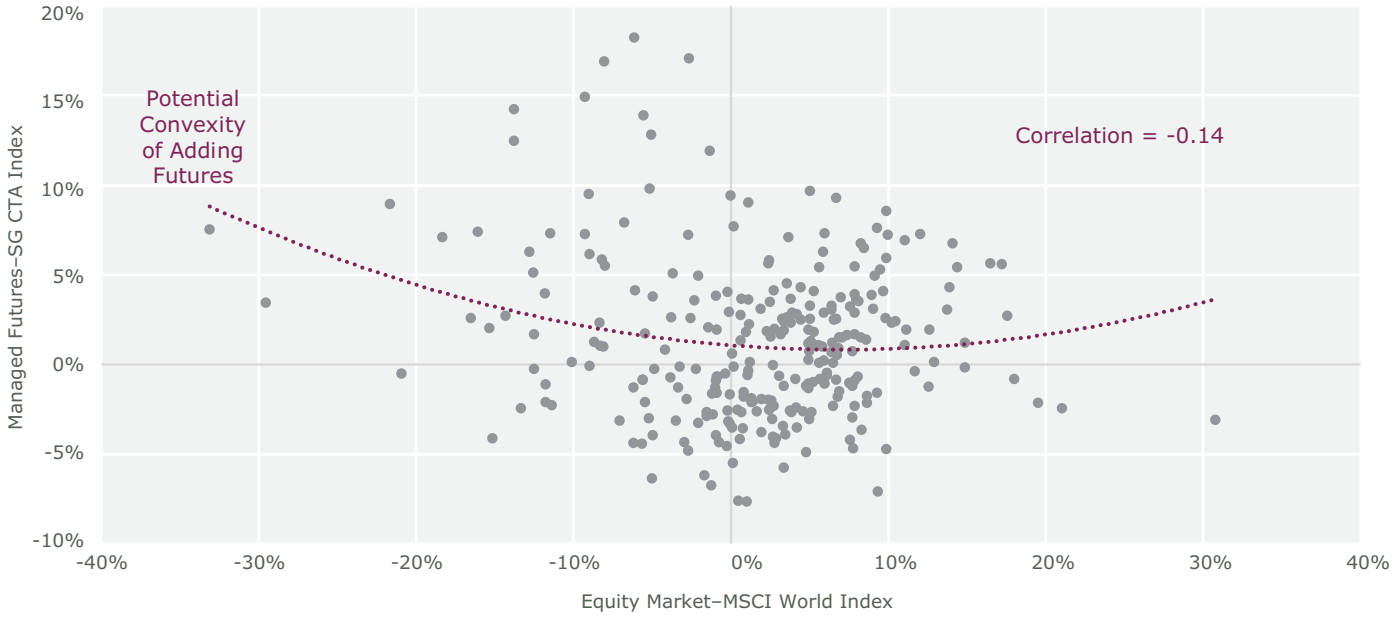
Convexity in Tail-Risk Events

The relationship between equities and managed futures is convex, which means that as one asset class experiences losses, the other asset class may experience gains (Figure 15). This non-linear relationship offers several potential benefits for investors, including better diversification, greater risk reduction, and improved risk-adjusted returns.

FIGURE 15

ROLLING 3-MO EQUITY RETURNS VS. MANAGED FUTURES RETURNS

2000-01-01 to 2022-12-31[1]



1. Managed futures index is the SG CTA Index. Source: BarclayHedge for SG CTA Index and MSCI for MSCI World Index. The data presented reflects past performance, which does not predict future returns. For illustrative purposes only.

By including managed futures in an equity portfolio, investors increase diversification within and across asset classes, helping reduce equity and overall portfolio risk while potentially improving returns. This convex relationship can also help improve the stability and resilience of the equity portfolio, particularly in periods of market stress. And because managed futures strategies are designed to take advantage of market inefficiencies and mispricing, their integration can potentially lead to enhanced outcomes.

