Active Extension

A Potential Solution for Improving Equity Returns

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Executive Summary

With equity valuations elevated and future return expectations subdued, investors face mounting challenges in meeting long-term objectives through traditional passive or long-only active allocations. Active Extension ("AE")—a long-short framework that uses modest leverage to short less attractive stocks and overweight more attractive stocks—offers a liquid, capital-efficient alternative. By relaxing the long-only constraint, AE enhances active risk efficiency, mitigates index concentration, and expands the opportunity set for generating alpha. Historical evidence shows that well-managed AE strategies have delivered higher active returns than long-only peers,[1] potentially translating into meaningfully greater long-term wealth. When implemented by skilled managers with experience in shorting, trading, and risk control, AE may improve diversification and portfolio efficiency—providing investors with a compelling approach to active equity investing in today's challenging environment.

[1] Refer to Exhibit 5 herein.

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Introduction

With equity market valuations stretched, achieving desired long-term portfolio returns through passive equity exposures has arguably become bleaker. Investors turning to long-only active equity management to make up the gap have been largely disappointed, causing them to increasingly look to alternative investments such as private equity.[2] We believe a simpler solution may be easily accessible in liquid public equity markets.

Active Extension ("AE") is a well-established but often overlooked approach.[3] In a concentrated market where many stocks have tiny weights in the benchmark index, an active manager's ability to express negative views on those stocks is severely curtailed. AE relaxes the long-only constraint, enabling managers to express their views more effectively. AE may be a helpful tool in an environment where equity market returns may be muted going forward and may mitigate long-only obstacles, such as highly concentrated index composition (e.g., the "Magnificent 7" issue) and limits to expressing intended active views.

The aims of this note are as follows: to inform readers on methods to actively invest in equity markets while taking full advantage of techniques that are often forgotten or put to the side; to highlight how certain types of risk may be reduced while other types of risk may be used to an investor's advantage; and to demonstrate the construction of a portfolio that has a higher chance of achieving long-term return goals.

Importantly, AE may benefit active investors at any point in time, but given the conditions allocators and asset owners face today, we believe now is an opportune time to remind investors of this valuable approach.

What is Active Extension?

Today, many equity indices used as benchmarks are highly concentrated.[4] The aggregate weight of the so-called "Magnificent 7" in widely followed U.S. large cap indices is well known; however, this is a global phenomenon. For three major indices, Exhibit 1 compares the median weight of the top 25

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[2] Two important points to note. First, the disappointment with long-only active equity management has largely been concentrated in higher active risk mandates. Second, poor historical industry results do not rule out the possibility of successful long-only active management. Indeed, some managers may offer active strategies expected to outperform their benchmark indices. However, long-only implementations may be limited in the magnitude of tracking error that they can generate. So, a low tracking error strategy, even with a high information ratio, may still fall short of some investors' return objectives.

