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Alternative Investments Observer

MORNINGSTAR®

The New Wave of Alternative Mutual Funds

Can today's mutual fund alternatives outdo those of the past?

by
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In the past three years, alternative mutual funds have made a splash in the U.S. marketplace. Half of the approximately 200 funds currently in Morningstar's alternative mutual fund categories launched during this time. (See Exhibit 1.) This is the largest and most publicized wave of alternatives from the mutual fund industry during the past quarter century, but it is not the first. Indeed, it is the third wave—with the first two waves falling notably short.

The First on the Scene

The first group of alternative mutual funds arrived in the late 1980s. Stan Druckenmiller, for example, was running long-short mutual funds for Dreyfus before making his name with hedge funds. Other Eighties' funds used options to alter their risk profiles (covered call writing or the infamous portfolio insurance strategies offered by Leland O'Brien Rubinstein Associates, for example) or used strategies that today would be called global macro.

There was even an entire alternative investment category, the short-term multimarket income group, which featured long-short currency strategies.

These days, nearly all these Eighties' funds are kaput, for two major reasons. First, they overpromised on performance. The early funds' marketing materials featured little about the importance of noncorrelated returns, and a whole lot about how they would make more money than competing funds. Investors weren't implored to buy Stan Druckenmiller's fund to fill a slot in a portfolio; they were told to buy because Druckenmiller makes money in bull markets and dodges the bear. Similarly, short-term multimarket income funds were alleged to be better than other bond funds: more yield, less risk. Now, this category of funds doesn't even exist. Even Druckenmiller, one of the lone survivors of the first alternative mutual fund era, has thrown in the towel. In 2010, he announced the shuttering of his asset-management business, as he believes his legendary track record is unsustainable.

Besides overpromising performance, the first group of alternative mutual funds made a second mistake: carrying high expenses, often

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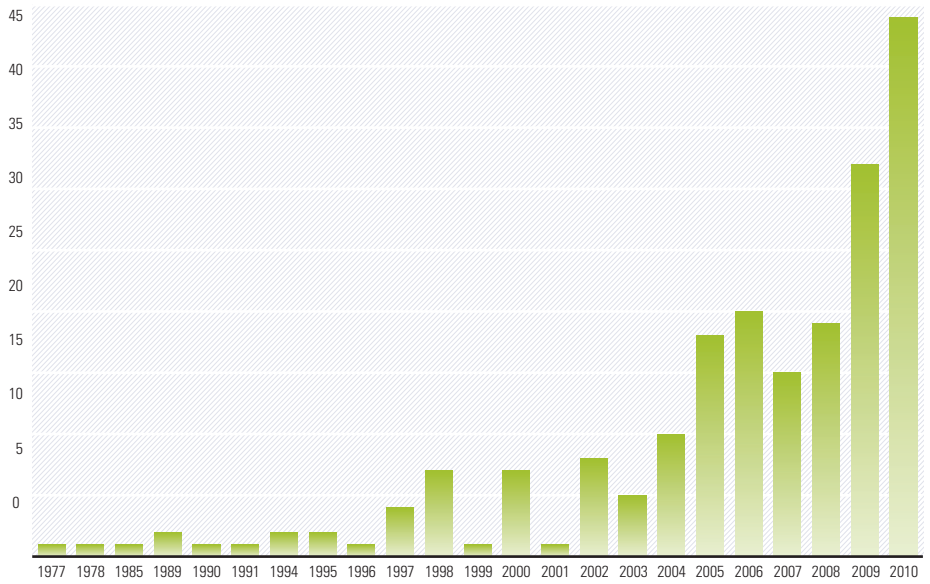
Exhibit 1: New Alternative Mutual Funds Launches



exceeding 2% for the equity funds, and 1.5% for bond funds, not including the costs of shorting. This expense drag was damaging enough in normal markets, but proved particularly deadly when the 1990's bull market ensued and the funds' shorts and/or sales of options curtailed their gains during the rallies. Trailing traditional funds on a gross basis was bad enough; trailing them while being pulled down by expenses was worse yet. By the dawn of the New Millennium, nearly all the first crop of alternative mutual funds had expired.

Round 2: Something for Something

Then came the second wave: market-neutral funds. This strategy was made possible by the 1997 repeal of the "short-short" rule, which effectively barred mutual funds from generating more than 30% of their gross income from securities held less than three months. AXA Rosenberg Double Alpha Market Neutral, Montgomery U.S. Market Neutral, Value Line Hedged Opportunity, and Euclid Market Neutral were among the first to the plate.[1] Market-neutral funds differed from their predecessors by backing off the performance claims and emphasizing noncorrelation. Yes, some market-neutral funds also made brave promises: The label "double alpha" was nothing if not ambitious. But mostly, their sponsors admitted up front that buying market-neutral funds involved a trade-off. There was a price to pay for receiving the downside protection of being market-neutral: If the great bull continued, these unleveraged funds couldn't possibly keep up with even the worst of the pure-stock funds. Owning market-neutral funds didn't mean getting something for nothing. It meant getting something for something.

