# Hedge Funds: Finding the Right Allocation

**Some hedge funds have garnered outstanding returns in recent years, but it's crucial to consider a number of key factors before deciding how much to invest**

HEDGE FUNDS REPRESENT A NEW FRONTIER FOR much of the broad investing public. Recent newspaper headlines have trumpeted their spectacular successes and equally spectacular failures. So the question investment managers hear most frequently from their clients comes as no surprise: How much should I invest in hedge funds?

In order to answer that question, it's imperative to separate the facts from the hype. There's no question that hedge fund investments have grown tremendously, from $200 billion in 1995 to $1.1 trillion just 10 years later.[1] They've attracted investors from across the wealth spectrum—from professional investors like large university endowments and pension plans to some of the world's wealthiest families and, more and more, the so-called mass affluent.

In a striking sign of the times, the number of hedge funds today actually exceeds the number of mutual funds, so it's clear that an awareness of hedge funds has reached beyond the ranks of the professional investor. But what the investing public at large may not fully appreciate is just how different investing in a hedge fund is from simply owning stocks and bonds.

### Hedge Fund Managers Employ a Wide Variety of Strategies

What sets hedge funds apart is that the tool kit available to managers is extremely large and varied. Thus, managers can be more opportunistic in seeking out potential return. Most hedge funds can use both long and short strategies, which means that a manager running a stock hedge fund can not only buy the stocks he thinks are going to go up—the longs—but also sell short the stocks he thinks are going to go down. And hedge fund managers can access a variety of financial instruments, like stock and bond index futures and options, and other financial derivatives such as swaps, caps and floors, and currency forwards. They also have the ability to tap into some unique investment strategies in which performance may have little to do with the general ups and downs of the markets.

For example, a number of hedge funds seek out returns by betting on events. Merger arbitrage funds focus on the outcome of mergers following this logic: Shares of stocks about to be acquired can trade at a discount to the offer price, reflecting the risk that the deal won't go through. Merger arbitrage managers try to capture that discount by purchasing the stock of the target company and employing techniques that minimize the market risk. Therefore, the fund's performance is affected less by the markets than by the manager's ability to identify whether or not the merger will go through. The performance of hedge funds is ultimately tied to a given manager's skill at identifying opportunities, since he's let loose to find returns however and wherever he can. Thus far, on average, managers have delivered.

### How Have Hedge Funds Performed?

To understand the performance of hedge funds, we studied one of the largest commercially available hedge fund databases. We divided the funds into two categories based on the type of strategy used.[2] The first category is termed non-directional, also known as absolute return. A merger arbitrage hedge fund is one of many examples of such a strategy. Generally, these hedge funds attempt

[1] Source: Hedge Fund Research, Inc.
[2] The TASS Database includes the net-of-fee performance of individual hedge funds whose managers have elected to report to the database. As of June 2005, nearly 6,000 funds were included in the database. In constructing our Absolute Return Hedge Funds, Directional Hedge Funds, and Fund of Funds indexes, we included the performance of funds only after their managers have decided to report to the database, and only for those funds that have had at least $10 million in assets under management. We also included the performance of all funds in the database that are no longer currently reporting. The index is equal weighted.

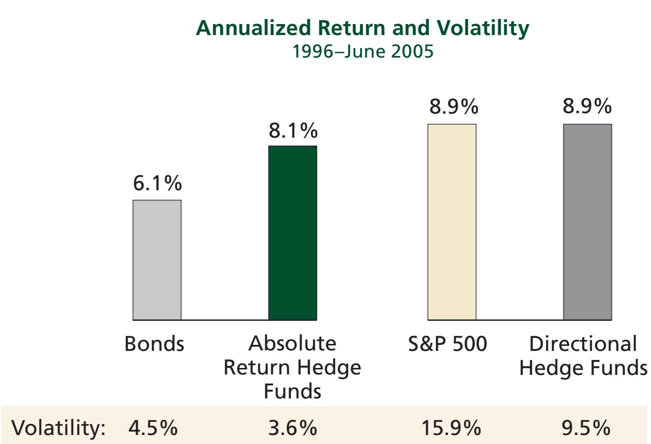
to neutralize the effect of broad movements in the markets, and therefore managers claim they can make money in any type of market environment while maintaining low volatility. For this reason, non-directional hedge funds are often compared to bonds (although the tools the manager uses don't remotely resemble the strategy of buying bonds).

