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FIVE MYTHS ABOUT FEES

The truth BEHIND ANALYZING FEES
in the context of investment goals

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FIVE MYTHS ABOUT FEES

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EXECUTIVE SUMMARY

Of the three dimensions of investment management—return, risk, and cost—investors have direct control only over cost. Yet while investors have some control over fees, and fees make up the bulk of costs, research seldom focuses on fees. As a result, several popular myths exist regarding fees. This article identifies and analyzes five of those myths.

The first myth is that *fees should be as low as possible*. This baseline myth makes some sense, yet investors who follow this rule will only hold index funds, with no chance of outperformance. Instead, investors should maximize expected risk-adjusted alpha (i.e., utility) after fees. Investors should be willing to pay higher fees to managers with the ability to consistently deliver strong alpha. The lesson here: Don't analyze fees in isolation but rather in the overall context of return, risk, and cost.

The second myth is that *incentive fees are always better than fixed fees*. Investment performance is variable, and combines skill and luck. It is impossible to devise a perfect fee structure. Fixed fees pay a fixed amount for variable performance; incentive fees may pay large fees for lucky performance. While each fee type has advantages and disadvantages, particular investors may prefer one over the other based on their ability to pick skillful managers. In general, as that ability increases, investor preference for fixed fees increases.

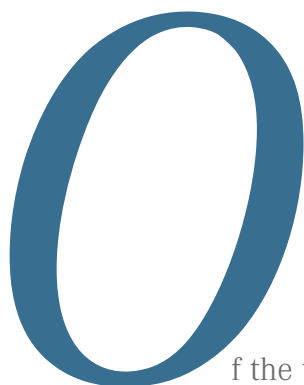
A third myth is that *high-water marks always help investors*. While these provisions often help investors, they can distort incentives in harmful ways. Consider a manager far below the high-water mark. That manager may take excessive risk, or go out of business and return the investors' money, effectively resetting the high-water mark at a lower level.

Our fourth myth is that *hedge funds are where the alpha is—they deserve their high fees*. While hedge funds have some structural advantages, traditional investment firms focused on institutional clients also attract talented managers and provide their own advantages to institutional investors. Also, keep in mind that the current hedge fund boom has not increased the overall supply of alpha; it was always zero and it still is. With high-fee strategies, one must be especially mindful of the goal of maximizing risk-adjusted alpha *after* fees.

Our fifth myth is that *you can always separate alpha from beta and pay appropriate fees for each*. While such a structure represents an ideal, most investment strategies involve some mixing of alpha and beta. Only index funds and market-neutral long-short funds avoid this mixing entirely. In addition, there are many asset classes—including real estate and private equity—for which index funds and market-neutral funds do not exist. Do not avoid such asset classes just because you can't separate alpha and beta. Do carefully analyze the proportions of alpha and beta the product delivers, and pay appropriately for the combination.

In the end, we return to the three dimensions of active management: return, risk, and cost. Investors must analyze fees in this overall context to manage their portfolio appropriately.

Introduction



f the three dimensions of investment management—return, risk, and cost—investors have direct control only over cost. Cost includes transaction costs and investment management fees. We focus here on fees. While return, risk, and even transaction costs have been widely studied, fees are poorly understood, and there is little literature on them. Yet they are critically important: The present value of fees in a long-term investment relationship represents the transfer of a significant fraction of the investor’s capital to the manager. Moreover, the incentives provided by the fee structure have a strong influence on the manager’s strategy, particularly on the fund’s volatility, the mix of alpha and beta bets, and the fund’s size.

Investment management fees are a timely topic because of three trends in the investment landscape:

- Investors increasingly look to separate alpha from beta.
- The cost of beta has dropped to very low levels.
- An explosion of new alpha providers, including hedge funds, private equity firms, and even otherwise traditional managers, use unconventional fee structures.

Notably, the notion that focuses on separating alpha from beta also places strong emphasis on paying active fees only for the alpha portion of any investment and on looking closely at costs.¹ Very briefly, the literature says that:

- Investors can obtain beta at very low cost through index funds, exchange-traded funds (ETFs), futures, and swaps. Thus beta is one of life’s great bargains, if you believe that the market payoff for beta risk will be attractive.
- Alpha is scarce (because active management is a zero-sum game), difficult to find, and very valuable. It is expensive, and should be.
- The beta and alpha decisions are separate. An investor can build a portfolio of alpha sources from any mix of asset classes, and then add or subtract beta exposures as desired.

¹ See, for example, Kneafsey (2003), Leibowitz and Bova (2005), Thomas (2005), or Waring and Siegel (2003).

Our perspective in this article is that of the client, but we must also understand the manager's perspective. Fee negotiation is a game; sometimes client and manager interests are aligned, and sometimes they are opposed. To understand the game, we must identify the motivations of all the players.

Our goal is to provide some guideposts for investors seeking to maximize expected alpha after fees. Toward that end, we'll identify—and correct—a number of popular myths regarding fees. Along the way, we'll describe key elements of the fee negotiation game and determine conditions under which the client should prefer fixed or incentive fees.

