BlackRock

Portable alpha

Putting portfolio capital to its highest and best use





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- In today's complex market environment, investors are looking for ways to increase overall portfolio performance while maintaining a diversified¹ asset allocation.
- Portable alpha strategies can help investors balance the need for both higher returns and robust risk diversification.
- By separating the alpha and beta components of traditional asset classes, we believe portable alpha strategies help investors put their capital to its highest and best use.²

We continue to see investor interest in portable alpha strategies because they can help solve some of the drawbacks of inflexible strategic asset allocations.

In equity portfolios, we find that market capitalization is a common driver of portfolio asset allocation weights, but it is not an optimal starting point for active risk allocation.

In fixed income portfolios, we find that most managers have low active risk budgets and derive the majority of their active return from tilts into credit-sensitive securities — essentially delivering credit market beta and a potentially high correlation to equities.

Portable alpha strategies can help solve these issues across both asset classes. They can allocate active risk based on other alpha opportunity sets in equities, and they seek to help construct a more diversified source of active return than traditional bond portfolios.

These are just some of the ways that portable alpha strategies can help unlock portfolio capital to help investors build more diversified, higher risk-adjusted return portfolios.

¹ Diversification does not guarantee a profit or eliminate the potential for loss. The opinions expressed are those of the BlackRock Systematic Group as of September 2023 and subject to change with market conditions. 2 Clark, R., H. de Silva and S. Thorley. "Investing Separately in Alpha and Beta." CFA Institute. May 2009.

Defining portable alpha

The objective of a portable alpha strategy is to generate returns in excess of a specific market index such as the MSCI ACWI Index or Bloomberg U.S. Aggregate Bond Index.

A portable alpha strategy is composed of:

- 1 A target index exposure, or "beta" component
- A separate source of excess returns, or "alpha" component

Portable alpha strategies effectively separate the returns of a target index, or beta, and the returns of an alpha-seeking manager, or alpha. This separation seeks to allow the returns of the alpha component to be "ported" on top of whatever market index exposure is desired by an investor.

Mechanics of portable alpha strategies

There are three key steps to implementing a portable alpha strategy (Figure 1). First, the investor chooses a target index for their beta exposure. Second, the target index is replicated using market-linked instruments, which comes with a cash financing cost, but typically requires only a small amount of funds up front in the form of a margin requirement to achieve the exposure. As a result, there is excess cash to allocate capital. The final step in the process is to invest the remaining funds in an alpha source and a cash reserve.

Thus, the return generated by the overall strategy is a function of how much capital is allocated to the alpha source, how much return they generate, the return of the index exposure, and the cost to finance the index exposure.

It is important to note that in a portable alpha framework, the alpha-seeking manager is additive to the portfolio as long as they produce positive returns greater than the cost to finance the index exposure.

Understanding expected returns

Using the simplified example in Figure 1, let's assume that 100% of the target index exposure is created using market-linked instruments at a financing cost of 1.0%. Due to the fact that 40% of the index exposure is backed by physical cash (20% margin and 20% reserve), it can be reinvested in a cash rate to match the financing cost rate. Thus, the remaining 60% of exposure comes at a cost of 0.6%.

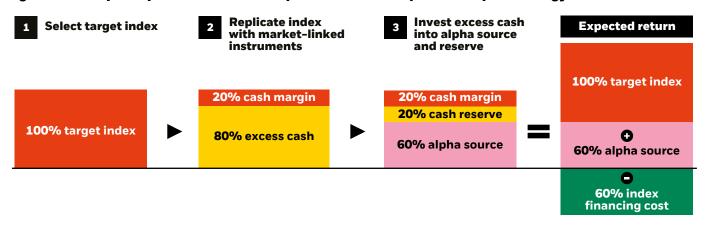
Next, the alpha-seeking manager is then looked upon to generate some level of positive return. As 60% of the overall portfolio is invested with the alpha-seeking manager, the investor would receive 60% of the alpha generated by the manager. If the alpha-seeking manager was targeting a return of the 5%, then the overall investment would have an expected return of the target index return plus 3% for the alpha source, minus 0.6% for the cash financing cost.

Overall, this would equate to a return to the investor equal to the market index return plus 2.4%.

Potential risks

Like all investments, there are potential risks involved in a portable alpha framework. Primarily, it is possible for the alpha-seeking manager to underperform the cash rate or generate negative absolute returns. Market-linked instruments may not perfectly track a market index over time, creating tracking error that may differ from initial return expectations. Secondarily, market-linked instruments have the potential for margin calls after large market moves that may require adjustments in the whole portfolio.