As the left side of *Display 1* shows, absolute return hedge funds have, on average, beaten bonds hands down. Over roughly the past 10 years, hedge funds that have used this type of strategy have generated returns two percentage points per year higher than bonds, with volatility, as shown in the bottom box, a bit lower.

The second major category of hedge funds we studied employs directional strategies—long/short equity and global macro hedge funds are examples. In contrast with non-directional hedge funds, directional hedge funds are willing to have some exposure to the broad market. Some make long-term investments and others are constantly moving in and out of opportunities, so it's not surprising that they have higher volatility than absolute return funds. Most investors liken them to stocks. As you can see on the right side of *Display 1*, over the nearly 10-year period, the average return from directional hedge funds has equaled that of the broad stock market, with roughly half the volatility.

Display 1

**Better Risk-Adjusted Historical Returns**




We group Convertible Arbitrage, Event Driven, Equity Market Neutral, and Fixed Income Arbitrage hedge funds (as defined by the TASS Database) into our index of Absolute Return Hedge Funds. We group Long/Short Equity, Emerging Markets, CTAs, and Global Macro hedge funds (as defined by the TASS Database) into our index of Directional Hedge Funds. Bonds are represented by the Lehman Aggregate Bond Index.

Source: Lehman Brothers, Standard & Poor's, TASS, and Bernstein

Because hedge funds have performed so well, providing far better return per unit of risk than their stock or bond counterparts, many investors wonder if they should allocate a significant portion of their wealth to them. Indeed, many wealthy investors may want to earmark a sizable allocation. But our research shows that the right allocation can range from as little as nothing at all to as much as 30%, depending on the client and the hedge fund's characteristics. To explain the rationale behind these numbers, it's necessary to dig deeper into the issues of return, risk, and correlations.

### Scant History on Hedge Fund Returns

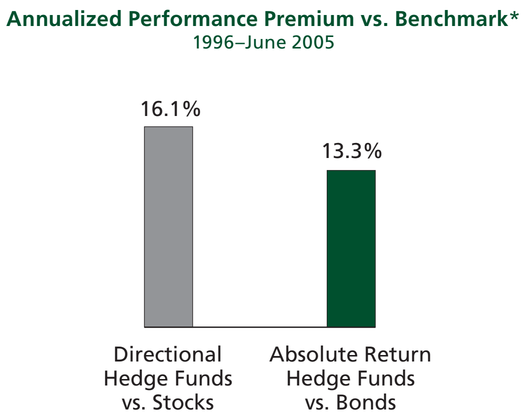
When studying good old-fashioned stocks and bonds, we have 100 years of return data covering 16 different countries. This history includes all types of economic environments: world wars, depressions, and periods of rampant inflation. We know that the fundamental driver of stock returns is long-term corporate earnings growth, and that for bonds, it's the cash flow–generating power of a company or government and the movement of interest rates. This knowledge allows us to draw asset allocation conclusions and feel that they're relatively reliable.

In the case of hedge fund returns, the situation is quite different. We really have only *one* 10-year period with good data on hedge fund returns, and many of the hedge funds available today weren't even around during the two most difficult market periods of the last decade: the Russian debt crisis in 1998, which caused the liquidity problems that proved to be Long-Term Capital Management's undoing, and the collapse of the technology sector in 2000. Because the operations of some funds are intentionally not transparent, it's harder to know exactly what's driving returns now, let alone predict what will drive them in the future.

Of course, any new asset class or investment category is going to have a short history. That's not necessarily a reason to steer clear of it. But it is a reason to exercise caution when deciding on an allocation. That said, the history we *do* have reveals some remarkable numbers. *Display 2* shows the annual performance premium earned by a top-performing hedge fund manager (one whose returns exceeded those posted by 90% of his peers) in each of the two major categories in relation to their relevant benchmarks. This top directional manager registered stunning performance, outperforming stocks by 16 percentage points annually. Our representative top absolute return manager outperformed bonds by 13 percentage points. These are exceptional results, and investors who believe they can identify a top-returning hedge fund manager should allocate enough to benefit.