Fee negotiation is a game; sometimes client and manager interests are aligned, and sometimes they are opposed. To understand the game, we must identify the motivations of all the players.

The investor's goal is to maximize expected returns subject to a risk budget constraint. For most investors, this involves maximizing expected alpha after fees. This isn't easy.

It's difficult enough to maximize expected alpha before fees. Managers deliver alpha with great uncertainty. It takes time to distinguish winners from losers, or (among winners) to distinguish the truly skillful from the merely lucky. And even time can never eliminate all such ambiguity. Yet investors must rise to this challenge to rationally allocate risk to active managers.

Incentive fees make the challenge of estimating expected alpha after fees even tougher. These fees both depend on performance and can influence the underlying strategy. And clients must often decide whether their expected alpha after fees is higher with an incentive fee or the more traditional fixed or, *ad valorem*, fee.

Let's start with a list of popular myths about fees. We address the issues raised by each myth to analyze the truth behind them:

- **Myth 1:** Fees should be as low as possible.
- **Myth 2:** Incentive fees are always better than fixed fees.
- **Myth 3:** High-water marks always help investors.
- **Myth 4:** Hedge funds are where the alpha is—they deserve their high fees.
- **Myth 5:** You can always separate alpha from beta and pay appropriate fees for each.

Let's examine these one at a time.

Myth 1: Fees should be as low as possible

This baseline fee myth makes sense. Most people understand that they should pay the lowest possible price for a given good. *For a given good* is the tricky part, however.

We've already noted that index fund fees are very low. They range as low as 0.01% for very large accounts managed to track highly liquid indexes, and cap out at around 0.20%, except in a few difficult-to-trade asset classes. Swaps, futures contracts, exchange-traded funds, and other ways of achieving beta exposure are also relative bargains. (We quote fees as annual rates charged as a percentage of assets.)

Compared with index fees, typical fees for active management seem toweringly high. And the zero-sum nature of active management means that, on average, clients waste these fees. It is difficult to put a number on typical active management fees as the products vary so widely, but on average for equities, these are roughly 0.50% for traditional long-only investments and 1.35% for retail accounts.²

Alternative investments, such as hedge funds and private equity funds, charge annual fixed fees of 1–2% of assets under management *plus* an incentive fee equal to 20% or more of performance above some benchmark.

To provide additional perspective, consider the fee as a transfer of capital to the manager over the course of a somewhat typical 10-year holding period.³ A 0.10% fee on a retail index fund transfers about 1% of capital, while the 0.50% and 1.35% active institutional and retail fees transfer 5% and 13.5% of capital. Since clients pay fees with certainty for the expectation of uncertain alpha, these are significant sacrifices to make in the hope of alpha.

Goetzmann, Ingersoll, and Ross (2003) use an option pricing model to estimate the value of hedge fund management contracts. Using reasonable inputs, including estimates of the rate at which investors exit the fund and thus stop paying management fees, they find a contract is worth 10–20%, and even as much as 33%, of the amount invested. A permanent allocation to a portfolio of hedge funds involves quite a large transfer of capital from the investor to the population of managers.

So active fees are much higher than index fees and involve significant transfers of capital to managers. This would seem to imply investors should try to minimize their fees by hiring index managers and the lowest-cost active managers. But institutional and retail investors each hire active managers for upward of 70% of their assets. Does this make sense?

As Waring et al. (2000) have discussed, hiring active managers makes sense only under two conditions. One, the investor believes that active management is possible—that is, there are managers who will produce alpha on average in the future. Second, the investor must be able to identify those—presumably rare—skilled managers.

2 The institutional average comes from the eVestment Alliance 2005 Fee Study, and an institutional product review for the third quarter of 2005 from Casey, Quirk and Associates. The retail numbers are based on third-quarter 2005 data for domestic stock mutual funds (excluding institutional share classes) in the Morningstar Principia database.

3 We base the 10-year holding period on research by the firm Casey, Quirk and Associates showing that plan sponsors typically turn over 10% of their investment manager pool per year.

Any investor satisfying those conditions should rationally aim to maximize expected alpha after fees, not just minimize fees. Achieving this objective means sharing the alpha with the manager. For any given level of expected alpha, the investor should try to minimize the fee. But in equilibrium, the investor must share a substantial fraction of the alpha with the manager, because alpha is rare and valuable.

So what is the right level of active management fees? The market provides one answer, in the prices we describe above. For example, according to the market, 0.50% is about the right price for a traditional long-only active equity product.

But the market may not be right, and it is certainly wrong on average. What about a more fundamental approach to determining the right fee level? Let's start by considering the utility offered by different managers. We will measure investor utility as:

$$U = \alpha - \lambda\omega^2 \tag{1}$$

where Equation (1) includes alpha net of fees, the investor's risk aversion, λ , and active risk, ω . Risk-averse investor utility falls short of the net alpha due to the penalty for risk. If two managers provide the same gross alpha, but different risk levels, the lower-risk manager provides higher utility to the investor.

