

WHITE PAPER NO. 34



PORTABLE ALPHA:  
WHAT'S ALL THE BUZZ ABOUT?



GREYCOURT

## White Paper No. 34 – *Portable Alpha: What’s All the Buzz About?*

Those of us who are regular readers of the investment journals – and who, no doubt, need to get a life – have been hearing about portable alpha strategies for several years.<sup>1</sup> But it has only been in the last twelve months that these strategies have moved out of the realm of academia and into more mainstream discussion.<sup>2</sup> So what exactly is portable alpha all about, and what relevance does it have for the management of real investment portfolios?

### Sources of Outperformance

To answer this question, it is necessary to review briefly the chief – and, in most cases, the only – sources of investment outperformance: market return and manager alpha.<sup>3</sup> Outperformance in this context refers to investment return beyond that obtainable on “risk-free” securities – United States Treasury bills for a US investor. T-bills generally return something very much like the consensus estimate of short-term inflation. There is a bit of a lag in both directions, but over time tax-exempt buyers of T-bills who have no spending needs will roughly maintain the real purchasing power of their assets but will not grow those assets net of inflation. For taxable investors it’s another story altogether: net of taxes, taxable investors in T-bills will get a little poorer every year. Of course, it’s a rare taxable or tax-exempt investor that has no spending needs. In practical terms, therefore, virtually all investors in risk-free assets will get poorer over time – hardly a “risk-free” proposition!

Since few investors are satisfied watching their wealth slowly disappear, most of us are looking for investment outperformance: the ability to earn an increment or premium over the risk-free return.

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<sup>1</sup> Most recently, for example, see Dorsey D. Farr, “The Long and Short of Tax Efficiency,” *The Journal of Wealth Management* (Spring 2004), p. 74.

<sup>2</sup> Goldman Sachs has been in the forefront of the attempt to introduce portable alpha strategies to investors. See, especially, the series of three Open Letters to Investors entitled “Active Alpha Investing,” by Bob Litterman, the head of Goldman’s quantitative group. These letters are available at [www.activealpha.gs.com](http://www.activealpha.gs.com).

<sup>3</sup> Particularly thoughtful investors can also add value through tactical asset allocation strategies. These strategies tend to work best, however, when they are limited to very compelling opportunities.

### **Market return**

No sensible person would invest in an asset riskier than a Treasury bill unless the investor had a reasonable expectation of receiving a greater return on that investment. Hence the theoretical case for the existence of stocks, bonds, and every other investment asset. Beyond the theoretical case for the existence of the risk premium, we have powerful historical evidence as well. Over long periods of time, for example, US equities have returned a substantial-but-inconsistent premium over T-bills. That premium was substantial, indeed, in the 1980s and (especially) the 1990s, but has actually been negative during the first few years of the 21st century. Predicting future equity premia is fraught with difficulty, but many observers believe that something like 4% is reasonable over the intermediate term. If we add that 4% to the return we expect on T-bills – and if we are right both about the size of the risk premium and the return on T-bills – we will get the future return on stocks.

Note that this premium is completely independent of manager or investor talent. We can obtain the equity risk premium cheaply by simply investing in an index fund, buying an exchange-traded fund, or by using derivative strategies such as index futures.

### **Manager alpha**

We have elsewhere addressed the complex topic of manager outperformance,<sup>4</sup> but for purposes of this discussion let's assume that it exists (as it almost surely does) and that it can be accessed by intelligent, very diligent investors (as it probably can be). Alpha, incidentally, is a measure of risk-adjusted outperformance, risk in this case being compared to the risk of the broader market. After all, since we can get the risk premium on the broader market by investing passively, any manager who subjects our assets to greater risk than that will not survive<sup>5</sup> unless he or she can justify the increased risk by obtaining increased returns. The principle is exactly the same as the one stated above: no one would invest in stocks unless they outperformed T-bills, and no one would (or should) invest with a manager unless the manager either outperforms the market or takes less risk.

Assuming, however, that we can identify managers who can outperform on a risk-adjusted basis, we now have access to both sources of investment outperformance: market return and manager alpha. So what does “portable” alpha have to do with all this?

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<sup>4</sup> Greycourt White Paper No. 32, “The Challenge of Identifying Managers Who Will Outperform in the Future,” by Gregory Curtis and Gregory R. Friedman (February 2004).