Integration, Not Overlays

Instead of integrating equity and managed futures strategies, investors might consider a managed futures overlay. The latter approach theoretically seeks the same outcome, but in practice, we believe it's not as practical as an integrated solution (Figure 16) for several reasons:

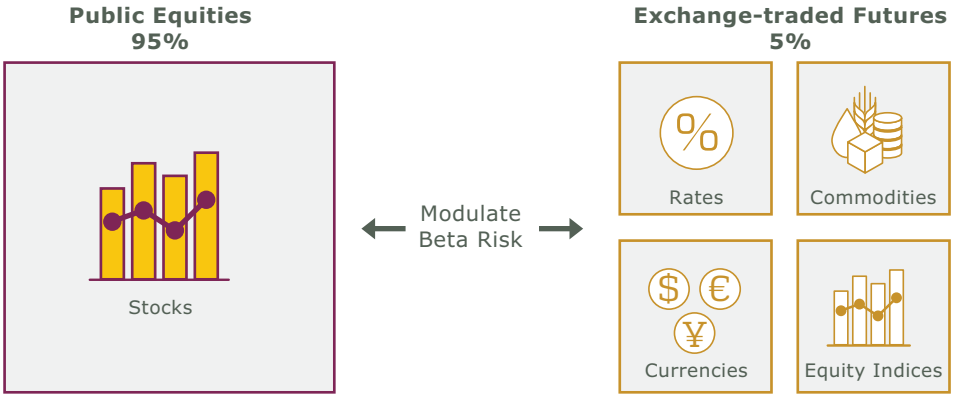
Performance Efficiency: An overlay may not be as responsive to changes in market conditions as an integrated strategy, limiting potential benefits. By combining equities and managed futures within a single structure, the integrated approach allows for a more dynamic response to evolving market risks.

Cost-Effectiveness: Integrating equities and managed futures strategies can lower implementation costs, as the portfolio manager can manage both portfolio components within the same structure. This can potentially reduce trading costs and simplify the overall investment process.

Capital Efficiency: An integrated approach uses margin more effectively. The margin requirements for managed futures can be offset by the margin available in the equity portion of the portfolio, providing more efficient use of capital. This advantage is unavailable in an overlay structure, where the margin for managed futures is separate from the equity component, potentially leading to higher margin requirements and less efficient capital utilization.

Governance Cost: An integrated solution potentially reduces governance costs by streamlining decision-making processes, minimizing multiple layers required for oversight, and mitigating or eliminating tactical decisions.

FIGURE 16
EQUITY FUSION: INTEGRATING EQUITIES AND MANAGED FUTURES



Modernize Your Equity Strategies

An innovative and resilient approach to equity investing is needed to navigate modern market risks. Integrating managed futures into equity strategies has the potential to create a robust, all-season portfolio that adjusts to short- and long-term risk cycles. This fusion not only potentially offers better diversification and potential risk reduction but also enhances the portfolio's resilience during periods of market stress. As the investment landscape continues to evolve, adopting a forward-thinking strategy that addresses the challenges of today's markets is crucial for long-term investing success.

Conclusion

Equity investors today face unprecedented challenges in an unpredictable market environment, characterized by time-varying risks such as heightened volatility, frequent drawdowns, and shifting cross-asset correlations. Traditional risk management tools often fall short in addressing these complexities without negatively impacting alpha, so investors must look towards innovative approaches that can adapt to the evolving landscape.

Our paper highlights the importance of addressing time-varying risks and presents a compelling case for integrating managed futures into equity strategies. This integration creates a versatile, all-season portfolio that systematically adjusts to short- and long-term risk cycles, offering convexity to hedge tail-risk events. By combining equities and managed futures, investors can potentially achieve better diversification, risk reduction, and improved risk-adjusted returns.

Furthermore, based on our demonstrations, an integrated approach is more capital-efficient, performance-efficient, and cost-effective than a managed futures overlay, ultimately simplifying the investment process and optimizing outcomes.

In this era of market uncertainty, it is crucial for investors to adopt forward-thinking strategies that address the challenges of today's markets while maintaining the potential for long-term success. By embracing the integration of managed futures in equity strategies, investors are better positioned to navigate the complexities of the modern financial landscape and achieve their investment objectives.

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Locations

HEADQUARTERS
250 South Australian Avenue
Suite 1700
West Palm Beach, FL, 33401
United States of America
+1-561-775-1100

Contacts

NORTH AMERICA
John F. Brown
EVP, Head of Global Client Development
jbrown@intechinvestments.com
1-561-775-1163

INTERNATIONAL
David Schofield
President, Intech International
dschofield@intechinvestments.com
+44 (0)7812 144865

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