For illustrative purposes only. There is no guarantee expected returns will be realized. "Expected return" in the chart above assumes a 20% cash reserve and 20% cash margin that can be reinvested at the same rate as the cash financing cost to fund the market-linked instruments. Thus, the expected return is equal to the return of 100% market index plus 60% alpha source minus 60% cash financing rate.

Key consideration

Selecting an alpha source

Manager selection is critical to ensure alpha-seeking managers truly have limited market beta exposure. Rigorous analysis on the manager's return profile is required to achieve this. Investors must feel confident that they are not getting a tilt into risky assets, such as credit or equity, as this can result in additional market exposure above and beyond the target index.

While periods of underperformance may happen even for uncorrelated managers, the long-term goal of the alpha-seeking manager should be to generate returns that are uncorrelated to the target market index.

The key implication of a portable alpha framework is that if they seek above-market returns they don't necessarily have to choose a manager with an aggressive risk and return profile. A manager with an uncorrelated, and more defensive profile may increase the probability of consistently outperforming the financing rate overtime, and thus be additive. Figure 2 outlines some of the features we believe are most appropriate to consider for the alpha source selection.

Figure 2: Alpha source considerations

Does the alpha-seeking manager exhibit:

- A consistent history of returns in excess of cash financing costs
- A low correlation to the beta component of the portable alpha strategy
- A return profile independent of other market betas in the entire asset allocation
- A high-breadth portfolio that limits concentrated single security or factor bets
- A liquid underlying portfolio in case of funding shortfalls in the beta position

Based on the views and opinions of BlackRock Systematic Investing as of September 2023.

A popular option for the alpha component of portable alpha frameworks are **absolute return strategies like hedge funds** and **risk premia** strategies. These types of strategies aim to generate positive absolute returns in excess of a cash rate over many different market environments, making them a potentially complementary investment to combine with beta exposure that has cash financing costs.

Additionally, these types of strategies typically look globally for the best opportunities to deliver alpha and generally avoid exposure to market betas which might correlate with the target market index.

Why portable alpha?

Putting portfolio capital to its most productive

The key advantage of a portable alpha framework is that it allows investors to untether a portfolio's active risk budget from the beta allocation without disturbing it. Most importantly, it unlocks portfolio capital to be used to seek excess returns in areas of the global financial markets that have the highest potential to generate alpha.

For investors, building an optimized asset allocation for the market return, or "beta" component, of your portfolio is quite different than an optimized capital allocation for seeking excess returns, or "alpha" component, of your portfolio.

In equity portfolios, we find that market capitalization is a common driver of portfolio asset allocation weights, but we believe it is not an optimal starting point for active risk allocation (we review this in more detail on page 5).

In fixed income portfolios, we find that most managers have low active risk budgets and derive the majority of their active return from tilts into credit-sensitive securities — essentially delivering beta and a potentially high correlation to equities (we provide analysis on historical sources of returns on page 7).

In the following sections, we will look at two case studies that show how a portable alpha strategy can pursue meaningful and diversified excess returns in both the equity and fixed income portion of an asset allocation.

Case study: U.S. large cap equities

Fixing the alpha-beta mismatch in equities

The concentrated nature of market cap weighted indices is a difficult starting point for active risk budgeting, as it dramatically tilts the portfolio allocations away from the most diverse high breadth market segments.

Figure 3 breakdowns the MSCI All Country World Investable Market Index into conventional segments in which clients and managers typically organize their equity allocations.

Both tend to subdivide the equity market along geographic and capitalization categories such as U.S. large cap, international small cap, emerging markets, etc.

While following market-cap weighted indices are a well-prescribed starting point for your overall equity market beta allocation, it can have consequences on the effectiveness of your alpha-seeking efforts.

Most notably the amount of capital allocated to active managers in each category is typically bound with its market cap weighting in the broader index.

For example, U.S. large and mid cap exposure is typically over half the overall equity allocation, while international large cap is roughly a quarter. The other more diverse equity segments, and where risk-adjusted returns potential may be greater based on top quartile manager returns, combine to be just under 25% of the total equity exposure.

Manager selection can only go so far

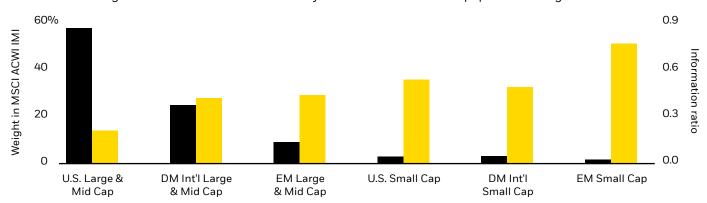
In our experience, finding persistently skilled, top-quartile performing managers can be a challenge. Exceptional manager selection is still bound by asset class limitations.