Display 2

**Top Managers Significantly Outperform**




*The hedge fund managers at the 10th percentile of the indexes. See footnote 2 (page 12) for a complete description of the Directional Hedge Funds and Absolute Return Hedge Funds indexes.
Source: Federal Reserve, Standard & Poor's, TASS, and Bernstein

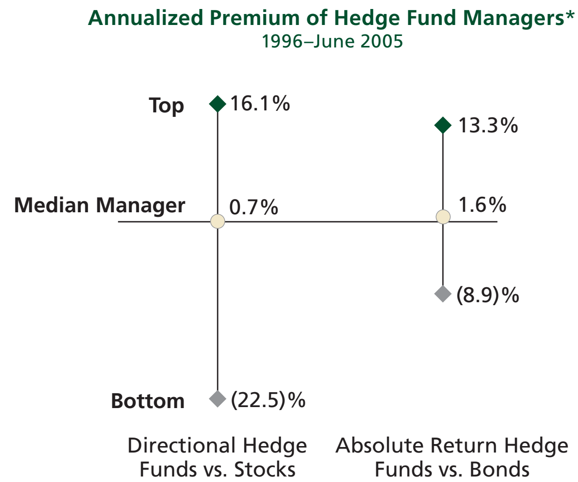
## We Won't All Find the Top Manager

But in the search for the exceptional manager, the investor must remember he's fallible. All hedge fund investors can't own the top 10%—or even 25%—of managers. An investor may choose a manager who turns out to be mediocre—or even one who posts disastrous results.

And, in fact, our research shows that the dispersion in premiums between top- and bottom-performing managers is large (*Display 3*). The yellow bullets show the performance premium of the median manager—the manager right in the middle of the pack—and the gray diamonds denote the performance deficits of the bottom

Display 3

**Return Dispersion Among Managers Is Significant**




*Managers at the 10th, 50th, and 90th percentiles of the indexes. See footnote 2 (page 12) for a complete description of the Directional Hedge Funds and Absolute Return Hedge Funds indexes.
Source: Federal Reserve, Standard & Poor's, TASS, and Bernstein

managers (those who underperformed 90% of their peers) relative to the performance of stocks and bonds. While an investor picking a median manager would still boost returns, a large allocation to one of the poor-performing managers would really damage one's wealth. Allocation is a critical means of guarding against that downside risk.

## Taxes Can Erode Hedge Fund Returns

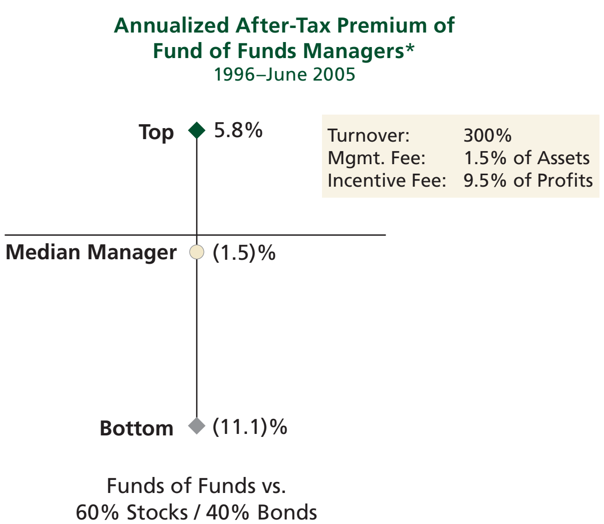
Our analysis thus far has focused on hedge fund returns before taxes. And that's certainly what the big endowments and pension funds would care about—they don't pay taxes. But private investors by and large do. And in hedge funds, constant trading is not the exception but the norm. The average turnover rate is 300%, meaning the entire portfolio is bought and sold three times a year. One obvious consequence of this is that the hedge fund's return is subject to short-term gains and, in some cases, ordinary income taxes, which erode what the private investor actually receives. Whether we look at directional or absolute return strategies, top managers still outperform handsomely. But we estimate that for the median manager, the impact of taxes means that his after-tax returns are worse than those of the stock or bond market.

