



## All Alphas Are Not Created Equal (second in a three-part series)

Today's environment has prompted institutional investors to consider new approaches to portfolio implementation. Our approach, called *Active Alpha Investing*, is based on the premise of isolating sources of risk into three components, interest rate risk, market risk, and active risk, to maximize a plan's total return while optimizing its risk.

Traditionally, active risk has been a by-product of manager selection within specific asset classes. But, in *Active Alpha Investing*, derivative instruments can be used to separately manage sources of risk. As discussed in our previous article, separating these risks allows plans to size and monitor risks more effectively – facilitating a more efficient allocation of risks. It also allows plans to consciously take and pay only for risks they want to be taking.

And, because active risk is uncorrelated with market risk, we believe, this approach should allow plans to achieve a significant increase in active risk. This only marginally increases total portfolio volatility, but can have a meaningful impact on total expected returns.

The *Active Alpha Investing* prescription is clear: to create more alpha, take more active risk. But the question is: how and where? You can look for alpha in many familiar places as well as some untapped new ones. But remember, alpha sources have different key characteristics – so all alphas are not created equal. The process of identifying the best sources of alpha begins with a clear understanding of active risk and return.

Active managers tend to confine themselves to areas of the market, or benchmarks, where they possess differential ability. While we expect managers to outperform their benchmarks, true outperformance comes from uncorrelated return. Permanently holding cash or leveraging the benchmark does not generate active return, but, rather, deviates from the benchmark and subsequently alters the plan's market risk. Because benchmark exposure is almost free, in our view, you should pay active managers only for uncorrelated active risk.

### Sources of Alpha – Some Solutions

Investors are searching for alpha in a variety of places today – including market-neutral hedge funds, currency and other overlay strategies, real estate, private equity, uncorrelated asset classes such as commodities, and “porting” alpha from tradi-

tional managers to other asset classes. This concept of portable alpha is a cornerstone of *Active Alpha Investing*. One of its key benefits is that the asset classes where you search for alpha need not be the same as those in your strategic asset allocation. For example, liquid derivatives markets create opportunities to transport alpha from one benchmark to another.

So, you could embrace an all-bond strategic asset allocation and hire only S&P 500 and Russell 2000 managers. By holding short equity futures positions to hedge your manager's index exposure and adding long bond futures to track your all-bond benchmark, you can transport the active equity manager alphas to your desired all-bond policy benchmark. This approach can be applied to port any active risk benchmarked to cash or an index with liquid derivatives.

### Implementing Active Alpha Investing

Let's see how this might work in practice.

#### Step 1: Identify Balance of Market and Active Risk

The strategic policy benchmark decision is straightforward: get as much active risk as you can. You will be constrained by your ability to find high-quality active risk long before you reach a sub-optimal overallocation. Take the remaining portion of the total portfolio target risk level in market exposure.

Separating risk choices is a straightforward process when frequent historical returns are available for a product and for the market. Historical data can be used to estimate an investment's beta. Once beta is identified, the investment's residual return is simply the total return minus the beta, multiplied by the market return. The average value of the residual return is the historical alpha of the product. The volatility of the residual returns is its active risk.

Generally, for products such as hedge funds, private equity and real estate, frequent historical returns are not available, making the decomposition into market and active risk more difficult. In these cases, analysis of the types of positions held, the long-term correlations with market cycles, and other more fundamental considerations, may help create reasonable assumptions about beta and total volatility. For example, in the hedge fund arena, most equity long/short managers tend to have positive market exposures, where market-neutral, tactical

## Evaluating Sources of Alpha

### The Five Cs: Confidence, Correlation, Cost, Capacity and Capital

With the realization that alpha can be sourced separately from the underlying market exposures, the characteristics that differentiate alpha sources can be more clearly identified. We refer to these characteristics as the Five Cs.

