

FOR PROFESSIONAL, INSTITUTIONAL, QUALIFIED, WHOLESALe INVESTORS AND PERMITTED, PROFESSIONAL AND QUALIFIED CLIENT USE ONLY – NOT FOR PUBLIC DISTRIBUTION (PLEASE READ IMPORTANT DISCLOSURES)

BlackRock

Portable alpha

Putting portfolio capital to work





Raffaele Savi
Head of Systematic Investing
& Co-CIO of Systematic Equity

- 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 return opportunities 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 use.²



Jeff Shen, PhD
Co-Chief Investment Officer
Systematic Equity

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 may not be an optimal starting point for active risk allocation.



Tom Parker, CFA
Chief Investment Officer
Systematic Fixed Income

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.



Shawn Steel, CFA
Investment Strategist
Systematic Fixed Income

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

The opinions expressed are those of the BlackRock Systematic Group as of September 2024 and subject to change with market conditions and should not be considered an investment recommendation or advice. ¹ Diversification does not guarantee a profit or eliminate the potential for loss. 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 S&P 500 Index or Bloomberg U.S. Aggregate Bond Index.

A portable alpha strategy is composed of:

- 1** A target index exposure, or “beta” component
- 2** A separate source of excess return opportunities, 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-seeking 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 4.0%. 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 2.4%.

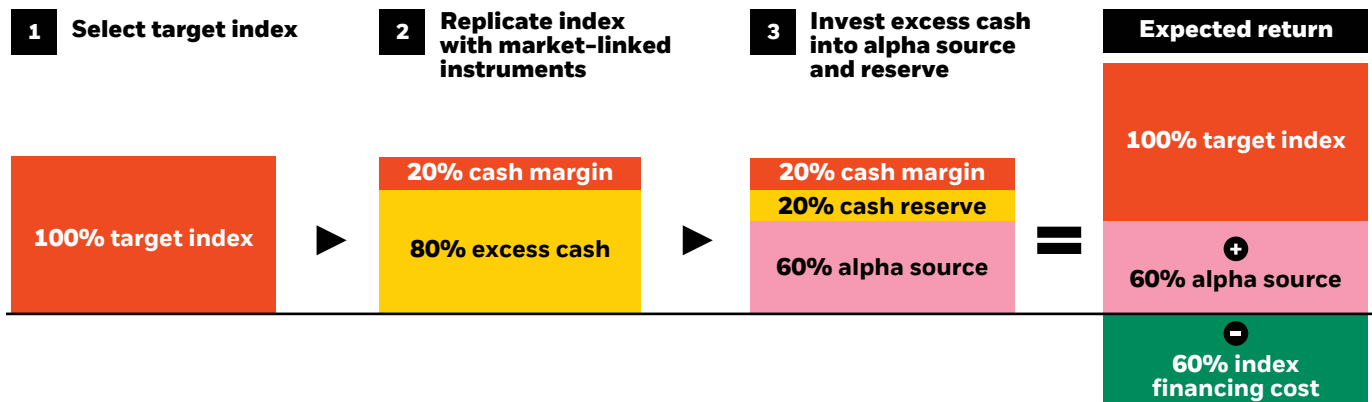
Next, the alpha-seeking manager is then looked upon to generate some level of positive return. As 60% of the overall portfolio is invested with the alpha-seeking manager, the investor would receive 60% of the alpha generated by the manager. If the alpha-seeking manager was targeting a return of the 10%, then the overall investment would have an expected return of 6% for the alpha source, minus 2.4% for the cash financing cost.

Overall, in this hypothetical example, this return occurred with the assumption that the targeted return alpha and index returns would equate to a return to the investor equal to the market index return plus 3.6%, with the excess return driven by the alpha-seeking portfolio's return over the financing cost.³

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. Secondly, market-linked instruments have the potential for margin calls after large market moves that may require adjustments in the whole portfolio.

Figure 1: Example implementation and expected return of a portable alpha strategy



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.

3 The hypothetical performance returns are provided for illustrative purposes only and demonstrated index performance and are not meant to be representative of actual performance or to project returns, does not exist and therefore, invariably show positive rates of return, does not reflect the deduction of any fees or expenses that might normally apply. The allocation decisions in the hypothetical were not made under actual market conditions and cannot account for the financial risk. One cannot invest directly in an index.

Past hypothetical performance results are not indicative of future returns.

Key considerations

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-seeking 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

This should not be deemed as an investment recommendation or advice. Based on the views and opinions of BlackRock Systematic Investing as of September 2024.