Equation (1) supports two implications. First, manager fees should fall significantly not only below gross alpha, but also below gross utility. Second, in the case of two managers with identical gross alpha, investors should be willing to pay higher fees to the lower-risk manager. Note that the lower-risk manager has the higher information ratio (*IR*), where:

$$IR \equiv \frac{\alpha}{\omega} \tag{2}$$

Ennis (2005) explores similar territory, trying to identify plausible ranges of fees, working from the impact of fees on the likelihood of achieving positive alpha after fees.

Exhibit 1
PROBABILITY OF POSITIVE NET ALPHA
 (given expected before-fee alpha of 4.2%)

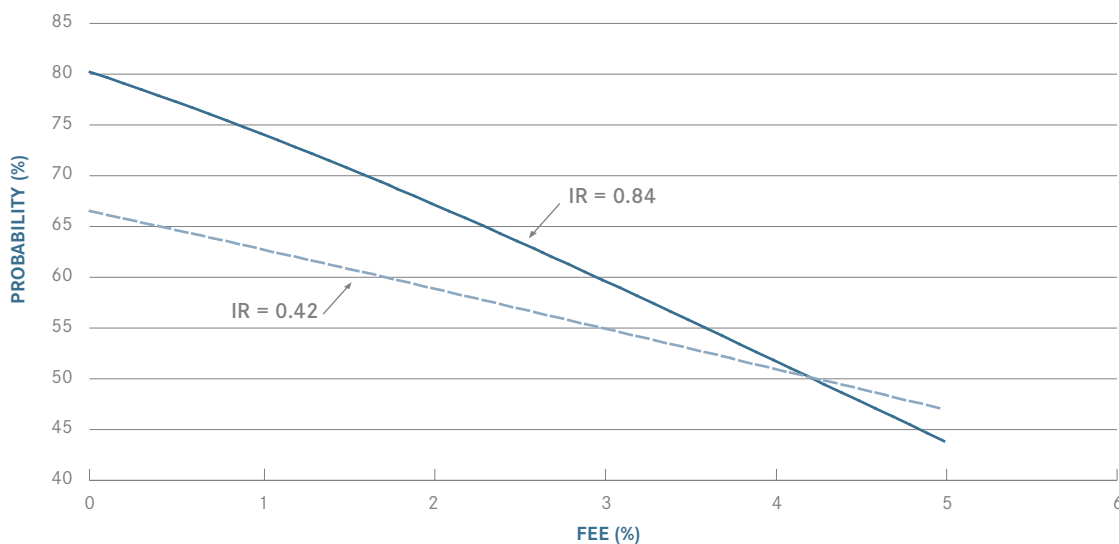


Exhibit 1 captures the spirit of his approach and results, which closely agree with the utility analysis.

Take, as an example, a manager (Manager 1) who takes active risk of 5%, and who the investor expects to deliver 4.2% alpha before fees. Assuming normal distributions, the investor expects this manager to deliver positive alpha before fees with 80% probability. But as fees rise, this probability of positive after-fee alpha falls dramatically. Note that a 50% probability of positive alpha corresponds to zero expected alpha—the annual active return is as likely to be positive as negative.

Myth 2: Incentive fees are always better than fixed fees

Incentive fees have many advantages over fixed fees, but they have disadvantages as well. The better choice will depend on circumstances. For example, we construct a simple model showing that as investors become more able to choose skillful managers, their preference moves from incentive to fixed fees.

But first let's describe how incentive fees work, and the advantages and disadvantages of both fixed and incentive fees. The simplest incentive fees

Investors should be willing to pay higher fees to managers with certain characteristics, especially the ability to consistently deliver strong alpha and high information ratios.

One obvious lesson from Exhibit 1: Fees must remain significantly below the expected alpha. But Exhibit 1 includes a more subtle lesson as well. Consider Manager 2, with the same expected alpha before fees, but with higher active risk (10%) and hence a lower information ratio. Exhibit 1 implies that investors would pay higher fees to the more consistent (higher IR) manager. This agrees with our analysis based on utility.

Beyond this analysis of utility and probability of outperformance, more consistent managers have an additional advantage: Investors have higher confidence in their skill.

So what is the truth about keeping fees as low as possible? Our fundamental analysis has shown that investors should be willing to pay higher fees to managers with certain characteristics, especially the ability to consistently deliver strong alpha and high information ratios. Ascertaining those characteristics is very challenging. Still, what matters is not the fee level but the manager's ability to deliver utility after fees.

include a base fee plus a percentage of the return above some performance benchmark. More complicated structures add caps, high-water marks, and other features to the calculation of the sharing amount. When managers offer investors the choice of either a fixed or an incentive fee, the base fee should lie below the fixed fee, and the *expected* total incentive fee (base plus expected performance share) should exceed the fixed fee alternative. A fixed (certain) fee should equate to a higher but uncertain fee.