<sup>5</sup> Perhaps we should say, “*should* not survive.” It's astonishing how many managers incur greater-than-market risk while generating lower-than-market returns and still manage to attract investors. Roughly two-thirds of all the mutual funds in the Morningstar universe fit this description.

## Portable Alpha Strategies

*“Alpha, you see, is like girls and roses;  
it lasts while it lasts.”<sup>6</sup>*

### **Porting alpha within an asset class**

Let’s take a very simple example. Assume an investor, Betty, whose entire \$100 million portfolio will be invested in US large cap stocks. (Yes, Betty needs to find a better investment advisor.) Betty very much needs to get the market return on large caps, but she would like to do somewhat better if possible. She decides to allocate her large cap exposure between market return and manager alpha on a 70%/30% basis. In other words, Betty has some degree of confidence in her ability to identify outperforming managers, but she is not so confident that she wants to bet the farm on it – or even half the farm.

The traditional method of implementing this strategy would be for Betty to invest \$70 million in an index fund (or exchange-traded fund) and to invest the \$30 million balance with the potentially outperforming managers she has identified. What’s wrong with this picture?

Portable alpha strategies begin with the insight that it is not necessary for Betty to tie up \$70 million of her capital in order to expose 70% of her large cap portfolio to the market return. Betty could obtain that return derivatively – by, for example, holding S&P 500 index futures<sup>7</sup> and using the capital she has saved to invest with the alpha manager. Since futures are a leveraged bet on the S&P 500 Index, she can obtain \$70 million worth of market exposure for far less than \$70 million.<sup>8</sup> With the capital she has saved, Betty can invest more money with the high alpha managers she has identified.

Note that Betty has thus maintained her \$100 million allocation to US large cap stocks, and she has also maintained her 70% allocation to the market return. But she has greatly *increased* her exposure to manager alpha by “porting”<sup>9</sup> capital from a sector of the portfolio that cannot outperform the market (although it can outperform T-bills) to a sector of the portfolio that can outperform the market. Capital is moving in one direction, but alpha is moving in the other direction, to her market return portfolio. In addition, Betty could (and should) short the market to the extent she believes her high-alpha managers are

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<sup>6</sup> Paraphrase of a remark attributed to Charles de Gaulle: “Treaties, you see, are like girls and roses; they last while they last.”

<sup>7</sup> Portable alpha strategies require the existence of an index future, an exchange-traded fund, or a swap contract on the market portfolio. Managing portable alphas strategies using ETFs and swaps will be considerably more expensive.

<sup>8</sup> \$50,000 of margin debt will buy \$1 million of S&P 500 index futures, for example.

<sup>9</sup> “Port,” orig., to carry. *Webster’s New World Dictionary* (1998).

carrying deadweight<sup>10</sup> in their portfolios, and she could also structure her fee arrangements with the high alpha managers so that she pays little or nothing for market performance but much more for risk-adjusted outperformance.

If Betty is right about her ability to identify outperforming managers, her “portable alpha” portfolio will significantly outperform the more traditionally structured portfolio, simply because the traditional portfolio tied up far too much of her capital in a strategy that cannot outperform.

### **Porting alpha between asset classes**

Let’s look at another simple example. Assume that an investor, the Widget Pension Plan, is very focused on matching its assets (the pension fund investment portfolio) and its liabilities (the value of the retirement benefits it has promised to its employees). Widget therefore owns a \$100 million portfolio invested entirely in bonds.<sup>11</sup> Widget isn’t much interested in porting capital from the Lehman Aggregate Index to active bond managers because Widget believes that the alpha an active bond manager can produce is likely to be very small. On the other hand, Widget would very much like to enjoy the alpha it believes hedge funds can produce. The trouble is that Widget has no allocation to hedge funds and doesn’t want to have one. What to do?

Now that we are experts on portable alpha, the answer is child’s play. Widget will hold futures on the bond index and will use the proceeds to invest with the outperforming hedge funds it has identified. (It will also, of course, hedge out any market return exposure these managers have by shorting those benchmarks.)

Widget has thus transported capital from the bond portfolio to the hedge fund managers and has transported the hedge fund managers’ alpha back to the bond portfolio. If Widget is right about the outperforming managers it has identified, it will get the benchmark bond return it needs plus the alpha its hedge managers have produced. The Widget Company may never have to make another contribution to its pension plan!

