

| Mackenzie Global Quantitative Equity Team

Unlocking alpha efficiency through active extension strategies

Institutional investors today face a dual challenge: the need to achieve sufficient equity returns to meet long-term goals, while also mitigating risk in an increasingly concentrated and volatile market. Traditional long-only strategies provide broad market exposure but often struggle to generate excess returns without introducing concentration risk. On the other hand, hedge fund strategies, while aiming to deliver higher excess return and downside protection, come with high fees, complexity and liquidity constraints, making them less desirable for many investors.

This has led to a growing demand for alternative equity strategies that deliver higher returns while maintaining full market exposure with effective risk management. Extension strategies have emerged as a compelling option, bridging the gap between traditional long-only and hedge fund portfolios, offering the flexibility to capture more alpha potential from both long and short positions without significantly deviating from the risk parameters of traditional mandates.

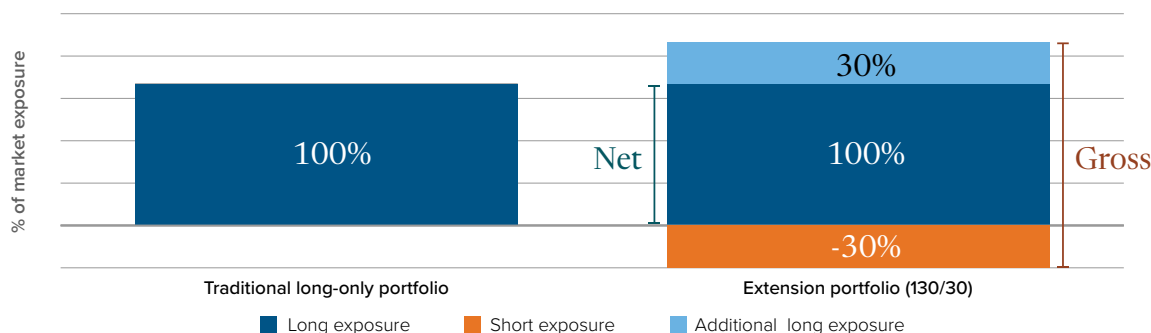
This paper explores the evolving landscape of equity extension strategies, as well as the theoretical structure and foundation of active extension strategies, focusing on the risk-adjusted return profile of the strategies compared with traditional long-only approaches. Additionally, the paper discusses key operational and implementation challenges, while clarifying common misconceptions investors may hold about extension strategies.

Defining extension strategy

Extension strategies allow investors to take both long and short positions while maintaining full market exposure (providing a beta of one). A common example is the 130/30 strategy, where 130% of the portfolio's assets are invested in long positions and 30% in short positions, resulting in a net exposure of 100%. The proceeds from the short sales (30%) are invested to increase the long exposure to 130%. As a result, the gross market exposure is amplified to 160%, which reflects the total combined exposure of both long and short positions. Other variations, such as 120/20 and 150/50, adjust the level of shorting depending on risk appetite and alpha (excess return) objectives.



FIGURE 1 – Traditional long-only vs. extension strategy exposure



The primary objective of an extension strategy is to enhance risk-adjusted returns by relaxing the constraints of traditional long-only portfolios. These relaxed constraints allow managers to express their views both on securities expected to outperform as well as those expected to underperform. This enables managers to capitalize on both upward and downward price movements. It also expands the opportunity set which can increase potential alpha generation. These strategies are particularly advantageous for quantitative managers, as their systematic processes allow them to model and rank securities across their entire investment universe, providing a shortlist of both long and short candidates by selecting highly ranked stocks for the long portfolio and poorly ranked stocks for the short portfolio.