And in that expectation, the funds delivered. During the technology crash of 2000–02, market-neutral funds performed as intended, with most scoring a profit while stocks plummeted. Unfortunately, though, many of these first market-neutral funds ultimately failed in their mission and closed, because they couldn't couple their attractive habit of behaving differently from other assets with the equally attractive habit of actually making money over the long run.

Even the funds that survived had a tough time. For the decade ended Dec. 31, 2010, market-neutral funds averaged a mere 2.3% in annualized gain. Over that period, short government funds made more money, as did currency funds, bank-loan funds, and several types of stock funds. All right, pretty much everything performed better. While succeeding at protecting capital in 2008 (the typical market-neutral fund finished only 33 basis points in the red), the funds did indeed give up something for something by lagging during the rising years. For example, when stocks rallied for a 28% gain in 2003, none of the new market-neutral funds made as much as 4% on the year. In 2010, only one surpassed 6%.

As with their first-wave alternative mutual fund predecessors, second-wave market-neutral funds had two problems. First and foremost, as market-neutral funds would not profit merely by riding the stock market, they required great decisions by their portfolio managers to make any real money. Second, as with the first wave of alternatives, the funds suffered from high expenses—on average, 2% per annum, even after excluding the costs of shorting.

Those two factors were enough to overwhelm almost any portfolio manager. It's not that the managers of market-neutral funds performed poorly—quite the contrary. With market-neutral funds having a neutral return expectation (so to speak) of Treasury bills minus expenses, and Treasury bills returning only 2.3% over the decade ended Dec. 31, 2010, the funds figured to gain at least 2.3% (Treasuries) minus 2.0% (expenses) for a total of 0.3% per year. However, on average they appreciated 2.3% annually after expenses; that is, a positive contribution of 200 basis points per year per portfolio manager. Even so, market-neutral funds have had a tougher time attracting assets than other long-short funds.

Lessons for Posterity

The experiences of the first two groups of alternative funds suggest lessons for the current batch. To succeed, they need to avoid the errors of their predecessors. That is, they must not claim to beat traditional, long-only funds on raw performance. They are hedges, and they need to be marketed as such. Next, while hedging, or diversifying portfolio risk, is the primary goal, returns must nevertheless be presentable. Matching Treasury bills for a decade is not sufficient. Finally, the funds need to be careful on costs. Expecting portfolio managers to overcome a steep expense ratio with a low-beta fund is asking a lot.

With that in mind, here are a few thoughts about today's alternative categories.

1 *Market-neutral*

Some of the originals still exist, such as J.P. Morgan Research Market Neutral **JPMNX**, and they continue to serve as effective hedges against a declining stock market. Moreover, with short-term interest rates likely to rise over the next few years, the total returns for these funds should increase to more acceptable levels—perhaps as high as 4% to 6%. So, however, will the competition of Treasury bills. Consequently, it will be very difficult indeed for the entire category to thrive. Winning market-neutral funds will be those that succeed at the difficult and uncommon task of delivering high, consistent alphas.

One possibility for achieving that task is through the new wrinkle of adding leverage, although this will be challenging to execute in a mutual fund structure. Credit Suisse is one of the first to consider a retail leveraged market-neutral product, having recently launched the Credit Suisse 2X Merger Arbitrage Liquid Index Exchange Traded Note **CSMA**.

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The case for a small amount of leverage is reasonable. It's true that leverage makes market-neutral funds more volatile, but it won't necessarily harm their noncorrelation, and it does add the potential for stronger performance. As leverage is not a tool that every (or even most) portfolio managers will use well, this is a strategy that should be purchased on track records, as opposed to promises.

2 *Long-short*

The additional flexibility of profiting by betting against overvalued stocks via a long-short fund sounds great in theory, but in practice it has been difficult for managers to execute. Most long-short managers have had difficulty profiting from their short positions. In addition, as long-short funds are generally net long, they tend to be reasonably well correlated with the stock market. Rare is the long-short fund that is able to dodge a severe downturn—only four such funds managed positive returns in 2008.