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, major indices, like the S&P 500 for example, are at multi-decade highs and market concentration has reach new peaks in 2024, with a few large tech stocks driving the market.⁴ For clients seeking to add a diversified source of alpha that is uncorrelated to underlying market beta, portable alpha strategies could be a natural fit that minimizes the impact of concentration risks. For investors with a tendency towards home country bias (a proclivity to favor or invest in domestic equities), portable alpha strategies may provide opportunities for increased breadth and depth in other markets. This may help clients diversify their portfolio and explore a wider range of opportunities for alpha.

Why portable alpha?

Putting portfolio capital to productive use

A 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. This approach can unlock portfolio capital that can be used in seeking excess returns in areas of the global financial markets that have more 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.

⁴ S&P Dow Jones Indices. "U.S. Equities Market Attributes." S&P Dow Jones Indices, January 3, 2025.

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 breaks down 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

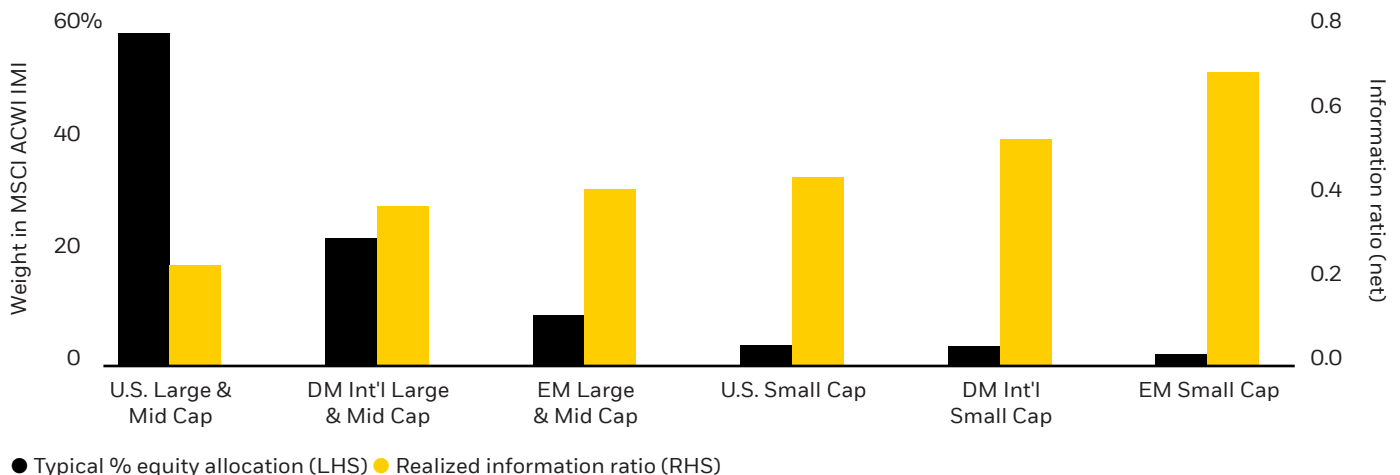
In our experience, finding persistently skilled, top-quartile performing managers can be a challenge. Exceptional manager selection is still bound by asset class limitations.

As shown in Figure 3, even if an investor were successful in 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 0.24 on about 59% of the total equity over the observed ten-year time period (2014-2024). 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 0.54, but that would likely only be a small portion (~3%) of the 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



Case studies are for illustrative purposes only; they are not meant as a guarantee of any future results or experience, and should not be interpreted as advice or a recommendation. Source: MSCI, eVestment, BlackRock as of September 30, 2024. "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" is the observed 10-year information ratio for the top-quartile managers in the eVestment database for each market segment. All performance is net of fees. 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.

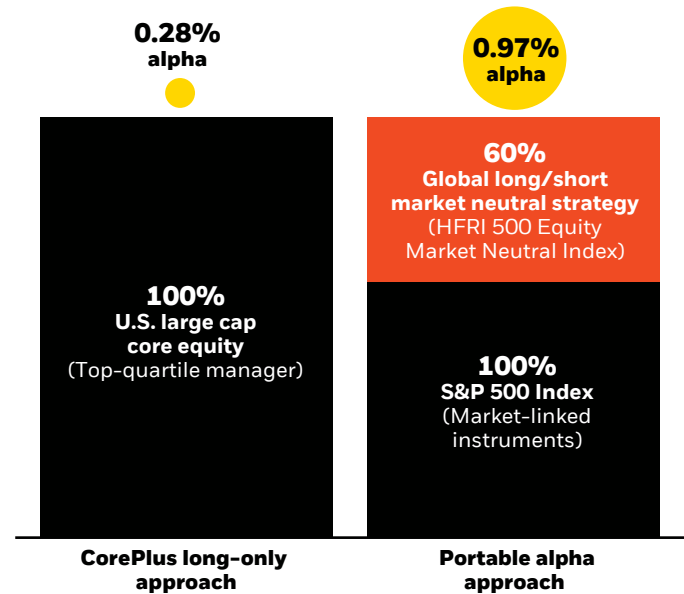
As you can see, the realized 10-year annualized alpha of a top quartile manager is 0.28% (net). In comparison, 60% of the HFRX Equity Market Neutral Index return of 3.28%, which represents just the average return of the managers in the category, results in an annual return of 1.97%. After adjusting for 60% of the 1.67% 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 0.97% (net) annually. All performance is net of fees returns.