FIGURE 2 – Comparing the investment parameters across a spectrum of various investment strategies, ranging from passive and enhanced index strategies to active extension and long/short approaches

	Passive strategies	Active strategies					
		Enhanced index	Extension	Benchmark focused	Unconstrained (opportunistic/specialist)	Market neutral	Long/short
Active share	0%	Low	Medium	Medium	High	High	High
Long exposure	100%	100%	110%-150%	100%	100%	Variable	Variable
Short exposure	NA	NA	10%-50%	NA	NA	Variable	Variable
Typical tracking error range	<1%	<1%	3-7%	2-6%	>5%	NA	NA
Excess return targets	0%	0.5-1%	3%	1-2%	>3%	3-5%	>5%
Information ratio targets	0.0	>1.0	>1.0	0.5-1.0	0.5-1.0	NA	NA
Beta	1.0	1.0	1.0	1.0	1.0	0.0	0.3-0.7

We aim to differentiate extension strategies from market neutral and long/short equity strategies. While these approaches share certain characteristics, they differ in key metrics such as net and gross exposure, and beta. A key advantage of extension strategies is their portable alpha component, which offers investors the flexibility to enhance alpha generation potential within their overall portfolio without altering its overall market exposure or risk profile.



In contrast, market neutral strategies maintain equal long and short exposure (e.g., 100% long and 100% short), resulting in a net exposure of 0% and a gross exposure of 200%. By design, they typically maintain a beta of zero, aiming to neutralize market risk and generate absolute returns independent of market direction. Long/short equity strategies are more flexible in adjusting net market exposure. Depending on the ratio of long to short positions, these strategies can be either net long or net short, allowing managers to express directional market views. As a result, net exposure can range from a net short position (e.g., 80% long and 110% short) to a net long position (e.g., 120% long and 50% short), with a beta typically ranging from 0.3 to 0.7.

Evolution of extension strategies

In the aftermath of the early 2000s bear markets, institutional investors began seeking innovative approaches to generate alpha amid heightened market volatility. This led to the rise of relaxed-constraint strategies, including market-neutral, long/short and extension strategies, as investors desired more flexible portfolio construction methods beyond traditional long-only mandates.

However, the summer of 2007 marked a sharp and unexpected unwinding of crowded trades across multi-strategy and quantitative portfolios, triggered by margin calls and deleveraging pressures, which led to significant losses across long/short and extension strategies (In contrast, recent advances in machine learning, natural language processing, and large language model tools have significantly broadened sources of alpha for quantitative strategies, reducing the likelihood of similarly crowded trade scenarios). The resulting liquidity-driven sell-off eroded investor confidence and prompted a temporary retreat from leveraged and complex strategies in favour of simpler, more transparent solutions.

Following this crisis, extension strategies gradually regained popularity around 2011, supported by advances in risk management, improved transparency and a growing demand for higher returns in a persistent low-yield environment. Today, extension strategies are often viewed as a middle ground between traditional long-only portfolios and highly leveraged hedge funds. By employing a moderate level of leverage, these strategies offer enhanced risk-adjusted return potential, while avoiding the high risks and costs associated with hedge funds. Their balanced return and risk profile continues to appeal to investors seeking to enhance return potential while preserving transparency and risk control.

Benefits of relaxing long-only constraints

Extension strategies offer compelling advantages that extend beyond simple leverage. While leveraging a traditional long-only portfolio may increase expected returns, it also proportionally increases total risk, leaving the information ratio unchanged. In contrast, relaxing the long-only constraint enhances risk efficiency by improving how effectively alpha signals are translated into portfolio positions. Rather than simply scaling exposure, extension strategies enhance implementation by allowing a fuller expression of both positive and negative insights. This enables a greater reliance on the predictive power for each unit of risk taken.

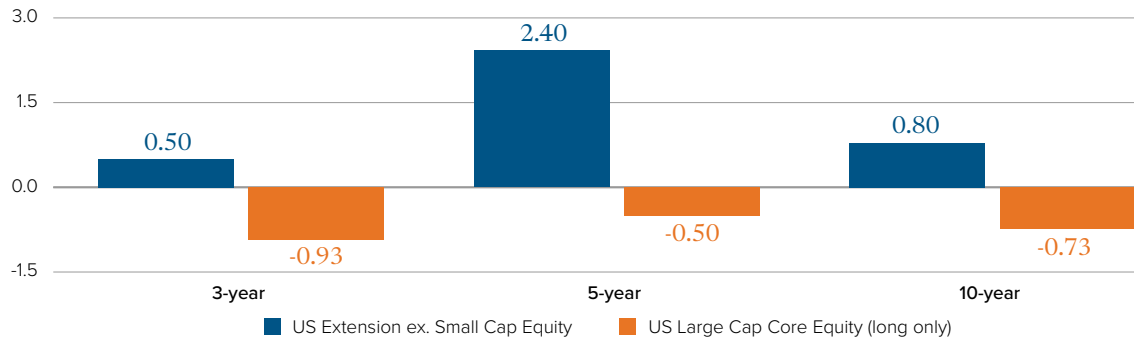
A key measure of this improvement is the transfer coefficient (TC), which captures how efficiently a manager translates forecasted alpha signals into actual portfolio weights. Empirical simulations and academic analysis consistently find that transitioning from long-only portfolios to a 130/30 structure significantly enhances the transfer coefficient, leading to a proportional rise in the portfolio's information ratio, without requiring any enhancement to the alpha model itself. Clarke, DeSilva and Sapra (2004)¹ also demonstrated that a 130/30 strategy can capture approximately 90% of efficiency gains of a fully unconstrained 200/100 portfolio. Their research found that the long-only constraint is the dominant source of inefficiency, and that a modest level of shorting, around 30%, is sufficient to materially improve alpha capture without introducing excessive leverage or operational complexity.