On the bright side, long-short funds do have a reasonably high beta, enough to permit them to outgain Treasuries after expenses under most market conditions. In that aspect, they are something like balanced funds—a more conservative option for accessing the stock market. Indeed, balanced funds should probably be regarded as their benchmark and prime competition. If a long-short fund can turn a higher profit than a good balanced fund, with similar or less correlation, then it has earned its stripes.

3 *Bear-market*

Bear-market funds certainly deliver on the goal of hedging the "tail" risk events. After that, everything has fallen apart. As with long-short funds, bear-market funds have struggled to identify good short candidates. For this reason, only three active bear-market mutual fund managers currently exist. In 2008, a seemingly good environment for these funds, all three failed to add any value above their negative market exposure. In taking the opposite side of the stock market, these funds have a negative beta—a very large hurdle for long-term return expectations—as well as high volatility, making for a frightening risk-adjusted return measure. Finally, bear-market funds tend to have high expenses.

Thus, bear-market funds have suffered the unpleasant trifecta of negative returns, a large expense drag, and neutral-to-poor manager contributions. As a result, nearly every bear-market fund in Morningstar's mutual fund and hedge fund databases lost money even during the Naughty Oughts. It's difficult to be more optimistic about their futures looking forward.

4 *Absolute-return*

Absolute-return funds are something of an enigma, because unlike the previous three categories of market-neutral, long-short, and bear-market, which indicate how the portfolio is positioned, absolute-return funds consist instead of a claim about performance. How they achieve this claim varies dramatically from fund to fund, with some using hedging techniques, and others opting for tactical allocation mixed with a big dollop of cash or short bonds.

As absolute-return funds also have short-to-nonexistent public records, there's little now to go on aside from the reputation of the sponsoring fund company. In aggregate, a fair guess would be that none of the funds will always post positive returns, most will hedge well against typical stock-market downturns, and very few will hedge fully against a dramatic crash such as 2008. Given their opacity, a challenge for absolute-return funds will be keeping investors' faith during their periods of underperformance.

5 *130/30*

Are the darlings of 2007 still regarded as alternative? In any case, they shouldn't be. Carrying a net 100% long position in equity makes these funds another flavor of a long stock fund. They do, of course, have high betas, meaning that over time they should score fairly high returns. The natural comparison for a 130/30 fund is a stock-market index fund. As 130/30 funds do not offer meaningful diversification, they will live or die in the same fashion as do active long-only funds: by their ability to outgain the indexes.

6 *Managed futures*

Managed futures are perhaps the newest of the new wave of alternatives, quickly gaining recognition and assets from investment advisors and smaller institutions. Along with long government bonds, managed futures were the sole risky asset class to turn a profit in 2008. Thus, managed futures most definitely satisfy the primary requirement of an alternative category, which is that they zig when other portfolios zag. Also in favor of managed futures is the momentum effect, which many managed-futures funds have tapped into over the years.

It's difficult to establish the return expectation for a trading strategy. The primary challenge for managed futures will be to produce a competitive return, as opposed to being an effective hedge. As with absolute-return funds, managed-futures funds also can be opaque and thus must work hard at maintaining their investors when their numbers are bad.

There will be many failures among today's alternative funds—very possibly, not just of individual funds, but of entire categories. However, with most funds being sold appropriately as portfolio solutions, rather than as potential high performers, and with many funds offering a reasonable expectation of competitive returns, the third wave of alternative funds should achieve what the first two did not: a permanent place among mutual fund offerings.

References

1 Ward, Sandra. "Risky Business? Investors may get more than they bargained for from 'market-neutral' funds." *Barron's* (March 30, 1998).

Quant Corner: Is Volatility a Smart Investment?

A look at how volatility fits into traditional balanced portfolios.

by
Bradley Kay
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Volatility seems like the perfect asset to improve investors' returns—negatively correlated to equities and credit risk, large enough swings to make a big difference with only a small allocation, and strongly mean-reverting within a well-established historical band. What's not to love? Buy it low during a bull market, sell high during a bear market, and mint money all the while. Not surprisingly, 15 volatility-tracking U.S. exchange-traded funds and exchange-traded notes have launched since early 2009, and investors have poured more than $4.7 billion into these products over this time.

While Morningstar initially supported the creation of ETFs and ETNs based on volatility back in September 2008, these new investments have sorely disappointed. The now-notorious iPath S&P 500 VIX Short-Term Futures ETN **VXX** lost all but 7% of its original value since its Jan. 29, 2009, inception (through March 2011), while the VIX index itself has salvaged 45% of its value over the same period. At the time of the ETN's launch, Morningstar cautioned against buying volatility at its high, but few could have predicted the extent of the damage caused by extreme contango in the futures contracts used to track the benchmark volatility index. As a result, many investors have written off volatility investments as a dangerous, tactical sport.