With that basic structure in mind, let's discuss the pros and cons of each fee structure. The pros and cons of fixed fees arise mainly because they extract a fixed amount for variable performance. The certainty associated with fixed fees benefits both clients and managers. The disconnect between fees and performance raises several issues, some benefiting clients and some benefiting managers.

The certainty of fixed fees allows clients to budget accurately for these costs, and provides managers with low-volatility revenue. This in turn facilitates investment in the manager's business—additional research, product improvements—of benefit to managers and clients.

The disconnect between fixed fees and variable performance raises two main issues. First, the fee in a given year or over time may be too high or too low. This can advantage the manager at the expense of the client, or vice versa, at least in the short run. In the longer run, paying the wrong fee causes problems for both manager and client.

All active strategies have capacity limits. As assets grow, trading costs rise, and the manager has more and more difficulty implementing insights in the portfolio. Expected returns fall (see, for example, Kahn and Shaffer [2005]). Capacity constraints create conflicts of interest between the client and the manager.

So what about incentive fees? They address the structural problem of fixed fees by directly connecting pay and performance. This seems like an unambiguous improvement except that performance can arise out of skill or luck, and this raises a different issue.

Paying only for performance can facilitate investing with unorthodox or more risky managers. It can also lead to better pools of managers, by eliminating the temptation to stick with poorly performing managers to try to earn back fees already paid.

If the fee is too high for the alpha delivered, a manager may benefit for a while, until the client terminates the manager. Exacerbating the damage, this situation sometimes leads clients to keep poorly performing managers too long, in the hope of earning back the fee. If the fee is too low, the client benefits until the manager neglects the product, under-resources it, dumps the client, or gathers too much in additional assets.

This brings up the second issue arising out of the disconnect between fees and performance, in particular the interaction of fees with the different interests of clients and managers. Clients want high returns. Managers want high profits. With fixed fees, the manager maximizes profits through extensive asset gathering, even if asset gathering weakens performance.

But first, incentive fees do address the two issues concerning fixed fees. By connecting fees to performance, they avoid years when fees and performance are out of balance. And incentive fees also help align the different interests of clients and managers. They motivate managers to deliver strong performance and to avoid raising assets to the detriment of performance. They even motivate the key investment professionals to focus on investing, not asset gathering. Managers and clients can both prosper from these aspects of incentive fees.

Incentive fees even have some related side benefits. Paying only for performance can facilitate investing with unorthodox or more risky managers. It can also lead to better pools of managers, by eliminating the temptation to stick with poorly performing managers to try to earn back fees already paid.

On the negative side, the volatility associated with performance fees causes problems for clients and managers, for the same reasons that the certainty of fixed fees creates benefits. Clients can't budget as easily for incentive fee costs. Managers face volatile revenue streams.

Unfortunately, while incentive fees create this temptation for managers, the resulting behavior does not correspond to how clients want their money managed. Note that the various embellishments to incentive fees—high-water marks, longer measurement periods—do not eliminate these issues.

*Beyond the temptation to increase volatility,
incentive fees offer more general gaming opportunities.*

The new issue raised by incentive fees follows from the observation that managers receive the same fee whether performance comes from skill or luck. And, given that incentive fees have an option-like character (especially in their payment for positive performance without a symmetric penalty for negative performance), they become more valuable with increasing volatility of alpha. Managers can therefore increase incentive fee value by adjusting the investment strategy. This is not in the interest of the client.

Beyond the temptation to increase volatility, incentive fees offer more general gaming opportunities. As Black (1976, p. 217) notes:

When things go badly, some people react by doubling their bets. They increase their exposure to risk in hopes of recouping their losses....
When things go well they may reduce their exposure to risk so they can't lose what they have won. It's a very common gambling strategy and it's a very common philosophy of life.

So each type of fee has advantages and disadvantages. And either can be a reasonable way to compensate a manager. So why might a particular client prefer one over the other? In part, this will depend on how a client weighs the particular advantages and disadvantages we have discussed. Beyond that, preferences will depend on the ability to pick skillful managers.

Assume that of the population of active managers, 20% are skillful enough to deliver an alpha of 1.5% per year before fees. The remaining 80% cannot beat their benchmark and thus deliver an alpha of -0.20% before fees.⁴ The assumption that 20% of managers are skillful is more favorable than the most optimistic persistence-of-performance studies would imply (see, for example, Grinold and Kahn [2000, p. 566]).

We will further specify that there are only two possible fee schedules: a flat 0.30% fee, or an incentive fee of 0.20% plus 20% of the positive alpha. With the incentive fee, skillful managers receive $0.20\% + 20\% \times 1.50\% = 0.50\%$ on average, while unskillful managers receive 0.20%.

4 For those worried about active management as a zero-sum game, we can assume the skillful managers have somewhat smaller asset size, so that the size-weighted alpha is zero, but we ignore this issue for our current purposes.