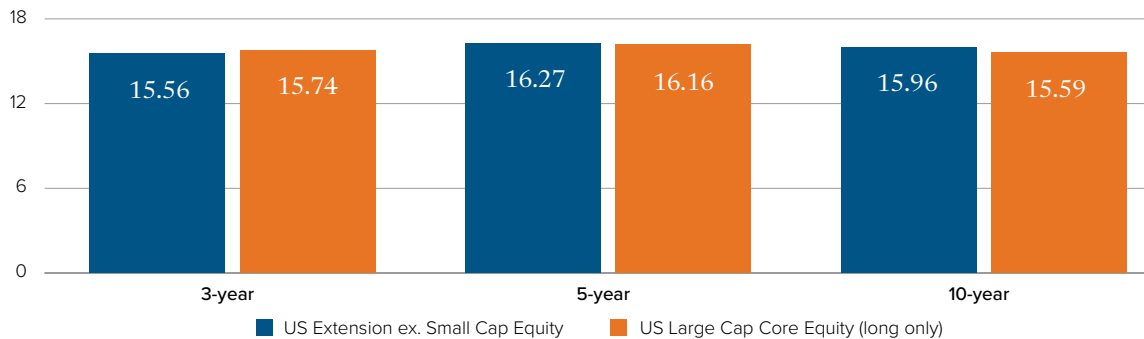
As shown in Figure 3, US extended equity strategies (excluding small cap) delivered higher excess returns and information ratios than their US large cap core equity (long-only) peers over three-, five- and 10-year periods, while maintaining comparable levels of risk. This reinforces the value of extension strategies as a more efficient, scalable and risk-aware framework for active equity management, particularly when implemented through a disciplined, quantitative approach.

FIGURE 3 – US extended equity strategies (excluding small cap) have outperformed US large cap core equity (long only) strategies on an absolute and risk-adjusted basis.