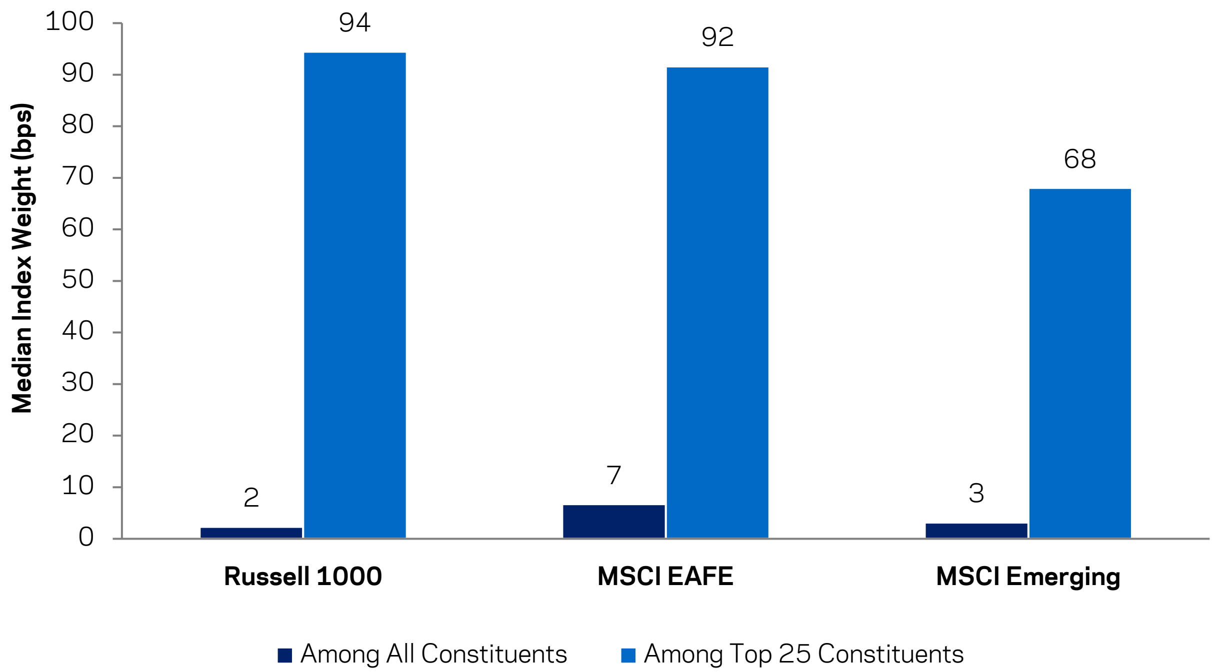
[3] Refer to "Understanding Relaxed Constraint Equity Strategies" (AQR 2017) and "Relaxed-Constraint Portfolios" (AQR Alternative Thinking 2016 Issue 2).

[4] A systematic approach to mitigating the problems associated with index concentration in long-only active management is discussed in "A New Paradigm in Active Equity" (Brixton et al., 2025).

stocks (e.g., 0.92% for MSCI EAFE) to the median weight among all constituents (e.g., 0.07% for MSCI EAFE).[5] This implies that many long-only active managers take on significant active risk by going underweight the largest stocks, which significantly drive overall index returns, whereas underweights of smaller stocks will have a negligible effect.

Exhibit 1: Median Benchmark Weights

As of September 30, 2025



Source: AQR, Russell, MSCI. Chart shows the median index weight as of September 30, 2025, for all securities in the index, and for the top 25 constituents by market capitalization. Data is subject to change.