A client with no ability to identify skillful managers has a 20% chance of success, since skillful managers make up 20% of all managers. Before fees, the client's expected alpha is:

$$E\{\alpha\} = 20\%(1.50\%) + 80\%(-0.20\%) \Rightarrow 0.14\% \quad (3)$$

With fixed fees, the client loses 0.16% on active management. What about using incentive fees? The expected incentive fee in this case is:

$$E\{fee\} = 20\%(0.50\%) + 80\%(0.20\%) \Rightarrow 0.26\% \quad (4)$$

So, with incentive fees, the client loses 0.12% on active management. While neither case looks attractive—and active management should not look attractive to investors with no ability to pick managers—the incentive fee looks better than the fixed fee.

With perfect skill in picking active managers, on the other hand, the client will prefer fixed fees. For skillful managers, the fixed fees are 0.30%, while the incentive fees average 0.50%.

Between these extremes, there is some point of indifference between the two types of fee schedules. Exhibit 2 shows how this point depends in this example on the investor's skill in picking managers.

Exhibit 2 identifies three important regions, depending on skill in hiring managers. Below a 29% probability of success, investors should not pursue active management. The expected alpha after fees is negative. Between a 29% and a 34% probability of hiring skilled managers, investors should prefer incentive fees to fixed fees in this model. Above a 34% probability, investors would prefer fixed fees.

For comparison with required skill in other areas of active management, we can convert this to a required information coefficient, or IC. The IC, the correlation of forecast and realized returns, measures active management skill. With no skill, IC = 0; with perfect skill, IC = 1. Skillful stock-pickers exhibit ICs around 0.05 to 0.10. For skillful asset allocation managers, or market timers, ICs range from 0.10 to 0.20 at best. In our simple model, investors require an IC of 0.11 to achieve positive alpha net of costs, and an IC of 0.18 to prefer fixed to incentive fees.

The specific ranges change as we change model assumptions. In general, as the fixed fees increase, investors increasingly prefer incentive fees. As manager skill increases, investors increasingly prefer fixed fees.

Exhibit 2
INDIFFERENCE ANALYSIS BETWEEN FIXED AND INCENTIVE FEE

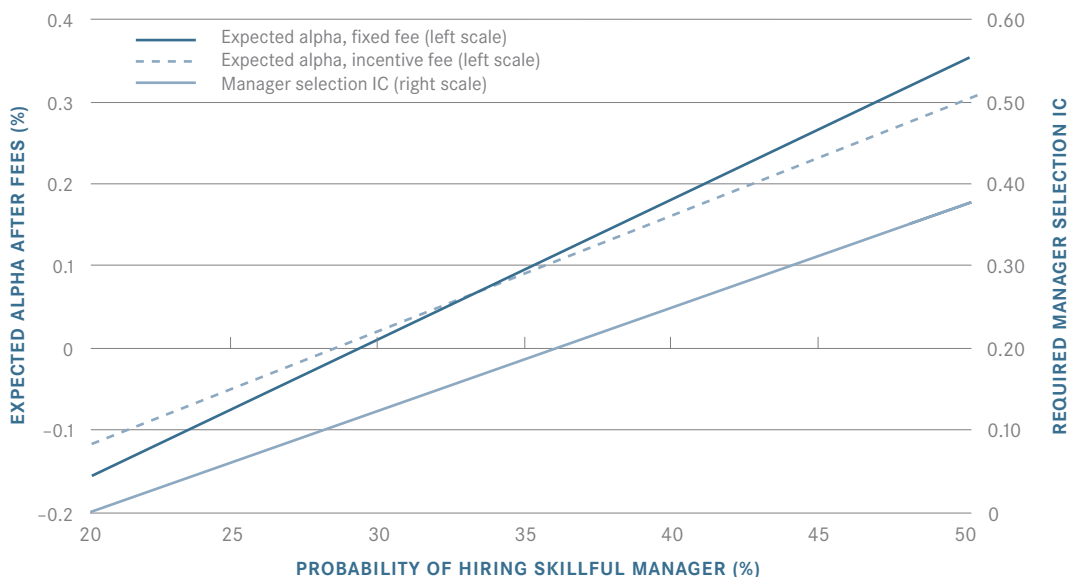


Exhibit 3
INCENTIVE FEE CALCULATIONS

Year	NAV	% Return	DOLLAR RETURN SUBJECT TO INCENTIVE FEE	
			Standard	High water
0	\$10			
1	\$20	100%	\$10	\$10
2	\$15	-25%	\$0	\$0
3	\$30	100%	\$15	\$10

*Myth 3:
High-water marks
always help investors*

To make incentive fees more palatable to investors, many firms offer high-water mark provisions. Such a provision calculates the incentive fee based on the highest previously achieved net asset value (NAV). This prevents an investor from paying twice for the same performance. Say that a fund experiences the returns shown in Exhibit 3, and that the incentive share is 20%.

Without a high-water mark, the incentive fee is \$2 in year 1 and \$3 in year 3, for a total of \$5. With the high-water mark provision, the manager collects no fee on the increase in value from \$15 back to the old high of \$20. The fee in year 3 is only \$2, for a total fee of \$4.