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 more difficult 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 (net)



Case studies are for illustrative purposes only. This represents model driven allocations, depicted above, to the underlying top-quartile (25th percentile rank) managers in the eVestment Large Cap Core category as of September 30, 2024. The underlying performance is based on actual historical performance. "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 HFRX Equity Market Neutral Index Flagship Funds minus 60% of the ICE BofA 3-Month Treasury Bill Index. The HFRX index return was 3.28% and the T-Bill return was 1.67%. HFRX Index constituents are comprised of private hedge funds published by Hedge Fund Research, Inc. Managers. The average top quartile manager delivered 0.28% alpha (net) after all fees and expenses have been deducted. In a portable alpha approach, a manager delivered 0.97% alpha (net) after all fees and expenses have been deducted. All performance rates are net of fees. The aggregate performance of the model is hypothetical, and the model is formulated with benefit of hindsight, subject to limitations, and the hypothetical performance returns are not meant to represent actual performance or project returns, does not exist and therefore, invariably show positive rates of return, do not reflect the deduction of any fees or expenses that might normally apply. The allocation decisions in the hypothetical were not made under actual market conditions and cannot account for the financial risk. One cannot invest directly in an index. **Past hypothetical performance results are not indicative of future returns.**

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 help 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, using data from eVestment from September 2014–September 2024, 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 55% of Core manager and 63% of CorePlus manager excess returns were explained by these static exposures. All figures are net of fees.

Simple linear regression has been conducted to analyze the relationship between common factors and performance. 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.

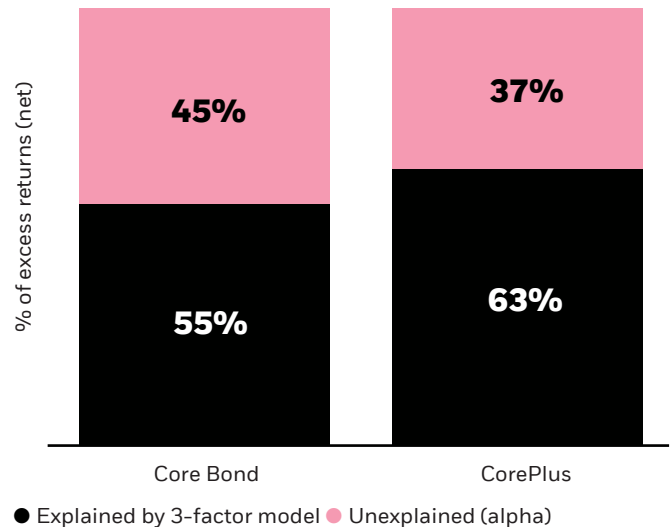
This has a very important, but often overlooked, effect on total portfolio diversification. The credit overweight may boost returns in up markets, but result in larger fixed income drawdowns in periods of equity sell-offs – the very time when investors need the diversification of core bonds.

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



Case studies are for illustrative purposes only. This represents the regressed returns of managers in the eVestment Core Bond and CorePlus Bond categories over a 10-year period. The underlying performance is based on actual historical performance. The aggregate performance is hypothetical and is formulated with benefit of hindsight. There are frequently sharp differences between a hypothetical performance record and the actual record subsequently achieved. Therefore, hypothetical performance records invariably show positive rates of return. Data is from eVestment database, from September 30, 2014–September 30, 2024. All performance rates are net of fees. The aggregate performance of the model is hypothetical, and the model is formulated with benefit of hindsight, subject to limitations, and the hypothetical performance returns are not meant to represent actual performance or project returns, does not exist and therefore, invariably show positive rates of return, do not reflect the deduction of any fees or expenses that might normally apply. The allocation decisions in the hypothetical were not made under actual market conditions and cannot account for the financial risk. One cannot invest directly in an index. **Past hypothetical performance results are not indicative of future returns.**

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-seeking 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-seeking source in a portable alpha framework can help maintain the equity diversifying returns investors come to expect from bond allocations.