As shown in Figure 3, even if you were successful identifying a top-quartile manager in the U.S. large and mid cap segment, the overall portfolio impact might be muted. Why? Selecting a top quartile manager in the segment would have only resulted in an information ratio of 0.21 on about 58% of your total equity allocation. On the other hand, selecting a top quartile domestic market international small cap manager would have been far more rewarding with an information ratio of 0.49, but that would likely only be a small portion (~3%) of your total portfolio.

Manager selection matters less if the starting point of an asset allocation is not aligned with alpha opportunities. Portable alpha can help with this alpha-beta mismatch.

Figure 3: Market cap equity allocation is misaligned with alpha potential

MSCI ACWI IMI segment allocations and realized 10-yr Information Ratios of top quartile managers



● Typical % Equity Allocation (LHS) ● Realized Information Ratio (RHS)

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Source: MSCI, eVestment, BlackRock as of June 30, 2023. "Typical % Equity Allocation" represented by the market-capitalization weights of the MSCI ACWI IMI Index. "Segment Breadth" represented by the number of securities in the given segment of the MSCI ACWI IMI Index. Information ratio is a measure of an active manager's ability to generate risk-adjusted excess returns versus a representative market benchmark. It is calculated as Manager Skill (Information Co-Efficient) multiplied by the Square Root of Breadth (# of securities in segment). "Information Ratio Potential" assumes an Information Coefficient of 0.01 for each market segment of the MSCI ACWI IMI Index. "Realized Information Ratio" is the observed 10-year information ratio for the top quartile managers in the eVestment database for each market segment. Indices are unmanaged and one cannot invest directly in an index. **Past performance is not a reliable indicator of current or future results.**

Putting portable alpha to work in U.S. equities

What are the potential benefits of a portable alpha framework in equities? Broader opportunities to generate alpha in the largest parts of the portfolio where meaningful outperformance may be difficult.

Broader and more robust alpha opportunities

Let's assume we want to get more return from a U.S. Large Cap allocation. If we use a portable alpha approach to replicate S&P 500 beta exposure and make a 60% investment into an alternative strategy such as a global long/short market neutral strategy, the portfolio outcomes can be much more impactful than strong manager selection alone.

Global long/short market neutral strategies are typically high-breadth portfolios that are able to look across global equity markets for opportunities, not just a particular market segment like U.S. large-cap securities. Importantly, because they take both long and short positions they often seek to take advantage of security dispersion in markets, and do not add significantly more beta exposure. As a result, the returns from these types of strategies can be less dependent of market direction, potentially acting as a compliment to the index exposure in up markets and a buffer against volatility in down markets.

Figure 4 compares the alpha generated by the top quartile of U.S. Large Cap Core equity managers to a portable alpha framework that replicates the S&P 500 Index through market-linked instruments while holding a 60% allocation to an alternative strategy, represented by the HFRI Equity Market Neutral Index.

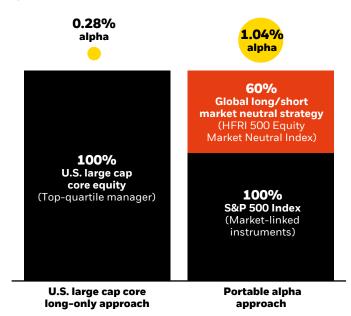
As you can see, the realized 10-year annualized alpha of a top quartile manager is 0.28%. In comparison, 60% of the HFRI Equity Market Neutral Index return of 2.72%, which represents just the average return of the managers in the category, results in an annual alpha of 1.63%. After adjusting for 60% of the 0.98% average annual financing costs of the beta exposure over the time period, as measured by the ICE BofA 3-Month Treasury Bill Index, the total alpha of the approach is 1.04% annually.

Summary

In a portable alpha framework, untethering alpha generation from the confines of market-cap weighted asset allocations allows investors to optimize return potential away from segments of the markets that are typically the largest, but hardest to generate meaningful excess returns.

Figure 4: Comparing results of a traditional long-only and portable alpha approach

Hypothetical 10-year annual alpha generation by approach



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Source: eVestment database as of June 30, 2023. "Traditional Long-Only Approach" alpha data based on the 10-year average annual alpha generated over the S&P 500 Index for the top-quartile (25th percentile rank) manager in the eVestment U.S. Large Cap Core category. The index return was 12.85% and the manager return was 13.13%. "Portable Alpha Approach" alpha calculated as 60% of the average annual return of the HFRI Equity Market Neutral Index minus 60% of the ICE BofA 3-Month Treasury Bill Index. The HFRI index return was 2.72% and the T-Bill return was 0.98%. The HFRI indices are global, equal-weighted indices comprised of the largest alternative funds published by Hedge Fund Research, Inc. Indices are unmanaged and one cannot invest directly in an index.