But investors should not give up on volatility as a longer-term allocation quite yet. The VIX has recently fallen below 18, which is the median level of implied equity-market volatility since 1990. At today's prices, volatility could once again provide some appealing portfolio insurance. Furthermore, with frequent rebalancing and reasonable investment sizing, even the abysmal performance of **VXX** in the past couple years would have improved the risk/return profile of a traditional 60/40 U.S, equity/bond portfolio. Changing the choice of volatility proxy and assuming more-normal market conditions, an investment in volatility looks very sound.

How Do You Invest in What You Can't See?

First things first: What is stock market volatility, and how can one gain access to it? Most investors are comfortable with the idea of using an index such as the S&P 500 to measure the aggregate market value of U.S. stocks. Virtually all equity indexes rely on the most transparent attribute of any stock—its market price. Every day millions of investors, traders, and speculators make their best guesses as to the worth of tens of thousands of listed companies. These guesses, in the forms of bid and ask prices, average into a market price that provides a collective estimate of the firm's worth. But as an average, the market price ignores another helpful piece of information, which is the certainty of those guesses. Measures of stock market volatility, such as the CBOE Volatility Index, attempt to capture the collective uncertainty of the future prices of stocks in the S&P 500 Index by looking at the options traded on it.

Future gyrations in the underlying stock prices of the S&P 500 Index drive the value of its options, with greater instability making them more valuable. Take, for example, a call option on the S&P 500 with a strike price of 800. If the only possible future values of the index over the next month are 850 or 750, and they are equally likely, that option is worth $25 as there is a one-half chance it will be worth $50 (850 less 800) and one-half chance it will expire worthless (below 800). If volatility rises, such that the possible future values are now 900, 850, 750, or 700 (all still equally likely), the call option is now worth $37.50. The math that goes into valuing actual options is far more complex because of the nearly infinite possible future prices, but it requires an estimate of volatility, or how large future price movements will be. While collecting and aggregating individual traders' estimates of future price movements of

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each stock is impossible, it is possible to reverse-engineer these estimates by calculating the volatility implied in the traded index-option prices.

Every month the Chicago Board Options Exchange combines the price information from dozens of near-term S&P 500 Index options trading at a variety of strike prices with futures prices for the same term to produce the market's own estimate of the S&P 500's volatility over the next month. This estimate of instability in the near term is published as the VIX index and is the most widely followed measure of market sentiment. A VIX of 18, for example, means that over the next 30 days, the stock market is expecting an 18% annualized or 5.2% monthly move up or down.

In 2004, the CBOE Futures Exchange launched the first VIX futures, and in 2006, options on these futures were created. Until the first ETN launched in 2009, however, most investors stayed away from investing in volatility altogether, which would have been a good idea for much of the past two years. But when used wisely, an investment in volatility can reap significant rewards for the long-term investor.

Why Should a Long-Term Investor Care About Volatility?

Predictions of short-term volatility, such as VIX, may not seem very helpful to anyone with a multiyear time horizon for his or her portfolio. After all, the variation of prices in one month will not matter much when you plan to hold your investments for five years or more. But because of the way stock market prices and volatility interact, volatility acts as an excellent form of portfolio insurance.

Greater uncertainty as to any asset's true value substantially lowers its price, even if we can reasonably expect it to have the same value on average. For example, most (rational) investors would pay less for a lottery ticket with a 50/50 shot at a $0 or $200 value versus an asset most certainly worth $100. The same effect occurs in the stock market, which is why volatility spikes and price crashes go hand in hand. During periods of low risk and small market movements, the VIX index typically sits down at lows in the teens. During crashes and extreme dislocations, however, it will immediately skyrocket to values of 40 or higher. This strong negative correlation makes volatility an even more useful hedge than commodities or government bonds, which exhibit near-zero correlations to equities.

Most of the time, though, the VIX index just mildly gyrates. And even after big spikes, it exhibits strong mean reversion, generally returning to an average value somewhere between 20 and 25. Thus, an investment tracking the VIX index will not likely produce any long-term gains because the stock market is unlikely to grow structurally more risky with time. Ultimately, a long volatility position means tying up part of one's portfolio in a nonappreciating asset class in exchange for avoiding the major stock market declines.

The Problem With Tracking Volatility

Unfortunately, the cost of attempting to track volatility is not limited to foregone long-term gains on part of a portfolio. Replicating VIX as a direct investment would require an extremely expensive and high-turnover portfolio of index options. Such as strategy would likely still incur large tracking error because of the difficulty of buying some of the less-liquid option contracts. Alternatively, one can buy futures contracts on the VIX index, which settle for cash at the VIX spot price upon expiration. The biggest drawback to buying VIX futures as a volatility hedge is the negative return incurred by rolling from the current month's expiring contract, which trades at a discount to the next month's contract. The yield on the cash that serves as collateral for the futures helps damp the losses from this phenomenon, known as contango, but not fully.