Alternatives, like multi-strategy 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 managers⁵ 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 Core and CorePlus manager is 0.23% (net) and 0.58% (net), respectively. In comparison, 60% of the HFRI Relative Value Multi-Strategy Index return of 3.69% (net), which represents just the average return of the managers in the category, results in an annual return of 2.21% (net).

After adjusting for 60% of the 1.67% 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 1.21% (net) annually.

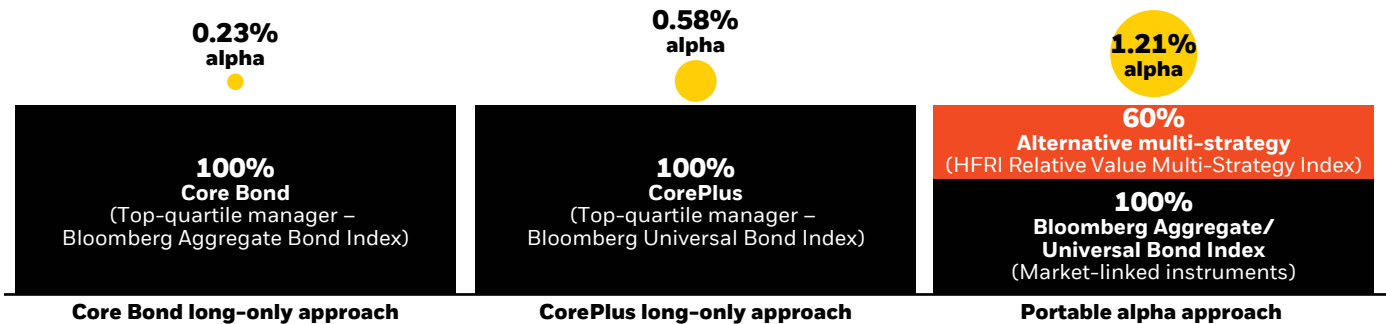
Once again, the structural advantage of the portable alpha strategy can unlock the potential for better returns in the category.

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 (net)



Case studies are for illustrative purposes only. This illustration represents a traditional long-only strategy and a portable alpha approach. Data is from eVestment database, as of September 30, 2024. "Core Bond Long-Only Approach" alpha data based on the 10-year average (September 2014–September 2024) annual alpha generated over the Bloomberg Barclays U.S. Aggregate Bond Index for the top quartile (25th percentile rank) manager in the eVestment U.S. Core Bond category. "Core Bond Long-Only Approach" alpha data based on the 10-year average (September 2014–September 2024) annual alpha generated over the Bloomberg Barclays Universal Bond Index for the top quartile (25th percentile rank) manager in the eVestment U.S. CorePlus Bond category. "Portable Alpha 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. The average top quartile Core manager delivered 0.23% alpha (net) after all fees and expenses have been deducted. The average top quartile CorePlus manager delivered 0.58% alpha (net) after all fees and expenses have been deducted. In a portable alpha approach, a manager delivered 1.21% alpha (net) after all fees and expenses have been deducted. All performance rates are net of fees returns. The above illustrations are based on a hypothetical analysis and are not indicative of the future performance. The hypothetical performance returns are provided for illustrative purposes only and are not meant to be representative of actual performance returns of, or to project or predict returns for, any account, portfolio, strategy or asset allocation. The hypothetical performance period is from eVestment database and HFRI 500 Indices as of September 30, 2024. The aggregate performance of the model is hypothetical, and the model is formulated with benefit of hindsight, subject to limitations, and the hypothetical performance returns are not meant to represent actual performance or project returns, does not exist and therefore, invariably show positive rates of return, do not reflect the deduction of any fees or expenses that might normally apply. The allocation decisions in the hypothetical were not made under actual market conditions and cannot account for the financial risk. One cannot invest directly in an index. **Past hypothetical performance results are not indicative of future returns.**

⁵ Defined as the top 25% of managers in the dataset who delivered excess returns on a 10-year annual average (September 30, 2014–September 30, 2024).

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.⁶ These investors are looking at areas such as infrastructure and real estate debt, distressed debt and direct lending for enhanced returns.

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.