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<sup>10</sup> Deadweight is that portion of a manager’s portfolio that clones the manager’s benchmark, but on which active management fees are being charged.

<sup>11</sup> Although this strategy of “liability matching” has its proponents (they surface just after every bear market), it has some shortcomings. The first is that the plan’s liabilities aren’t really known, but can only be estimated, so the bond portfolio may be matching something other than the plan’s liabilities. The second is that interest rate changes affect both the value of the bond portfolio and also the size of the liabilities, but not necessarily in the same increments. In other words, a 1% change in rates can have a far more profound impact on assets than on liabilities, or vice versa. Finally, the liability matching strategy condemns the Widget Company to higher (though, presumably, less uncertain) plan contributions.

## Challenges Associated with Portable Alpha Strategies

Recall that we began by saying we were using simple examples. True portable alpha strategies are designed to leverage investment capital across many different asset classes and market return strategies – few investors are going to have single-asset-class asset allocation strategies. Investors employing portable alpha will likely be using market neutral strategies, active overlay strategies, currency trading and global tactical asset allocation. But whether our portable alphas strategies are simple or complex, we will face several significant challenges.

### **The challenge presented by negative alpha**

While it is straightforward to identify managers who have outperformed in the past, it is enormously difficult to identify in advance managers who will outperform in the future. (See the Greycourt white paper cited in note 3.) Thus, there is a very real chance that our high alpha managers will turn out to be low alpha managers or even negative alpha managers. Using traditional strategies, unhappy surprises associated with manager underperformance tend to have relatively little impact on our wealth. In the case of Betty (above), for example, if her high alpha managers underperform the market by  $\frac{1}{2}$  of 1% per year, the actual harm to her US large cap portfolio would be only 30% of  $\frac{1}{2}$  of 1% - that is, 15 basis points – because she has only allocated 30% of her large cap exposure to these managers. And if (in a more sensible case) only 30% of Betty's capital had been exposed to the US large cap asset class, rather than 100%, then the damage to her overall portfolio would have been only 30% of 15 basis points, or 4.5 basis points per year. Betty might not be happy, but she would still be alive.

But with portable alpha strategies, we are making a much bigger bet on our ability to identify outperforming managers. If we are wrong, the leveraged underperformance of the active managers could overwhelm the risk premium provided by the indexed portfolio, leaving us with a very risky and expensive T-bill portfolio – or worse.

### **The challenge presented by trying to manage portable alpha portfolios**

Except for the very largest investors using the most sophisticated risk-control technology and employing the most experienced investment professionals, investors will tend to find that portable alpha sounds better in theory than it does in practice. How many investors have significant experience buying index futures or owning short positions in a benchmark? How many have in place risk controls designed to monitor leveraged market exposure daily? How many investors using traditional strategies even bother to calculate and manage market and active risk on an ongoing basis? How many investors have created “risk budgets” designed to eliminate sources of unintended risk, to identify sources of outperformance, and to quantify marginal contributions to risk and return? How many investors are prepared to abandon the traditional view of portfolio design as one focused on asset classes and instead refocus on sources of alpha and beta, regardless of asset class?

Moreover, given that the most efficient portable alpha strategies will focus on high-risk products with low correlations that are not capacity-constrained – i.e., strategies that are very difficult to access – most investors will find that they are relegated to less efficient strategies. The risk-return tradeoff in these strategies is likely to be less compelling.

### **The challenge presented by tax drag**

For tax-exempt investors – such as the Widget Pension Plan – the taxability of different investment strategies is irrelevant. But for taxable investors, taxes are likely to be the single largest drag on investment returns. And for these investors, portable alpha strategies, because they rely on the use of complex derivative instruments, will often have the effect of converting long term capital gain into short term gain. Yes, the recent tax bill has reduced tax rates, but we need to keep in mind that the difference between ordinary income taxes and capital gains taxes has actually increased, from 1900 basis points to 2000 basis points. Thus, taxable investors will want to approach portable alpha strategies with very considerable caution.

## Summary

Theoretically, portable alpha strategies make a great deal of sense, mainly because they deploy investor capital far more efficiently than do traditional strategies. But this efficiency comes with costs, and investors who wish to use portable alpha strategies will want to consider those costs very carefully. Our guess is that most investors who use portable alpha strategies in the future will rely on outside firms to help them design, implement and (especially) monitor those strategies.

We will be happy to discuss this memo at your convenience.

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