While most investors have recognized that picking the right hedge fund is a critical decision, many acknowledge that they lack the experience to make such a decision. That has spurred the growth of the fund of funds industry, in which professionals pick a group of hedge funds for an investor. That should, the thinking goes, increase the investor's chances of getting a good manager—one who can overcome the higher tax hurdle—and simultaneously provide the benefit of instant diversification that a stable of hedge funds offers. But fund of funds managers charge a pretty penny for their services. An investor in a fund of funds pays the fees of each underlying hedge fund *plus*, on average, an additional management fee of about 1.5% of assets and 10% of profits to the fund of funds manager.

After all these costs—and taking into account fees and taxes on the underlying funds—we estimate the average fund of funds manager does worse than the median individual hedge fund manager, not better. In *Display 4*, we compare returns of funds of funds to returns from a blend of stocks and bonds—a 60/40 mix—since funds of funds are typically a blend of directional and absolute return strategies. Not only does the median manager trail the traditional 60% stock/40% bond mix by 1.5 percentage points per year, but there is a negative asymmetry in returns—the upside has been cut, but there is still significant performance risk on the downside.

Display 4

**Fees and Taxes Are a Tough Hurdle for Funds of Funds**



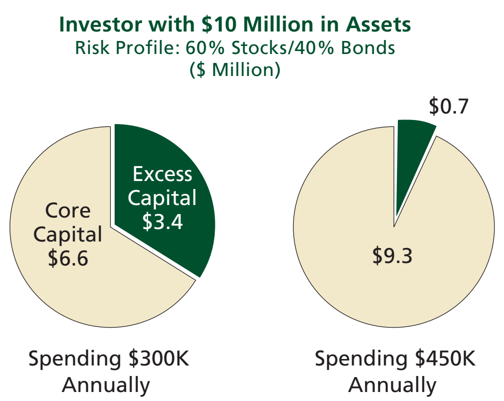

*Managers at the 10th, 50th, and 90th percentile of the index. See footnote 2 (page 12) for a complete description of the Fund of Funds Index.
We calculated monthly after-tax returns and applied actual ordinary income tax rates and capital gains tax rates that were in effect during each month.
We assumed that 81% of the return was characterized as ordinary income and 19% as long-term capital gain. The actual tax liability stemming from any of the individual funds may vary meaningfully from these estimates. The benchmark used versus funds of funds was a 60/40 stock/bond mix of after-tax stock benchmark returns taxed at 60 basis points per year and after-tax bond benchmark returns generated using municipal bond returns.
Source: Lehman Brothers, Standard & Poor's, TASS, and Bernstein

## Setting the Allocation: Begin with Excess Capital

The allocation decision is critical in positioning the investor to participate in the prospects for a strong upside while limiting exposure to the downside. In our view, investors interested in hedge funds should invest only the portion of their capital that's not critical to their future spending needs, including a buffer for withstanding even some of the worst markets. And in order to value this excess number, it's important to understand the total financial picture—an investor's assets and risk profile, income and expenses, and time horizon. For example, let's consider an investor with $10 million in assets who is spending $300,000 per year (*Display 5*). Assuming he's got a fairly average risk profile, as represented by his allocation of 60% stocks and 40% bonds, as much as 34% of his total wealth could be deemed excess capital, based on our proprietary quantitative analysis. Another investor with the same $10 million allocated 60/40, but who is spending $450,000 per year,

Display 5

**Allocation: Only Excess Capital Should Be Considered**




Hedge fund recommendations are sample recommendations based upon the characteristics of one specific client and should not be construed to represent the appropriate allocation for every client. See footnote 3 (page 17) for a complete description of the allocation process and its limitations.
Source: Bernstein

has just 7% of his wealth to think of as excess capital. But determining how much an investor could *afford* to allocate is just the starting point. There are other key factors to consider, such as risk.