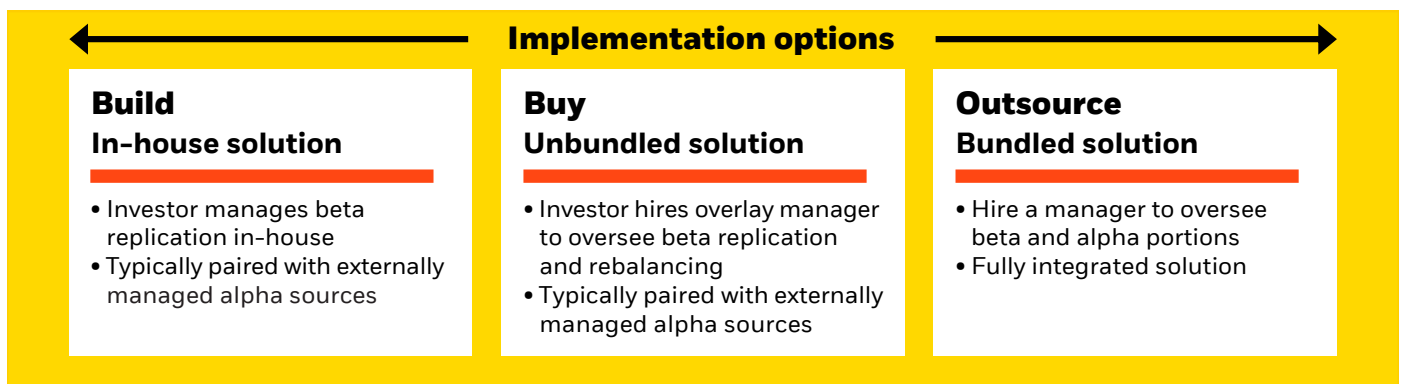
We believe that portable alpha provides an avenue for institutional investors seeking higher returns within core allocation buckets while maintaining the ability to manage and monitor their liquidity profile. Portable alpha strategies can be built with alternative strategies that tend to have better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

2 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 and beta exposure into two distinct mandates, investors can consider three different implementation options to coordinate and manage those return streams. As outlined in the figure below, implementation options range from in-house solutions and unbundled solutions that can be paired with external alpha sources to fully integrated bundled solutions where a manager oversees the alpha and beta portions.

Although investors can choose to split these roles across two different managers, we believe 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.

Figure 7: Implementation options



Source: BlackRock Systematic as of September 2024. For illustrative purposes only.

⁶ 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.

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 17 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.

Conclusion

A portable alpha investment framework, or one that effectively separates the alpha and beta components of an allocation, can help investors seeking to 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 a significant 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 traditional asset allocation in today's evolving world.

BlackRock: This document is marketing material: Before investing please read the Prospectus and the PRIIPs KID available on www.blackrock.com/it, which contain a summary of investors' rights.

Capital at risk. The value of investments and the income from them can fall as well as rise and are not guaranteed. Investors may not get back the amount originally invested. Past performance is not a reliable indicator of current or future results and should not be the sole factor of consideration when selecting a product or strategy. Index returns are shown for illustrative purposes only. It is not possible to invest directly in an index. Forecasts are based on estimates and assumptions. There is no guarantee that they will be achieved.

Changes in the rates of exchange between currencies may cause the value of investments to diminish or increase. Fluctuation may be particularly marked in the case of a higher volatility fund and the value of an investment may fall suddenly and substantially. Levels and basis of taxation may change from time to time.

This material is provided for educational purposes only and is not intended to be relied upon as a forecast, research or investment advice, and is not a recommendation, offer or solicitation to buy or sell any securities or to adopt any investment strategy. The opinions expressed are subject to change. References to specific securities, asset classes and financial markets are for illustrative purposes only and are not intended to be and should not be interpreted as recommendations. Reliance upon information in this material is at the sole risk and discretion of the reader. The material was prepared without regard to specific objectives, financial situation or needs of any investor.

This material may contain "forward-looking" information that is not purely historical in nature. Such information may include, among other things, projections, forecasts, and estimates of yields or returns. No representation is made that any performance presented will be achieved by any BlackRock Funds, or that every assumption made in achieving, calculating or presenting either the forward-looking information or any historical performance information herein has been considered or stated in preparing this material. Any changes to assumptions that may have been made in preparing this material could have a material impact on the investment returns that are presented herein. Past performance is not a reliable indicator of current or future results and should not be the sole factor of consideration when selecting a product or strategy.

The information and opinions contained in this material are derived from proprietary and nonproprietary sources deemed by BlackRock to be reliable, are not necessarily all-inclusive and are not guaranteed as to accuracy.

In the U.S., this material is for Institutional use only – not for public distribution.

In Canada, this material is intended for permitted clients only, is for educational purposes only, does not constitute investment advice and should not be construed as a solicitation or offering of units of any fund or other security in any jurisdiction.

This material is for distribution to Professional Clients (as defined by the Financial Conduct Authority or MiFID Rules) only and should not be relied upon by any other persons.