What could be fairer? With the high-water mark, the investor avoids paying twice for the travel from \$15 to \$20.

In fact, high-water marks do help investors in that they reduce the overall fee for a given pattern of investment returns. Unfortunately, they also introduce perverse incentives that can alter future return patterns.

Consider the predicament of the manager in our example after year 2. Any gain lower than \$5 produces no incentive fee. This increases the manager's motivation to take additional risk, whether the investor wants to or not.

Specifically, the manager may favor bets that add at least \$5 to NAV, preferring higher but less probable returns to the lower but steadier returns preferred by clients.

If the probability of returning to the high-water mark within a reasonable time is too low, the manager may close the fund and start up a new fund with a new high-water mark. The investor, then, also faces a new high-water mark, with a new manager. The investor thus pays twice for the same travel, although by different managers.

So high-water marks help investors only when the decline in NAV does not motivate the manager to increase risk or to close the fund. This may correspond to a narrow range of outcomes. We would caution investors to monitor the behavior of managers with high-water marks carefully when they are losing money.

*Myth 4:
Hedge funds are where the alpha
is—they deserve their high fees*

Let's start with the evidence that many investors believe hedge funds are high-alpha and then consider the more complex truth behind this myth.

Institutional investors—pension plans in particular—are today in desperate need of alpha. At the peak of the technology stock bubble, most plans were fully funded or even overfunded, and the search for alpha was a fun but not strictly necessary part of the job. But equity markets and interest rates have dropped since then, and most plans are now significantly underfunded. Along with increased contributions, they need alpha to deliver on promises to beneficiaries. The demand for alpha has never been higher.

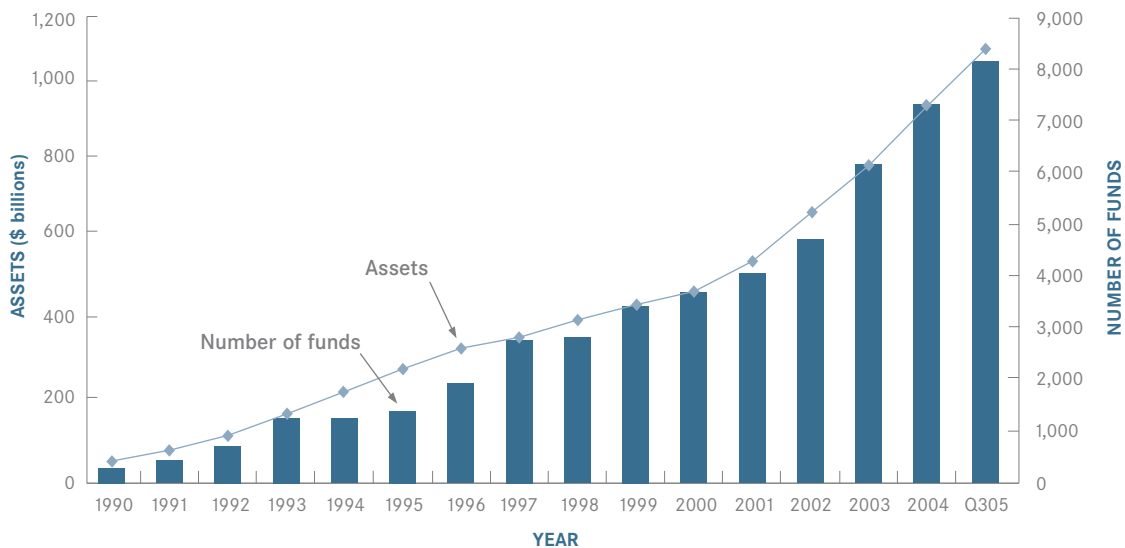
Consistent with this demand for alpha, as Exhibit 4 shows, we have seen large asset flows into hedge funds. Since hedge funds promise pure alpha returns for the most part, assets flowing into hedge funds are almost entirely assets in search of alpha.

Exhibit 4 also shows a large increase in the number of hedge funds. This provides a reasonable proxy for the flow of investment managers into the hedge fund arena.

Finally, we seem to have seen a significant rise in average hedge fund fees. Ten years ago, almost all hedge funds charged 1% of assets, plus 20% of performance above a benchmark. Now many hedge funds charge 2% of assets and/or incentive shares above 20%. Almost no funds charge less than 1% of assets, or 20% incentive shares. And, over these past 10 years, we have also seen growth in hedge funds of funds, with fund-of-fund fees layered on top of the hedge fund fees. We can't exactly quantify the average fee paid per dollar invested in hedge funds today, but with many investors paying significantly more, and basically none paying less, average fees have clearly grown over the past 10 years.

We have observed strong and increasing demand for alpha, confronting its limited supply. In response, prices and supply have increased. Unfortunately,

Exhibit 4
SIZE OF THE HEDGE FUND UNIVERSE, 1990–2005



Source: Hedge Fund Research, 2005.

the increase in supply is an increase in the supply of hedge fund managers offering alpha, not necessarily any increase in actual alpha.