### Hedge Funds Have Risks Beyond Volatility

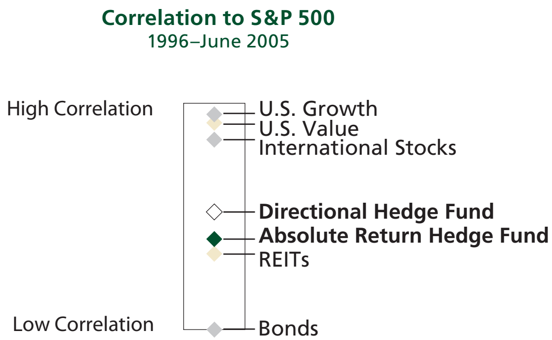
As mentioned earlier, hedge funds have posted strong returns with lower volatility than their stock and bond counterparts. But to round out the picture, it's necessary to consider that volatility is not the only measure of risk a client could face. Volatility takes into account what "normally" happens, but it doesn't reflect just how far outside the normal distribution of returns bad returns can be. For that we need to look at another measure of risk: the peak-to-trough loss of an investment. This is an important measure, because it's the size of the loss clients actually realize—what they need to be prepared to withstand in order to be in the investment long term. If we look at absolute return hedge funds over our 10-year period, we see that while the largest loss that bonds experienced was about 4%, absolute return funds on average experienced a loss of almost 10%—and some individual funds did far worse. The higher return and lower volatility of these funds versus bonds might have fooled investors into thinking that their loss potential was less.

### Correlation to Other Asset Classes Is Key

Finally, let's examine correlations. Building a portfolio that combines assets with low correlations—meaning they perform substantially differently under the same circumstances—is a foundation of investment planning. On this measure, hedge funds can be a significant addition to one's allocation. In *Display* 6, we plot the correlations between the S&P 500 and a range of other asset types. The higher the asset type on the bar, the closer its correlation with the S&P 500; thus, its performance is likely to move in line with the broad stock market. The lower the asset, the more likely that its performance will not move in tandem with the S&P 500. The average directional and absolute return funds have had relatively low correlations to the broad market. That makes sense considering that hedge fund returns are driven by the managers' security selection or trading strategy, not by how the broad market is performing.

Display 6

**Hedge Funds Have an Attractive Correlation Profile**




Asset classes are represented by the following—U.S. Growth Stocks: Russell 1000 Growth; U.S. Value Stocks: Russell 1000 Value; International: Morgan Stanley Capital International (MSCI) All Country World Index—ex-U.S.A.; REITs: National Association of Real Estate Investment Trusts (NAREIT) Index; Hedge Funds: TASS and Bernstein; Bonds: Lehman Aggregate Bond Index. Past performance does not guarantee future results.

Source: Lehman Brothers, MSCI, NAREIT, Russell Investment Group, Standard & Poor's, TASS, and Bernstein

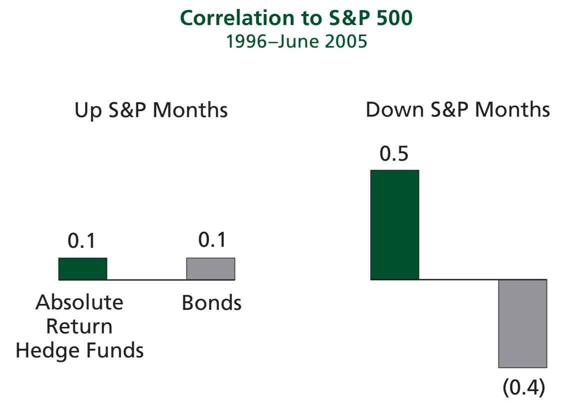
But when we focused our analysis of correlations solely on the periods in which the stock market was declining—precisely when having poorly correlated assets was most critical to a portfolio—the picture changed. Absolute return hedge funds' correlations with stocks jumped to 0.5, which means that these hedge funds were more likely to follow the market down. Bonds, on the other hand, were very negatively correlated to stocks when stocks fell (*Display 7*). Put differently: Bonds are likely to be rising when stocks are falling. That's the kind of stabilizing force you want at work in your overall portfolio.

Why don't absolute return strategies perform the same way? Well, many absolute return–type managers are seeking returns in more illiquid areas of the market or in securities with lesser credit quality—trying to pick up some extra return where they can. Most of the time, they are rewarded for taking such risks. But during difficult markets, these strategies may become vulnerable. Investors tend to flee to quality and will move to the areas of the market deemed safest, such as Treasury and municipal bonds.