In the UK and Non-European Economic Area (EEA) countries: This is issued by BlackRock Investment Management (UK) Limited, authorised and regulated by the Financial Conduct Authority. Registered office: 12 Throgmorton Avenue, London, EC2N 2DL. Tel: + 44 (0)20 7743 3000. Registered in England and Wales No. 02020394. For your protection telephone calls are usually recorded. Please refer to the Financial Conduct Authority website for a list of authorised activities conducted by BlackRock.

In the European Economic Area (EEA): This is issued by BlackRock (Netherlands) B.V. is authorised and regulated by the Netherlands Authority for the Financial Markets. Registered office Amstelplein 1, 1096 HA, Amsterdam, Tel: 020-549 5200, Tel: 31-20-549-5200. Trade Register No. 17068311 For your protection telephone calls are usually recorded.

For qualified investors in Switzerland: This document is marketing material. This document shall be exclusively made available to, and directed at, qualified investors as defined in the Swiss Collective Investment Schemes Act of June 23, 2006, as amended.

In DIFC, the information contained in this document is intended strictly for Professional Clients as defined under the Dubai Financial Services Authority ("DFSA") Conduct of Business Rules.

The information contained in this document, does not constitute and should not be construed as an offer of, invitation or proposal to make an offer for, recommendation to apply for or an opinion or guidance on a financial product, service and/or strategy. Whilst great care has been taken to ensure that the information contained in this document is accurate, no responsibility can be accepted for any errors, mistakes or omissions or for any action taken in reliance thereon. You may only reproduce, circulate and use this document (or any part of it) with the consent of BlackRock.

The information contained in this document is for information purposes only. It is not intended for and should not be distributed to, or relied upon by, members of the public.

The information contained in this document, may contain statements that are not purely historical in nature but are "forward-looking statements." These include, amongst other things, projections, forecasts or estimates of income. These forward-looking statements are based upon certain assumptions, some of which are described in other relevant documents or materials. If you do not understand the contents of this document, you should consult an authorised financial adviser.

BlackRock Advisors (UK) Limited-Dubai Branch is a DIFC Foreign Recognised Company registered with the DIFC Registrar of Companies (DIFC Registered Number 546), with its office at Unit L15-01A, ICD Brookfield Place, Dubai International Financial Centre, PO Box 506661, Dubai, UAE, and is regulated by the DFSA to engage in the regulated activities of 'Advising on Financial Products' and 'Arranging Deals in Investments' in or from the DIFC, both of which are limited to units in a collective investment fund (DFSA Reference Number F000738).

In South Africa, please be advised that BlackRock Investment Management (UK) Limited is an authorised Financial Services provider with the South African Financial Services Conduct Authority, FSP No. 43288.

In Kuwait: The information contained in this document is intended strictly for sophisticated institutions that are 'Professional Clients' as defined under the Kuwait Capital Markets Law and its Executive Bylaws. The information contained in this document, does not constitute and should not be construed as an offer of, invitation or proposal to make an offer for, recommendation to apply for or an opinion or guidance on a financial product, service and/or strategy. Whilst great care has been taken to ensure that the information contained in this document is accurate, no responsibility can be accepted for any errors, mistakes or omissions or for any action taken in reliance thereon. You may only reproduce, circulate and use this document (or any part of it) with the consent of BlackRock. The information contained in this document is for information purposes only. It is not intended for and should not be distributed to, or relied upon by, members of the public. The information contained in this document, may contain statements that are not purely historical in nature but are "forward-looking statements." These include, amongst other things, projections, forecasts or estimates of income. These forward-looking statements are based upon certain assumptions, some of which are described in other relevant documents or materials. If you do not understand the contents of this document, you should consult an authorised financial adviser.

In the Kingdom of Saudi Arabia, the information contained in this document is intended strictly for Institutional and Qualified Clients.

The information contained in this document, does not constitute and should not be construed as an offer of, invitation or proposal to make an offer for, recommendation to apply for or an opinion or guidance on a financial product, service and/or strategy. Whilst great care has been taken to ensure that the information contained in this document is accurate, no responsibility can be accepted for any errors, mistakes or omissions or for any action taken in reliance thereon. You may only reproduce, circulate and use this document (or any part of it) with the consent of BlackRock.

The information contained in this document is for information purposes only. It is not intended for and should not be distributed to, or relied upon by, members of the public.

The information contained in this document, may contain statements that are not purely historical in nature but are "forward-looking statements." These include, amongst other things, projections, forecasts or estimates of income. These forward-looking statements are based upon certain assumptions, some of which are described in other relevant documents or materials. If you do not understand the contents of this document, you should consult an authorised financial adviser.