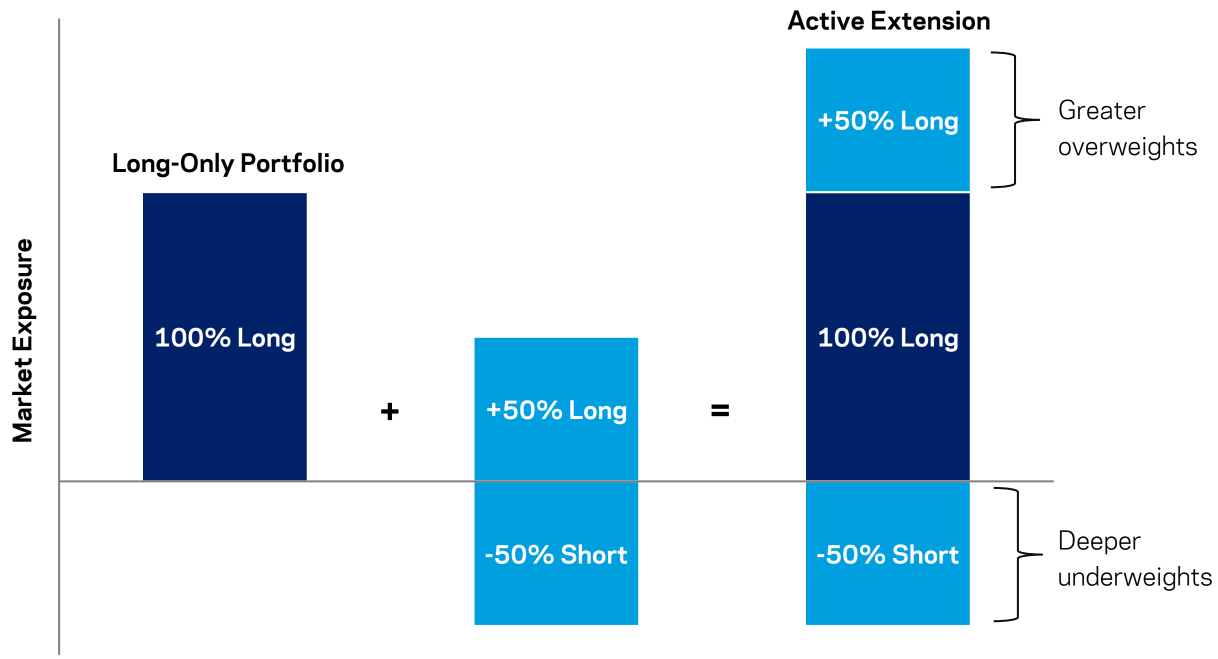
AE solves this problem by allowing investment managers to apply a modest amount of leverage, and thereby to sell short stocks they believe are likely to underperform the index and using the proceeds to overweight stocks they believe are likely to outperform the benchmark. Now, rather than being forced to go underweight larger stocks to fund positions in smaller stocks, the manager can sell short unattractive stocks and use the proceeds to finance positions in more attractive stocks.

This concept is depicted in Exhibit 2, which shows an illustrative "150/50" portfolio where a total of 50% of the portfolio's net value is sold short to finance a total of 150% in long positions. This final