#### Confidence

Represents your expectation of the manager's alpha per unit of active risk, or information ratio (IR). As the information ratio increases, an investment strategy becomes more attractive. Expected information ratios net of transaction costs and management fees are, on average, close to zero for the investment management industry. Just as in any competitive activity, outperformance requires skill. IR measures the degree of portfolio manager skill. As a whole, net IRs of 0.2 or better are excellent, and net IRs of 0.5 or higher are uncommon. Of course, because performance can be random, it is difficult to separate luck from skill and to develop confidence in a manager's ability to outperform. Although past performance is a poor predictor of future results, most investors tend to focus on recent performance. How can you avoid that trap? First, you need to develop a philosophy about manager selection and a process for implementing that approach. Certain characteristics of managers can be revealing. Consider the following questions:

- Does the manager use a well-defined process, with breadth and depth, to source alpha?
- Does the manager utilize data not already fully digested by the market?
- Does the manager carefully quantify risk – monitoring and eliminating unintended sources?
- Is the manager restricted by limitations in security selection, portfolio constraints, or ability to use derivatives or take short positions?
- Does the manager minimize transactions costs? Is she aware of the market and portfolio impact of her trades?
- Is the firm's compensation and ownership structure conducive to motivating and retaining investment talent?
- Does the firm have the financial strength to weather periods of poor performance?

Beyond these considerations, some asset classes and management styles have historically provided richer sources of alpha than others. This history may reflect different degrees of efficiency in the market and, therefore, may persist in the future.

#### Correlation

Measures a more subtle consideration. Investment strategies with lower correlation to your portfolio will most likely improve total return per unit of volatility. Of course, this means correlation with your strategic asset allocation and with all of the other active risks in your portfolio. For example, you could diversify your roster among value and growth managers, as well as fundamental and quantitative managers. Adding active strategies in different asset classes – like currencies or commodities – can also improve portfolio return per unit of risk.

#### Cost

Only net returns ultimately accrue to investors. The total cost of passive exposure is close to zero: management fees for holding a long-term S&P 500 index position total approximately 5 bps per year, which comprises only 1-2% of the equity risk premium. In contrast, fees on some active investment strategies consume 50% or more of the realized gross excess return. Clearly, active manager fees should be proportional to expected gross alpha. Proven managers with long track records and limited capacity can be expected to charge more. Given the uncertainty in outperformance, it can make sense to employ incentive fee structures. Incentive fees align interests and make sense when your expected information ratio is likely to be less than the manager's assessment. These fees also create an incentive for the manager to take more risk, which may be useful in searching for active risk. Products such as overlay strategies, hedge funds and private equity already employ incentive fee structures.

#### Capacity

Represents the investment strategy's long-term sustainability in the face of significant cash inflows. Strategies in smaller and more illiquid asset classes, such as high yield, convertible bonds, emerging market debt, real estate, and merger arbitrage, may possess lower capacity. New assets may push these markets toward equilibrium, lowering the potential for future active returns. However, strategies in deep, highly liquid markets will be relatively unaffected by new capital entering the marketplace. Global equity products, currencies and futures-based strategies like GTAA are good examples of high capacity strategies.

#### Capital

The fifth, and arguably most important "C" in today's investment world. It quantifies the capital required to create a given dollar of expected alpha. For example, we expect a skilled bond manager to generate about \$0.50 of alpha for every \$100 of assets, while a skilled equity manager might generate \$2 or \$3 from the same asset level. Overlay strategies and higher volatility hedge funds require the least capital, and can often generate as much as \$25 of expected alpha for every \$100. To generate a desired excess return, it is capital – not risk appetite – that constrains you. Thus, perhaps ironically, in sourcing alpha, everything else being equal, higher risk strategies are more attractive.

Of the Five Cs, we believe that Confidence is the hardest to forecast. How do you choose managers and investment strategies that will have the highest future alphas? Creating alpha is essentially a forecasting endeavor. The best managers have a strongly defined and defensible view on their sources of alpha, their sustainability, why they have a differential advantage and a strong process and team to consistently deliver them. Once you've identified sources of alpha, getting it into your portfolio requires a disciplined process, removing the artificial constraint that active strategies conform to your strategic asset allocation mix, and allocating active risk to various alpha sources based on Confidence, Correlation, Cost, Capacity and Capital.

“...the best alpha sources are high-risk, low-fee products with uncorrelated returns, where you have confidence in the manager’s ability to generate alpha without capacity concerns.”

trading, and event driven strategies typically do not. Given the assumptions about beta and product volatility, you can determine both the active risk and the assumed total volatility. Though not precise, this exercise is important because it highlights sources of uncertainty that can significantly impact overall portfolio market exposure.