For Italy: Information on investor rights and how to raise complaints please go to <https://www.blackrock.com/corporate/compliance/investor-right> available in Italian.

In the United Arab Emirates, the information contained in this document is intended strictly Professional Investors.

The information contained in this document, does not constitute and should not be construed as an offer of, invitation or proposal to make an offer for, recommendation to apply for or an opinion or guidance on a financial product, service and/or strategy. Whilst great care has been taken to ensure that the information contained in this document is accurate, no responsibility can be accepted for any errors, mistakes or omissions or for any action taken in reliance thereon. You may only reproduce, circulate and use this document (or any part of it) with the consent of BlackRock.

The information contained in this document is for information purposes only. It is not intended for and should not be distributed to, or relied upon by, members of the public.

The information contained in this document, may contain statements that are not purely historical in nature but are "forward-looking statements." These include, amongst other things, projections, forecasts or estimates of income. These forward-looking statements are based upon certain assumptions, some of which are described in other relevant documents or materials. If you do not understand the contents of this document, you should consult an authorised financial adviser.

For investors in Israel: BlackRock Investment Management (UK) Limited is not licensed under Israel's Regulation of Investment Advice, Investment Marketing and Portfolio Management Law, 5755-1995 (the "Advice Law"), nor does it carry insurance thereunder.

For investors in Central America: These securities have not been registered before the Securities Superintendence of the Republic of Panama, nor did the offer, sale or their trading procedures. The registration exemption has made according to numeral 3 of Article 1.29 of the Consolidated Text containing of the Decree-Law No. 1 of July 8, 1999 (institutional investors). Consequently, the tax treatment set forth in Articles 334 to 336 of the Unified Text containing Decree-Law No. 1 of July 8, 1999, does not apply to them. These securities are not under the supervision of the Securities Superintendence of the Republic of Panama. The information contained herein does not describe any product that is supervised or regulated by the National Banking and Insurance Commission (CNBS) in Honduras. Therefore any investment described herein is done at the investor's own risk. This is an individual and private offer which is made in Costa Rica upon reliance on an exemption from registration before the General Superintendence of Securities ("SUGEVAL"), pursuant to articles 7 and 8 of the Regulations on the Public Offering of Securities ("Reglamento sobre Oferta Pública de Valores"). This information is confidential, and is not to be reproduced or distributed to third parties as this is NOT a public offering of securities in Costa Rica. The product being offered is not intended for the Costa Rican public or market and neither is registered or will be registered before the SUGEVAL, nor can be traded in the secondary market. If any recipient of this documentation receives this document in El Salvador, such recipient acknowledges that the same has been delivered upon their request and instructions, and on a private placement basis. In Guatemala, this communication and any accompanying information (the "Materials") are intended solely for informational purposes and do not constitute (and should not be interpreted to constitute) the offering, selling, or conducting of business with respect to such securities, products or services in the jurisdiction of the addressee (this "Jurisdiction"), or the conducting of any brokerage, banking or other similarly regulated activities ("Financial Activities") in the Jurisdiction. Neither BlackRock, nor the securities, products and services described herein, are registered (or intended to be registered) in the Jurisdiction. Furthermore, neither BlackRock, nor the securities, products, services or activities described herein, are regulated or supervised by any governmental or similar authority in the Jurisdiction. The Materials are private, confidential and are sent by BlackRock only for the exclusive use of the addressee. The Materials must not be publicly distributed and any use of the Materials by anyone other than the addressee is not authorized. The addressee is required to comply with all applicable laws in the Jurisdiction, including, without limitation, tax laws and exchange control regulations, if any.

In Latin America, for Institutional Investors and Financial Intermediaries Only (not for public distribution). This material is for educational purposes only and does not constitute an offer or solicitation to sell or a solicitation of an offer to buy any shares of any fund (nor shall any such shares be offered or sold to any person) in any jurisdiction in which an offer, solicitation, purchase or sale would be unlawful under the securities law of that jurisdiction. It is possible that some or all of the funds mentioned in this document have not been registered with the securities regulator of Argentina, Chile, Colombia, Mexico, Panama, Peru, Uruguay or any other securities regulator in any Latin American country and thus might not be publicly offered within any such country. The securities regulators of such countries have not confirmed the accuracy of any information contained herein. No information discussed herein can be provided to the general public in Latin America.

In Singapore, this document is provided by BlackRock (Singapore) Limited (company registration number: 200010143N) for use only with institutional and accredited investors as defined in Section 4A of the Securities and Futures Act, Chapter 289 of Singapore. This advertisement or publication has not been reviewed by the Monetary Authority of Singapore.