[5] We would also show the median weights of the 25 smallest constituents, but the bars would be virtually indistinguishable from the x-axis line.

portfolio has a net exposure of 100% (i.e., beta 1 to the benchmark) but employs modest leverage to achieve a gross exposure of 200% (150% long + 50% short).

Exhibit 2: Active Extension Allows Managers Greater Flexibility



	Long-Only	Active Extension
Gross Leverage	100%	200%
Net Leverage	100%	100%

Source: AQR. For illustrative purposes only and not representative of a portfolio AQR currently manages.

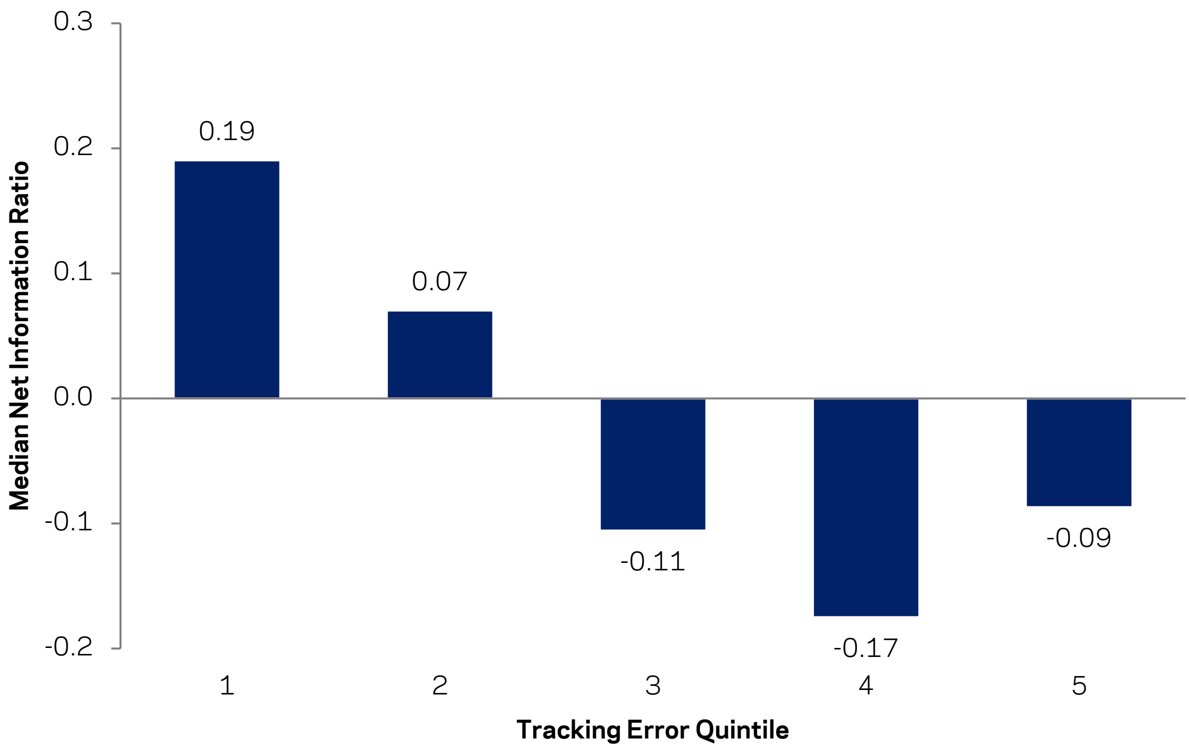
Why Have I Not Been Compensated for Taking Active Risk?