Higher correlations during times of stress and the potential for greater-than-expected losses are key reasons why a wholesale shift out of bonds and into absolute return

Display 7

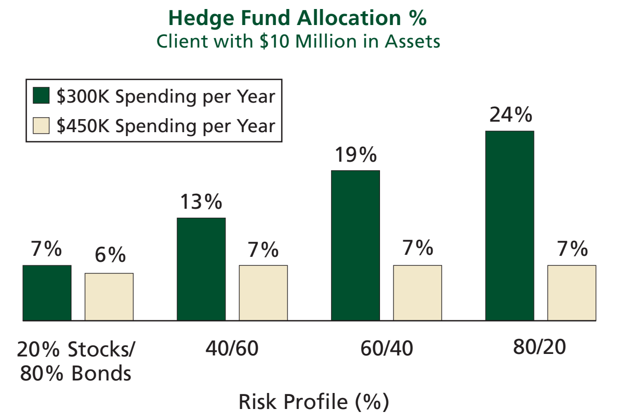
**During Market Stress, Correlation Is Less Favorable**




See footnote 2 (page 12) for a complete description of the Absolute Return Hedge Funds Index.
Source: Standard & Poor's, TASS, and Bernstein

Display 8

**Hedge Fund Allocation Recommendations Vary**

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Source: Bernstein

hedge funds is ill advised. Even the lowest-volatility funds carry more risk—which is why one's ability to tolerate risk means a lot in establishing a hedge fund allocation.

## Determining Asset Allocation

So how much should investors entrust to hedge funds? While there will always be some art to this science, marrying the risk, return, and correlation characteristics of hedge funds with an investor's risk tolerance creates a spectrum of allocation choices.[3]

Let's return to our investor who is spending $300,000 per year out of his $10 million nest egg. Once the primary factors that affect hedge fund performance and risk are incorporated, our research shows that he should consider investing a portion of his capital in hedge funds. But the amount can vary substantially as his risk tolerance changes (*Display 8*). If his tolerance for risk is very low—as indicated by an overall portfolio allocation of 80% to bonds with the rest in stocks—a 7% allocation to hedge funds might be the best course of action. But even if he is very aggressive with risk—the profile of 80% stocks and 20% bonds—our analysis points to a maximum allocation of only 24%. As for our investor who is spending $450,000 per year, our analysis recommends allocating no more than 7% of assets, no matter how high his risk tolerance.

## Allocate to Hedge Funds Wisely

Hedge funds can provide *very* meaningful opportunities for added returns to qualified investors[4] with excess capital, if they understand and accept the risks of such an investment. When it comes to establishing just how much to invest, however, it's crucial to take into consideration how widely individual managers' returns can vary. It's important for each investor to pick the right hedge funds and to understand and monitor his choices. Investors should also look beyond gross performance numbers to understand how big a bite taxes and fees can take out of returns. And getting to a tailored answer—one that explicitly considers the investor's spending needs and risk tolerance—is essential. ■

[3] The recommendations regarding the allocations to hedge funds are based on an analysis and consideration of the financial circumstances and risk profile of one specific client and assume a tax-efficient hedge fund. The allocations to hedge funds in total recognize that there is unusual uncertainty regarding the ability of any hedge fund to achieve its premium goals, and therefore long-term risk is higher than it might appear. This leads us to limit the client's overall hedge fund exposure in a way that varies with the client's risk profile. These recommendations are intended to provide general guidance only and may not be suitable for all clients with this type of stock and bond allocation. The characteristics of hedge funds vary widely, and these funds may use aggressive investment strategies designed for investors who understand and are willing to accept the risks associated with funds that may utilize various investment strategies to enhance returns, including the use of leverage, investment in futures and options, and the technique of short-selling securities. There are substantial risks associated with investment in these products, including the loss of all capital invested. Sales of hedge funds are restricted to investors who meet certain qualification standards.

[4] To meet the qualification standards, potential investors for many hedge funds must be both "accredited investors" and "qualified purchasers." For individuals, this generally means persons having a net worth of at least $1 million and investments of at least $5 million. For entities, different rules apply.