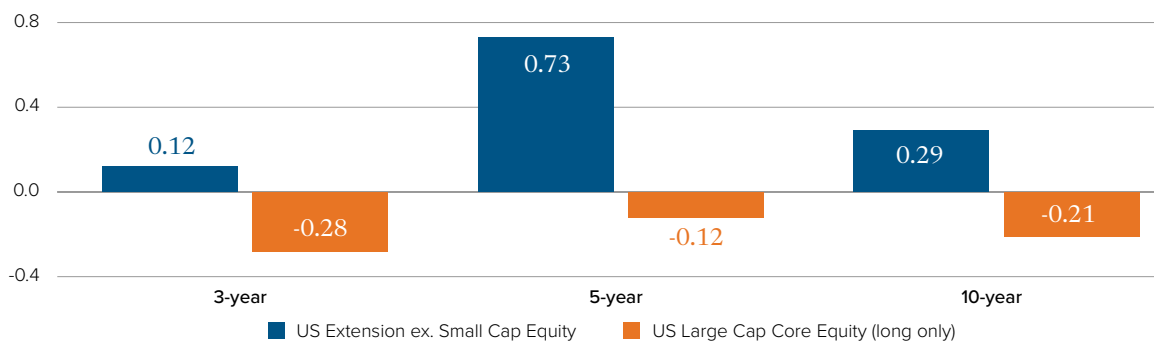
Excess return



Standard deviation



Information ratio



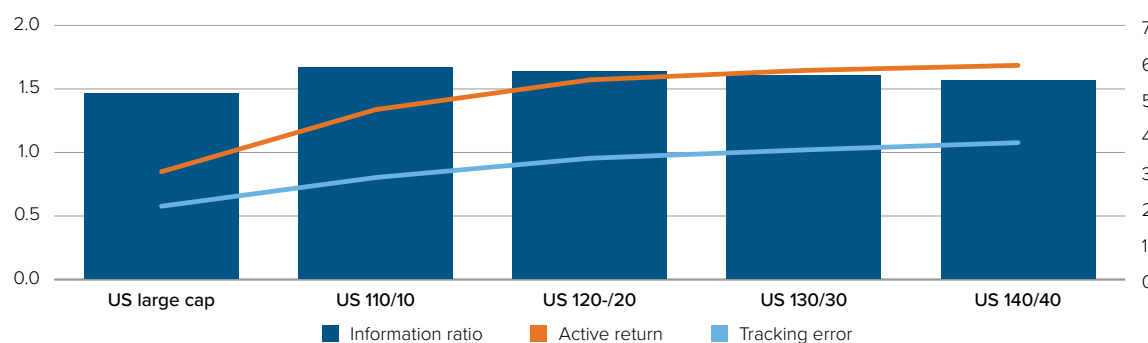
Source: eVestment, June 30, 2025. Excess returns, standard deviations and information ratios are all relative to each product's preferred benchmark.



Determining the optimal level of shorting

Empirical research has shown that the efficiency gains from active extension strategies tend to plateau as short exposure increases beyond 30-40% of the portfolio assets. Our simulation results highlight the incremental performance benefits achieved by relaxing long-only constraints through a series of hypothetical extension portfolios with different levels of shorting, ranging from 10% to 40%. As illustrated in figure 4, the most notable improvement in the information ratio occurs at the initial shift, moving from a traditional long-only US large cap core equity portfolio to a 110/10 structure. As short exposure increases further, from 120/20 to 130/30 and 140/40, active returns continue to rise, but with diminishing marginal benefits.

FIGURE 4 – Simulated US large cap core equity (long-only) vs. US extended equity strategies (excluding small cap), 110/10, 120/20, 130/30, 140/40



Source: Mackenzie Global Quantitative Equity Team, October 31, 2024.

As a result, the 130/30 structure is often viewed as a balanced approach for many investors, offering most efficiency gains while maintaining operational feasibility. While the 130/30 structure is often cited as a balanced approach, there may be scenarios that allow a manager to dynamically adjust their level of extended exposure. For example, in periods of high cross-sectional dispersion, managers may identify more compelling short opportunities, warranting increased short exposure (e.g., shifting to 140/40). Conversely, in low-dispersion environments, a more conservative structure like 110/10 may be more appropriate. Additionally, if manager's alpha model signals a concentrated set of high-conviction long and short ideas, expanding the level of extension can enhance portfolio efficiency. During periods of market stress or reduced liquidity, scaling back short exposure may help mitigate downside or operational risk.

Institutional investors should consider granting portfolio managers discretionary flexibility to adjust the level of extended exposure within a defined range. This flexibility enables managers to respond dynamically to changing market conditions, alpha opportunities and risk environments.

Quantitative versus fundamental approach

Extension strategies can be implemented using either a quantitative or fundamental investment approach. While both aim to identify outperformers and underperformers, quantitative strategies typically offer scalability, consistency and more-disciplined risk management. Quantitative managers rely on systematic models to rank securities across large pre-determined stock universes, enabling them to effectively generate alpha insights for both long and short positions. This scalability is particularly critical for extension portfolios, where managers identify not only high-conviction long-only names, but also short candidates in a consistent and repeatable manner.



In addition, quantitative approaches may embed systematic risk constraints such as exposure limits by sector, country, beta, capitalization and position limits, directly into the portfolio construction process. These constraint-based models are continuously monitored and updated to reflect the changing market dynamics, helping managers maintain portfolio neutrality and control active risk.