Investors must take active risk if they want to achieve higher returns than the market. One commonly used measure of investment risk in active equity portfolios is tracking error, the amount that investment returns are likely to differ, positively or negatively, from the benchmark. If skillful managers are selected, the expectation is that higher tracking error leads to higher active returns. The disappointing truth is shown in Exhibit 3, which indicates that for long-only managers, lower tracking error portfolios have been better compensated, i.e., earned higher risk-adjusted active returns,[6] than higher tracking error managers.

[6] One measure of risk-adjusted active returns is the information ratio (IR), which is defined as the average active return divided by the tracking error (active risk).

Exhibit 3: Global Long-Only Median Information Ratio for each Tracking Error Quintile

October 1, 2015 – September 30, 2025

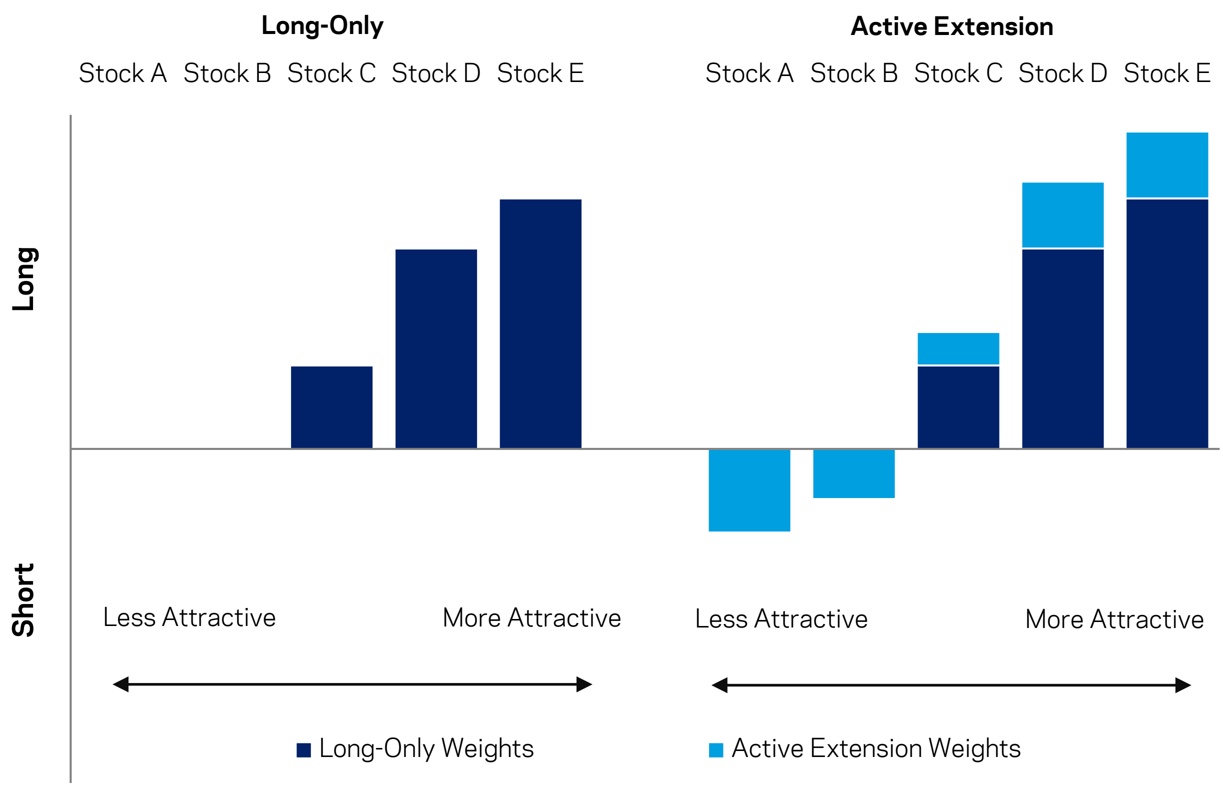


Source: AQR, eVestment. Time period is the trailing 10 years ending September 30, 2025. Information ratio (IR) is a measure of risk-adjusted active returns, defined as the average active return divided by the tracking error (active risk). We show the median net-of-fee information ratio per tracking error quintile for managers in the Global Large Cap Equity eVestment universe. Managers who do not have complete return series over the 120-month period have been removed from this analysis. Manager active returns are calculated by eVestment relative to manager-preferred benchmarks and are reported either gross or net of fees. For managers who report returns gross of fees, AQR converts the returns to net using the median fee of the universe. Please refer to the Appendix for more information on the manager universes.

What explains this contradiction? One possibility is that higher tracking error managers are less skilled. Another possibility is that the long-only constraint is simply difficult to overcome. Recall from Exhibit 1, the median index constituent across the three major market indices ranges from 0.02% to 0.07%. That leaves little latitude for an active manager to express unfavorable views, because the maximum level of conviction they can express on a negative view is 2 to 7 basis points of underweighting (i.e., the active risk of not holding the median stock). On the positive side, managers may "fund" favorable views by going underweight the largest index constituents, but that can also present challenges, particularly if the manager is neutral or even bullish on the largest stocks. For example, underweighting or not holding the "Magnificent 7" stocks from 2023-2024 may have been costly to a manager's prospects of outperforming the benchmark. In summary, remaining long-only while trying to be active means that implementing bullish views on smaller/average stocks risks leading to an underweight in larger names with high benchmark impact. This tradeoff is mechanically imposed by the long-only constraint when applied to a concentrated stock index or universe.

Exhibit 4 shows the flexibility that materializes when a manager can short their least attractive stocks and use the proceeds to overweight their most attractive stocks. While this illustration uses a five-stock universe, it can be applied to a much broader opportunity set.

Exhibit 4: Relaxing the Long-Only Constraint May Allow Better Capture of Positive/Negative Stock Views