Case study: U.S. fixed income

Navigating a higher rate environment in fixed income

Rising yields for global fixed income securities have boosted their appeal, but a higher inflation environment, coupled with increased dispersion, and lower diversification benefits between bonds and equities provide new challenges for investors. Core fixed income, as a major portion of some investors' asset allocations, may no longer work to cushion against risk asset selloffs or the best use of portfolio capital.

Compared to traditional long-only approaches, portable alpha strategies can help investors generate higher levels of active risk in their portfolio, and these strategies can allow investors to generate a higher percentage of idiosyncratic active risk in their return stream. In this analysis, we look at Core and CorePlus U.S. fixed income managers to illustrate how portable alpha strategies can improve an investor's return potential and reduce overall portfolio correlation to the credit and equity markets.

Source of active return matters

In Figure 5, we regressed 10 years of Core Bond and CorePlus manager returns against a simple three factor model which included credit risk, equity risk and rate risk. We found that approximately 60% of Core manager and 68% of CorePlus manager excess returns were explained by these static exposures.

Of the three factors, the credit risk factor exposure was most explanatory. This implies that many traditional active Core and CorePlus managers have relied on an overweight to credit-sensitive securities to drive excess return.

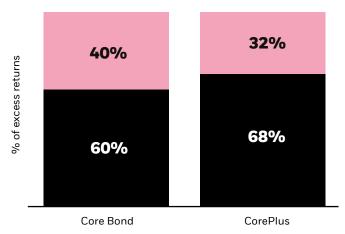
This has a very important, but often overlooked, effect on total portfolio diversification. The credit overweight may boost returns in up markets, but result in larger fixed income drawdowns in periods of equity sell-offs — the very time when investors need the diversification of core bonds the most.

Increased exposure to credit-sensitive securities in an uncertain rate and inflation environment presents new challenges for fixed-income investors. Unlike the previous period, characterized by declining borrowing costs and increasing asset prices, a higher rate and inflation environment is likely to keep security dispersion elevated.

This may create more opportunity for investors to generate alpha, making security-specific selection increasingly important.

Portable alpha can help seek the dual goals of enhanced return potential and meaningful portfolio diversification.

Figure 5: Bond manager excess returns largely explained by tilts to credit risk



Explained by 3-factor model
 Unexplained (alpha)

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Putting portable alpha to work in fixed income

What are the potential benefits of a portable alpha framework in core fixed income? The ability to increase active returns and at the same time seek idiosyncratic, equity-diversifying return streams.

Higher return potential with limited equity correlation

A typical fixed income portable alpha allocation can result in 60% allocation to the alpha source with the remaining capital allocated to efficiently replicate 100% of the fixed income beta.

Instead of chasing yields in fixed income markets, using alternative strategies as an alpha source in a portable alpha framework can help maintain the equity diversifying returns investors come to expect from bond allocations.

Alternatives, like multi-asset funds, are more focused on idiosyncratic return streams that are the result of relative value or long/short security selection opportunities. These can also provide sources of uncorrelated active return that are complementary to other active fixed income managers. Figure 6 compares the alpha generated by the top quartile Core and CorePlus bond managers to a portable alpha

framework that replicates the given benchmark while holding a 60% allocation to an alternative strategy, represented by the HFRI 500 Relative Value Multi-Strategy Index.

As you can see, the realized 10-year annualized alpha of a top quartile manager is 0.66% and 1.17%, respectively. In comparison, 60% of the HFRI Relative Value Multi-Strategy Index return of 3.79%, which represents just the average return of the managers in the category, results in an annual alpha of 2.28%.

After adjusting for 60% of the 0.98% average annual financing costs of the beta exposure over the time period, as measured by the ICE BofA 3-Month Treasury Bill Index, the total alpha of the approach is 1.69% annually.

Once again, the structural advantage of the portable alpha strategy can translate to better returns even against top-performing managers in the category.

Summary

During this time when investors are struggling with greater uncertainty in financial markets, portable alpha strategies represent a way for investors to increase the overall level of potential return in their core allocations. Equally important, portable alpha can help preserve the diversifying role of bonds by seeking more idiosyncratic sources of return that are less correlated with credit risk.