In Hong Kong, this material is issued by BlackRock Asset Management North Asia Limited and has not been reviewed by the Securities and Futures Commission of Hong Kong. This material is for distribution to "Professional Investors" (as defined in the Securities and Futures Ordinance (Cap.571 of the laws of Hong Kong) and any rules made under that ordinance.) and should not be relied upon by any other persons or redistributed to retail clients in Hong Kong.

In South Korea, this information is issued by BlackRock Investment (Korea) Limited. This material is for distribution to the Qualified Professional Investors (as defined in the Financial Investment Services and Capital Market Act and its sub-regulations) and for information or educational purposes only, and does not constitute investment advice or an offer or solicitation to purchase or sells in any securities or any investment strategies.

In Taiwan, independently operated by BlackRock Investment Management (Taiwan) Limited. Address: 28F., No. 100, Songren Rd., Xinyi Dist., Taipei City 110, Taiwan. Tel: (02)23261600.

In Australia & New Zealand, issued by BlackRock Investment Management (Australia) Limited ABN 13 006 165 975, AFSL 230 523 (BIMAL) for the exclusive use of the recipient, who warrants by receipt of this material that they are a wholesale client as defined under the Australian Corporations Act 2001 (Cth) and the New Zealand Financial Advisers Act 2008 respectively.

BlackRock Investment Management (Australia) Limited ("BIMAL") is not licensed by a New Zealand regulator to provide 'Financial Advice Service' or 'Keeping, investing, administering, or managing money, securities, or investment portfolios on behalf of other persons'. BIMAL's registration on the New Zealand register of financial service providers does not mean that BIMAL is subject to active regulation or oversight by a New Zealand regulator.

This material provides general information only and does not take into account your individual objectives, financial situation, needs or circumstances. Before making any investment decision, you should therefore assess whether the material is appropriate for you and obtain financial advice tailored to you having regard to your individual objectives, financial situation, needs and circumstances. This material is not a financial product recommendation or an offer or solicitation with respect to the purchase or sale of any financial product in any jurisdiction.

This material is not intended for distribution to, or use by, any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation. BIMAL is a part of the global BlackRock Group which comprises of financial product issuers and investment managers around the world. BIMAL is the issuer of financial products and acts as an investment manager in Australia. BIMAL does not offer financial products to persons in New Zealand who are retail investors (as that term is defined in the Financial Markets Conduct Act 2013 (FMCA)). This material does not constitute or relate to such an offer. To the extent that this material does constitute or relate to such an offer of financial products, the offer is only made to, and capable of acceptance by, persons in New Zealand who are wholesale investors (as that term is defined in the FMCA).

BIMAL, its officers, employees and agents believe that the information in this material and the sources on which it is based (which may be sourced from third parties) are correct as at the date of publication. While every care has been taken in the preparation of this material, no warranty of accuracy or reliability is given and no responsibility for the information is accepted by BIMAL, its officers, employees or agents. Except where contrary to law, BIMAL excludes all liability for this information.

This material is provided to the recipient on a strictly confidential basis and is intended for informational or educational purposes only. Nothing in this document, directly or indirectly, represents to you that BlackRock will provide, or is providing BlackRock products or services to the recipient, or is making available, inviting, or offering for subscription or purchase, or invitation to subscribe for or purchase, or sale, of any BlackRock fund, or interests therein. This material neither constitutes an offer to enter into an investment agreement with the recipient of this document, nor is it an invitation to respond to it by making an offer to enter into an investment agreement.

The distribution of the information contained herein may be restricted by law and any person who accesses it is required to comply with any such restrictions. By reading this information you confirm that you are aware of the laws in your own jurisdiction regarding the provision and sale of funds and related financial services or products, and you warrant and represent that you will not pass on or utilize the information contained herein in a manner that could constitute a breach of such laws by BlackRock, its affiliates or any other person.

The information provided here is neither tax nor legal advice and should not be relied on as such. Investment involves risk including possible loss of principal.

FOR PROFESSIONAL, INSTITUTIONAL, QUALIFIED, WHOLESALE INVESTORS AND PERMITTED, PROFESSIONAL AND QUALIFIED CLIENT USE ONLY. THIS MATERIAL IS NOT TO BE REPRODUCED OR DISTRIBUTED TO PERSONS OTHER THAN THE RECIPIENT.

© 2025 BlackRock, Inc. or its affiliates. All Rights Reserved. **BLACKROCK** is a trademark of BlackRock, Inc. or its affiliates. All other trademarks are those of their respective owners.

Lit No. PORT-ALPHA-1224 242187T-1224