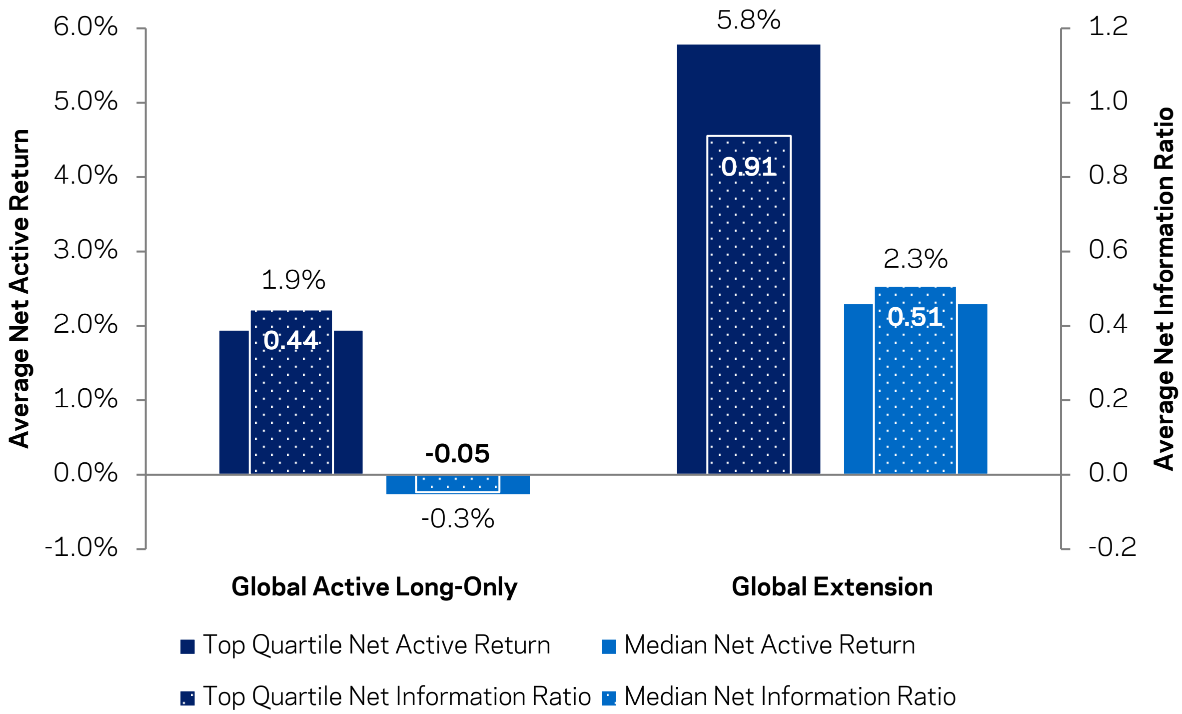


Source: AQR. For illustrative purposes only and not representative of a portfolio AQR currently manages.

Sounds Great in Theory, But Has It Worked in Practice?

Exhibit 5 shows that, at least over the last 10 years, AE portfolios have on average outperformed long-only constrained portfolios. This outperformance comes from improved capture of active return at higher levels of tracking error by enabling managers to more fully express both positive and negative views on stocks in their portfolios. In other words, as tracking error increases, the information ratio (i.e., risk-adjusted active return) is better preserved by relaxing the long-only constraint, resulting in higher active returns. This gain is potentially meaningful to long-term goals, with the median global extension manager outperforming the top quartile of global long-only managers.

Exhibit 5: Global Active Long-Only vs Global Extension eVestment Managers
October 1, 2015 – September 30, 2025



Source: AQR, eVestment. Time period is the trailing 10 years ending September 30, 2025. Global Active Long-Only and Global Extension are the Global Large Cap Equity and Global Extended Equity eVestment universes, respectively. For all managers in the universes, we calculate rolling 3-year average active returns (arithmetically averaged and annualized). We show the average top quartile return and average median return for the full period for both universes. Manager active returns are calculated by eVestment relative to manager-preferred benchmarks and are reported either gross or net of fees. For managers who report returns gross of fees, AQR converts the returns to net using the median fee of the universe. Please refer to the Appendix for more information on the manager universes.

Assuming a 6% equity benchmark return and 30-year horizon, a top quartile AE manager compounds 3 times more wealth than a top quartile long-only manager. Even assuming no manager selection skill, a median AE manager compounds 2 times more wealth than a median long-only manager.