Figure 6: Comparing results of a traditional long-only and portable alpha approach Hypothetical annual alpha generation based on approach



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Approach" alpha calculated as 60% of the average annual return of the HFRI 500 Relative Value Multi-Strategy Index minus 60% of the ICE BofA 3-Month Treasury Bill Index. The HFRI 500 Indices are global, equal-weighted indices comprised of the largest alternative funds published by Hedge Fund Research, Inc. Indices are unmanaged and one cannot invest directly in an index.

Portfolio perspectives on implementation

1 How should investors think about portable alpha alongside other higher return seeking alternatives like private assets?

We have found that many institutional investors are seeking higher returns by increasingly looking to private markets. In fact, 43% of respondents in the BlackRock 2023 Global Private Markets Survey said they planned to "substantially increase" their portfolio allocations to private markets.³ These investors are looking at areas such as infrastructure and real estate debt, distressed debt and direct lending for enhanced returns.³

However, as investors increase their allocations to these non-traditional asset classes, it comes with some challenges in the form of maintaining adequate liquidity. These non-traditional asset classes are typically far less fungible than most liquid alternative strategies.

We believe that portable alpha provides an avenue for institutional investors to reach for higher returns within core allocation buckets while maintaining the ability to manage and monitor their liquidity profile. Portable alpha strategies can be built with alternative strategies that tend to have better intra-period liquidity and transparency than private assets. The result is investors can seek to increase overall portfolio return while maintaining adequate portfolio liquidity.

How should investors approach managing the "alpha" and "beta" component of a portable alpha framework?

Managing a portable alpha strategy is more complex than a long-only approach because you must monitor both sides of the investment. Although a portable alpha framework splits alpha generation and beta exposure into two distinct mandates, coordination in managing those return streams is key.

Investors can choose to split these roles across two different managers, but we find that a single manager for both components can be beneficial. From the investor's viewpoint, oversight is simplified because there are simply fewer parties involved, which results in fewer moving parts and more consolidated reporting. From the manager's perspective, they can more effectively manage the mandate because they have a holistic view of the entire strategy. This reduces the need for the investor to coordinate between two managers that are not directly communicating with each other. This is especially important if the strategy requires larger cash reserves, rebalancing, or client funding requests. In this case, a single manager can more easily anticipate these issues and quickly act to adjust both sides of the portfolio accordingly. Finally, by having multiple mandates with the same investment firm, the investor can potentially benefit from fee savings across the two allocations.

3 How has the use of portable alpha strategies in institutional portfolios evolved over time?

We have seen a growing interest in portable alpha strategies from many global institutions. However, investors may recall that portable alpha strategies had some measure of popularity before the 2008 global financial crisis as well. We believe that there are several missteps the industry took during that time. Namely, many alpha-seeking strategies were just delivering more market beta. And to worsen matters, many beta components of portable alpha strategies did not have adequate cash reserves to handle severe market drawdowns.

As a portable alpha manager for over 16 years, including throughout the entire global financial crisis, we know robust risk management is at the heart of a successful framework. We believe alpha-seeking managers must limit their beta exposure and have a history of delivering uncorrelated alpha. As systematic investors, we are keenly aware of what drives returns in our strategies. Additionally, managers could apply stress tests to determine the size of the cash reserve required to sufficiently cover both mark-to-market moves of the beta index and any potential changes to margin requirements on market-linked instruments. As a provider of both alpha and beta strategies, this consideration is embedded in our investment and risk management processes.

3 BlackRock. "2023 Global Private Markets Survey." Based on respondents from organizations including pensions, endowments and foundations, family offices, insurers, and investment consultants. The survey was conducted from October 2022 to January 2023.

Conclusion

A portable alpha investment framework, or one that effectively separates the alpha and beta components of an allocation, can help investors increase overall portfolio performance and maintain a diversified asset allocation.

In equity portfolios, we believe that portable alpha can help redirect active risk budgets towards areas where alpha may be more abundant — effectively unlocking capital in the largest part of investor's portfolios.

Compared to other illiquid, higher return-seeking alternatives like private equity, distressed debt, and real assets, a portable alpha framework does not significantly deteriorate the liquidity profile of a strategic asset allocation.

We believe portable alpha strategies have become the next logical step in building more capital efficient portfolios that can overcome the challenges of the low yield and low return world we now face.

BlackRock Systematic Investing

A leader in portable alpha strategies

16

Years experience in portable alpha solutions

\$4B

Portable alpha assets under management

\$6T

Largest global provider of index and ETF solutions gives expertise on levered beta

\$8B

Alternatives platform spans asset classes and provides choice in source of alpha

Source: BlackRock, as of June 2023.

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