So what is the truth here? First, are hedge funds where the alpha is? Structurally, hedge funds offer two distinct advantages over more traditional investments. They avoid constraints, like the long-only constraint, that can hinder investment performance. And they have the flexibility to invest in many non-traditional assets, from private equity to distressed debt to derivatives. Clarke, de Silva, and Thorley (2002) modify the fundamental law of active management (Grinold [1989]) to say:

$$IR = IC \sqrt{BR} TR \quad (5)$$

The information ratio of an investment product depends on the information coefficient (a measure of manager skill), the breadth, BR (a measure of opportunity), and the transfer coefficient, TR (a

- A large and traditional firm owned by someone else, where you spend considerable time marketing and asset gathering, you manage other people's money versus a benchmark, and you charge 0.50% and 0%.
- Your own business, where you spend most of your time on investing, you manage most of your liquid net worth alongside your investors, you ignore benchmarks, and you charge 2% and 20%.⁵

Of course hedge funds are not all wine and roses for managers. They fail much more quickly than institutional funds, because (like most entrepreneurial efforts) they are usually undercapitalized and forced to take risks that more established managers can avoid. And the perceived need to invest one's own money in the fund makes running a hedge fund even riskier.⁶

Structurally, hedge funds can offer greater breadth and higher transfer coefficients than more traditional products.

measure of how efficiently the manager's ideas impact the portfolio). Structurally, hedge funds can offer greater breadth (through the availability of more assets) and higher transfer coefficients (through lack of portfolio constraints) than more traditional products.

Beyond structure, what about talent? Exhibit 4 demonstrates the flow of managers into hedge funds. This is not surprising. Beyond just responding to the increasing demand for alpha, in which environment would you rather work?

Still, there is no question that hedge funds have attracted many investment managers, including many leaving traditional investment firms.

While the structural advantages clearly exist, and many investment managers have moved from traditional firms to hedge funds, beware the idea that hedge funds are where all the alpha is. First, Sharpe's (1991) arithmetic of active management shows that aggregate alpha must be zero. The increase in the number of hedge funds can't alter that. Aggregate alpha was always zero, and it still is.

5 Thanks to Elizabeth Hilpman of Barlow Partners for this example. She originally presented this in "Hedge Fund Management," a speech at the AIMR Financial Analysts Seminar, Evanston, Illinois, July 26, 2001.

6 Brown, Goetzmann, and Ibbotson (1999) estimate an annual attrition rate of 20% per year for established funds, with a presumably higher rate for new funds.

Second, the many advantages of hedge funds listed above appeal to both skilled and unskilled managers. Both have flowed into hedge funds. Unfortunately, it isn't easy to tell these two groups apart.

Third, traditional investment firms—particularly those focused on institutional clients like pension plans—have not stood still as demand for alpha, and hedge funds, has grown. Most now offer products with the same structural advantages as hedge

The simple answer is no. No manager is great independent of fees. At some price, a manager is just not worth it; the decision to invest in a hedge fund should always include an analysis of the impact of manager fees on the net performance delivered to clients. This is part of hiring traditional managers, and should be part of hiring hedge fund managers as well.

Some managers deliver beta that does not correspond to any readily available index. Some managers deliver alpha through timing of beta exposures.

funds, plus the transparency and institutional quality long demanded by these clients. They have recognized the work environment advantages of hedge funds and at least started to address the issues most important for attracting and retaining key investment staff. Institutional clients are desirable clients, due to their size, sophistication, and typically longer commitment to products. As long as traditional firms can retain their institutional clients, they should also be able to attract and retain key investment staff.

Finally, at least so far, traditional firms are the main sources for lower-turnover strategies designed specifically for the institutional investor need for alpha in bulk.

So hedge funds are not where all the alpha is. They haven't created any alpha in aggregate, and there are many good reasons for investors to continue to use more traditional investment firms. But at the same time, there are many talented hedge fund managers. Do they always deserve their high fees?

*Myth 5:
You can always separate
alpha from beta and pay
appropriate fees for each*

As we have seen, fees for alpha dramatically outpace fees for beta. You should never pay alpha fees for beta performance. Separating alpha from beta makes this rule completely transparent.

In some cases, investors already do purchase separated alpha and beta. Many products—including index funds, ETFs, futures, and swaps—offer low-cost, cleanly separated beta. A few products, including pure market-neutral equity funds (beta = 0) offer appropriately priced pure alpha. Beyond long-short, an active, long-only equity manager who carefully adheres to style, capitalization, industry, and factor neutrality delivers an essentially pure alpha active return.

But most active products today deliver a combination of alpha and beta. Furthermore, there are challenges to cleanly separating the two in many

such products. Some managers deliver beta that does not correspond to any readily available index. Some managers deliver alpha through timing of beta exposures.