Getting Comfortable with Leverage and Other Considerations

While AE does not use net leverage, its use of gross (i.e., long/short) leverage raises legitimate concerns. Once again, financial theory offers guidance by suggesting that optimal portfolios use some degree of leverage to monetize the benefits of diversification. We have published extensively on this subject,[7] and certain long-run market anomalies (such as low volatility or "low beta" investing) may owe their outcomes in part to leverage aversion. Indeed, history is riddled with cautionary examples of the misuse and abuse of leverage. However, we believe that leverage risk is manageable and that it is a mistake for investors to accept other forms of uncompensated risk, such as concentration risk, to avoid it. Exhibit 6 illustrates ways in which these risks can be managed in the pursuit of higher risk-adjusted returns. In addition to these best practices, leverage risk can be further mitigated by focusing on implementations favoring diversification, i.e., a large number of small positions instead of a small number of concentrated positions.

Exhibit 6: Best Practices for Managing Portfolio Leverage

Manage Volatility	Target portfolio volatility in a pre-defined range
Impose Exposure Limits	Employ sensible constraints to manage idiosyncratic risk
Trade Liquid Instruments	Maintain a portfolio of liquid and tradeable assets
Avoid Forced Deleveraging	Hold ample cash to maintain financing
Test Stress Scenarios	Be creative and conservative
Be Dynamic	Constantly reassess based on changing market conditions

Source: AQR. For illustrative purposes only. Diversification does not eliminate the risk of experiencing investment losses. Please read important information in the Disclosures section. List may not be exhaustive.

Furthermore, a successful AE manager should have a few other key capabilities. Most importantly, they should have a demonstrated ability in generating high quality short ideas. The results in Exhibit 5, higher active returns and higher risk-adjusted active returns, are consistent with the view that AE managers have added value on the short side of the portfolio.[8] Also, AE portfolios may require higher turnover to capture the full benefits of relaxed constraints. As a result, it's also important that the AE manager can trade both efficiently and cost-effectively.

[7] Refer to "Exploring Capital Efficiency" (AQR Alternative Thinking 2025 Issue 3), "Betting Against Beta" (Frazzini and Pedersen, 2014), "Why Do Most Investors Choose Concentration Over Leverage?" (AQR Alternative Thinking 2012 Issue 2), "Where the Wild Things Aren't: Using Derivatives and Leverage to Improve Portfolio Performance" (Asness et al., 2010), "Leverage Aversion and Risk Parity" (Asness et al., 2012), and "Investors: Financial Leverage Is Your Friend, Seriously" (Asness 2015).

[8] Some investors believe active extension managers add no value on the short side, but the managers still short securities to fund the long leverage. The results in Exhibit 5, better active returns and better risk-adjusted active returns, are inconsistent with this view.

For investors seeking to evaluate a manager's leverage, shorting, and trading capabilities, there is a simple but powerful rule of thumb to follow: Does the AE manager have a successful equity market neutral strategy? If the answer is yes, this should bring some comfort to a prospective investor since an equity market neutral strategy typically requires materially more leverage, shorting, and trading.

Beyond this, managers with decades of experience in navigating stressed market environments can add another layer of comfort. A history of strong counterparty relationships, liquidity, diversification, and expertise in managing levered strategies confirms that leverage can be employed effectively under both favorable and challenging conditions while maintaining robust risk controls.

Concluding Thoughts

To achieve return targets over the next decade, investors may need to carefully examine more capital efficient ways to invest. Active Extension is one such approach. By allowing a skilled manager to prudently use long-short leverage in the pursuit of higher active returns and higher quality returns (i.e., higher risk-adjusted returns), investors may be better positioned to achieve their investment goals when compared to long-only active management. While the risks of leverage should always be respected, experienced and skilled managers can benefit investors through its use. Investors should not eschew financial theory for the sake of conventionality.

Removing the long-only "handcuffs" from a skilled active manager is a better approach irrespective of specific market or macroeconomic environments. Active Extension should be seen as a core active equity solution—potentially improving the risk and return properties of investor portfolios.

References and Further Reading

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eVestment Manager Universe Descriptions

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