In contrast, fundamental approaches tend to be resource-intensive and less scalable, making it difficult to apply deep analysis across a broad range of stock universes. This limitation is especially pronounced on the short side, where expressing negative views on small index constituents can be challenging. For example, a long-only manager can only underweight a 0.3% index stock by not owning it, whereas an extension strategy allows for a more meaningful short position. Quantitative models excel in this context by systematically evaluating a wide range of small index constituents, enabling more precise expression of negative forecasts that would be difficult to achieve through traditional fundamental research alone. Moreover, fundamental managers often rely on discretionary judgement, which can introduce variability and bias in both risk exposure and position sizing.

Operational and implementation challenges

Active extension strategies offer compelling theoretical benefits, including greater flexibility and enhanced alpha potential. However, their successful implementation requires addressing significant operational complexities and risk management demands that exceed those of traditional long-only mandates.

Key operational considerations include establishing and maintaining robust partnerships with prime brokers to manage borrowing logistics, collateral requirements and corporate actions. Borrowing constraints and market efficiency also pose additional hurdles. Shorting depends on the availability of shares to borrow, which can be particularly limited in small-cap or less liquid markets, leading to potentially higher transaction costs and risks of slippage. Operational challenges are especially pronounced in markets like Taiwan, where securities lending pools are limited, margin requirements are higher and shorted shares are frequently recalled around earnings or corporate actions. These factors can introduce volatility, force covering of short positions and result in unanticipated costs or missed alpha opportunities.

Portfolio construction risks also increase in active extension strategies, particularly due to heightened exposure to gross leverage, beta drift and variability in tracking error. For instance, when long and short positions exhibit asymmetric factor exposures, they can contribute disproportionately to active risk. In such cases, developing a more sophisticated portfolio construction model becomes essential to ensure that key exposures such as tracking error, alpha, beta and risk factors remain aligned with portfolio objectives and expectations.

Regulatory and compliance considerations around short selling, such as disclosure requirements and uptick rules, can further limit flexibility in shorting. In some emerging markets, where direct shorting is restricted, reliance on derivatives or swaps to replicate short exposure may increase both costs and counterparty risks. Overall, managing these operational and implementation challenges requires advanced infrastructure, an experienced investment team and continuous oversight to preserve the risk-adjusted advantages of extension strategies.



Addressing misconceptions about extension strategies

Despite their growing adoption, extension strategies are often misunderstood and subject to skepticism among some investors. One prevalent misconception is that these portfolios are inherently “hedged” or “low risk” due to their use of long and short exposures. This confusion often arises from comparisons to market-neutral and other hedge fund strategies. However, unlike market neutral strategies that aim for zero net market exposure (i.e., beta close to 0), extension strategies are fully exposed to market beta, which means it behaves much more like a traditional long-only portfolio in terms of market sensitivity.

Another common misunderstanding is that extension strategies provide the same level of downside protection as long/short hedge funds. This belief stems from the intuitive assumption that short exposure will offset losses during market downturns. In practice, extension strategies typically have tighter risk budgets, are benchmark-aware, and don't use short positions to hedge market risk but rather to enhance alpha by predicting underperforming stocks. As a result, these strategies can underperform during broad market sell-offs or periods of factor stress. For example, during the quant crisis in the summer of 2007, many long/short and extension strategies experienced significant losses. In such an environment, short positions may not offset losses but instead amplify risk, particularly when long and short signals are driven by the same underlying factor themes.

Conclusion

Active extension strategies offer a powerful evolution in active equity investing by addressing the structural inefficiencies of long-only approaches. By modestly relaxing the long-only constraint, managers can express both positive and negative investment insights to enhance portfolio efficiency without materially increasing risk or complexity. Empirical evidence consistently demonstrates their ability to improve risk-adjusted returns and information ratios compared to traditional methods.

While operational challenges and risks, such as liquidity constraints, regulatory compliance and leverage, require careful management, the benefits of active extension strategies outweigh the hurdles for well-equipped managers. The approach is particularly effective in volatile markets with high return dispersion and offers flexibility across geographies and market segments.

Active extension strategies may provide a balanced solution for institutional investors seeking higher alpha without excessive tracking error, making them a compelling alternative to passive and long-only equity allocations in today's complex market environment.

¹ Clarke, R., de Silva, H., & Sapra, S. “Toward More Information-Efficient Portfolios.” *Journal of Portfolio Management*, Fall 2004.

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