Consider, for example, a sector rotation manager. When does a position represent beta, and when does it represent alpha? Many international managers underweighted Japan for all of the 1990s. Was that a tactical position or just their choice of beta?

A different problem arises in some asset classes like real estate or private equity, where there are no pure beta instruments to facilitate indexing, benchmarking, or hedging.

Mixed (alpha and beta) products pose a danger to investors of paying alpha fees for beta performance. Consider a long-biased equity hedge fund with an average beta of 0.6. In a given year, the equity market rises 16% above the risk-free return, and the hedge fund delivers 11% above the risk-free rate. A standard 1% and 20% fee arrangement would lead to a fee of 3.2%. But we might expect that fund to return 9.6% above risk-free just due to the average beta. That would imply a true alpha of only 1.4%, and a more appropriate fee of 1.28%. Investors in such a product should understand its sources of return, and at a minimum try to pay, on average, alpha fees only for alpha performance.

So you can't always separate alpha from beta. This doesn't mean you will necessarily overpay for such products. It does mean you must carefully analyze what proportions of alpha and beta the product delivers, and pay appropriately for the combination.

Conclusions

We show in Myth 5 that while some investment products offer pure alpha or pure beta, most active products offer a combination not easily separated into those pieces. So, an investor who cares about fees above all else, and who thus only wants to purchase alpha and beta separately, could do so. In fact, some institutional funds do invest completely in beta, and in principle at least, others could invest only in beta products plus equity market-neutral funds.

But for most investors, restricting investments to only separated alpha and beta products is too limiting. There are many talented managers whose insights appear only in mixed alpha and beta products. Whole asset classes with distinct beta, like real estate and private equity, are available almost exclusively as mixed products. The opportunity costs are simply too high to ignore such products.

Our goal has been to focus on the importance of fees. Too often, investors consider fees only after already deciding on an investment product. That's too late.

At the same time, fees should not be the overriding single concern. For example, don't invest only in perfectly separated alpha and beta products just because of the fee transparency.

In the end, we return to the three dimensions of active management: return, risk, and cost. High-fee products are worthwhile if they deliver sufficiently high returns and low risk. Some high-return products have fees that make them poor investments. Investors must analyze fees in this overall context to manage their portfolio appropriately.

References

- Black, Fischer. 2005. "Why and How Does an Investor Diversify?" Quoted in Perry Mehrling, *Fischer Black and the Revolutionary Idea of Finance*. Hoboken, NJ: John Wiley & Sons.
- Brown, Stephen, William N. Goetzmann, and Roger G. Ibbotson. 1999. "Offshore Hedge Funds: Survival and Performance, 1989–1995." *Journal of Business*, vol. 72, no. 1 (January): pp. 91–118.
- Clarke, Roger, Harindra de Silva, and Steven Thorley. 2002. "Portfolio Constraints and the Fundamental Law of Active Management." *Financial Analysts Journal*, vol. 58, no. 5 (September/October): pp. 48–66.
- Ennis, Richard M. 2005. "Are Active Management Fees Too High?" *Financial Analysts Journal*, vol. 61, no. 5 (September/October): pp. 44–51.
- Goetzmann, William N., Jonathan Ingersoll, and Stephen A. Ross. 2003. "High-Water Marks and Hedge Fund Management Contracts." *Journal of Finance*, vol. 58, no. 4 (August): pp. 685–1717.
- Grinold, Richard C. 1989. "The Fundamental Law of Active Management." *The Journal of Portfolio Management*, vol. 15, no. 3 (Spring): pp. 30–37.
- Grinold, Richard C., and Ronald N. Kahn. 2000. *Active Portfolio Management*, 2nd ed. New York: McGraw-Hill.
- Kahn, Ronald N., and J. Scott Shaffer. 2005. "The Surprisingly Small Impact of Asset Growth on Expected Alpha." *The Journal of Portfolio Management*, vol. 32, no. 1 (Fall): pp. 49–60.
- Kneafsey, Kevin. 2003. "Solving the Investor's Problem." *Investment Insights*, vol. 6, no. 5 (August), Barclays Global Investors, San Francisco.
- Leibowitz, Martin L., and Anthony Bova. 2005. "Allocation Betas." *Financial Analysts Journal*, vol. 61, no. 4 (July/August): pp. 70–82.
- Sharpe, William F. 1991. "The Arithmetic of Active Management." *Financial Analysts Journal*, vol. 47, no. 1 (January/February): pp. 7–9.
- Thomas, Lee R. III. 2005. "Engineering an Alpha Engine." *The Journal of Investing*, Winter: pp. 23–32.
- Waring, M. Barton, Duane Whitney, John Pirone, and Charles Castille. 2000. "Optimizing Manager Structure and Budgeting Manager Risk." *The Journal of Portfolio Management*, vol. 26, no. 3 (Spring): pp. 90–104.
- Waring, M. Barton, and Laurence B. Siegel. 2003. "The Dimensions of Active Management." *The Journal of Portfolio Management*, vol. 29, no. 3 (Spring): pp. 35–51.

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