### Step 2: Determine Alpha for Each Source of Active Risk

Once the balance between active and market risk for each investment is determined, you should then estimate the alpha for each source of active risk. In some cases, historical data can help assess future active performance. For example, we can calculate the historical active returns of US large cap equity managers and compare them to the historical active returns of US fixed income managers, find the information ratio, and use this data to inform the allocation of active risk between the two strategies.

Because historical average returns depend on the choice of time period, historical data should not be the only influence on the active risk allocation. Remember, past performance is not indicative of future results. And, over-reliance on historical performance could distract you from the real issue: understanding the underlying sources of active performance.

Reliance on historical data is more problematic when you add new strategies, such as private equity, hedge funds and overlay strategies, because information is often unavailable, of poor quality, or, in some cases, there is a relatively small number of managers from which to choose. Despite these data issues, these non-traditional sources of active risk can provide the best and least constrained opportunities to add alpha. If implemented well, we believe *Active Alpha Investing* can meaningfully increase the active return in your portfolio without materially increasing its overall volatility.

### Step 3: Allocate Risk Across Active Strategies

The best approach to allocating active risk is to focus on understanding the real drivers of active returns. Instead of undertaking the impossible task of finding precise estimates of active returns, we recommend setting a target information ratio and assessing your confidence in that strategy’s ability to achieve this target.

Suppose that you have three sources of active risk: US large cap equity, equity market-neutral hedge funds and active overlay strategies, and you set .25 as a target information ratio for each. If you are equally confident that each would achieve the .25 target, you would allocate an equal percentage of active risk to each strategy. On the other hand, if you are more confident in

one strategy, you should increase the allocation of active risk to that strategy. By focusing on relative confidence levels, it may be easier for you to efficiently allocate active risk.

### Step 4: Identify and Relax Constraints on Active Risk

So far, we’ve assumed that investors are unconstrained in their ability to implement an efficient active risk budget. In practice, however, this has not been the case. Most plans have a variety of constraints that limit their ability to sufficiently generate and efficiently deploy active risk.

Portable alpha strategies can provide greater flexibility, but the ultimate constraint on sourcing alpha is usually the scarcity of capital. Even a relatively large alternatives program, such as allocating 10% to hedge funds, only adds 50 bps of additional active risk to the plan, less than you might expect. A diversified portfolio of hedge funds provides around 5% annualized volatility.

The scarcity of capital, combined with a plan’s desire to increase alpha, means that products with higher levels of risk per unit of capital are desirable. Uncompensated risk, such as the interest rate exposure in unhedged liabilities, is never a good thing, but we believe that intentional active risk, designed to produce alpha, is valuable. In this context, overlay strategies such as currency and Global Tactical Asset Allocation (GTAA), which use derivative instruments to add pure alpha in relatively concentrated, risk-controlled programs, are a particularly attractive source of active risk. Other attractive sources include concentrated equity strategies and higher volatility fixed income strategies.

On the other end of the risk spectrum, many plans are using large amounts of capital in passive index strategies. While cost effective, these allocations use capital that could otherwise be used to create alpha. The good news is that the plan could easily deploy those funds toward alpha generation – by using enhanced index or low-risk structured products at a minimum. Because of the low tracking error targets, these products have less binding long-only constraints than traditional products. Derivatives can generally be used to replace the market exposures of index allocations, freeing up the entire capital for allocation to hedge funds, overlays or other more concentrated sources of alpha.

Based on the Five Cs, it is our view that the best alpha sources are high-risk, low-fee (or performance fee) products with uncorrelated returns, where you have confidence in the manager’s ability to generate alpha without capacity concerns. Our advice is that if you find such a product, invest in it, and don’t tell anyone else about it.

The entire Active Alpha Investing series is available at [activealpha.gs.com](http://activealpha.gs.com).

Article 1: **A New Paradigm for Today’s Challenges** – Learn the value of taking more active risk

Article 2: **All Alphas are Not Created Equal** – Understand how to find and evaluate alpha sources

Article 3: **Putting it All Together** – Learn how to implement solutions in your organization