Contango occurs in VIX futures because most buyers of VIX futures are hedgers who are willing to overpay for protection, and because the value of this protection deteriorates as the futures contract's expiration date approaches. Contango is strongest in the front-month VIX futures, the most liquid and widely used contracts.

The steepness of the contango and, consequently, the magnitude of the negative roll yield exist because there is no way to invest in the spot VIX and, therefore, no arbitrage opportunity to force the futures prices in line with current volatility.

This unfortunately means that VIX futures prices tend to not move as sharply as current volatility. When current volatility is low, futures prices remain higher because of their insurance premium. When current volatility jumps, futures prices stay lower (and the futures curve inverts) to account for expected mean reversion and slightly calmer markets in a few months' time. Short-term contracts (expiring one to three months out) follow spikes in current volatility more closely than the midterm contracts (four to seven months out) and have as strong of a negative correlation with the S&P 500 as current volatility. But a futures position will not appreciate 150%, for example, when VIX spikes from 30 to 80, as it did in September and October of 2008. Midterm futures contracts provide even less exposure to the sharp movements of current volatility, but they also lose much less value to contango over time.

Thus, when considering investments in volatility futures, one must consider various market scenarios and the optimal contracts to provide cheaper insurance.

The Case for Volatility: 2006–2010

Standard & Poor's calculates two indexes tracking rolling VIX futures investments—one invested in short-term contracts and the other

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in midterm contracts. The history of these indexes does not go back very far, but they cover an important period of market returns, and they provide valuable empirical evidence for whether investable volatility proxies could have reduced portfolio risk over the past five years.

Starting with a typical 60/40 portfolio (with the 60% equity stake invested in the S&P 500 and the 40% bond stake in the BarCap US Aggregate Index), we tested a 10% allocation to the wilder S&P 500 VIX Short-Term Futures Index, shrinking the equity and bond portions of the portfolio proportionally to 54% and 36%, respectively. To test the more subdued S&P 500 VIX Mid-Term Futures Index, we included a 20% allocation (a larger stake is necessary to make up for its smaller movements during market crashes) and shrank the equity and bond allocations to 48% and 32% of the portfolio, respectively. Finally, we rebalanced the volatility allocations of all portfolios monthly to capture the quick gains during the market crash and to top up falling positions during quiet markets.

The results show a clear improvement in the risk-adjusted returns of a standard portfolio when adding volatility, and a surprising victory for using midterm futures instead of short-term futures, despite the lower sensitivity to current market movements. The results for all three portfolios during the period of January 2006 through March 2011 are shown in Table 1, and the performance over time is displayed in Exhibit 1. Adding short-term volatility futures to the 60/40 portfolio substantially reduced the standard deviation of returns, but also reduced the absolute size of returns, while still possessing some of the high kurtosis (fat tails) and negative skewness (higher downside risk) of traditional equity-heavy portfolios. In contrast, adding a midterm VIX futures investment increased returns while reducing the portfolio's standard deviation by just as much as the short-term futures, resulting in a doubling of the Sharpe ratio over the historical period. The midterm futures investment also eliminated the negative skewness of the portfolio and reduced kurtosis, making for a much smoother ride than even the reduction in standard deviation would imply.

For Best Results, Just Add Leverage

The benefit of an investment in midterm futures improved in the fourth portfolio we tested, shown in Exhibit 1. This portfolio looked at leveraging the portfolio to add a midterm futures position, resulting in a 60% position in the S&P 500, 40% in the BarCap US Aggregate, 20% in rolling midterm VIX futures, and a 20% short cash position to finance the leverage (with a 3% assumed funding cost). This portfolio carries higher risk than the unleveraged portfolio with a midterm futures investment, but it outperformed the unleveraged portfolio during rising equity markets, when 20% of the portfolio invested in a nonappreciating asset was too much of a drag.

The Case for Volatility: Simulating the Future

It is difficult to empirically support volatility investments using a mere five years of data, even including the biggest market crisis of the past 35 years. The past five years was an unusual time in many ways, but especially in the lack of positive returns to equities over the entire period. Because one of the biggest drawbacks to an investment in volatility is the lack of long-term returns, it is prudent to examine how these simple portfolios perform under more typical market conditions through simulation.

We modeled S&P 500 returns using a flipped log-normal distribution, which exhibits the negative skewness and fatter tails of actual

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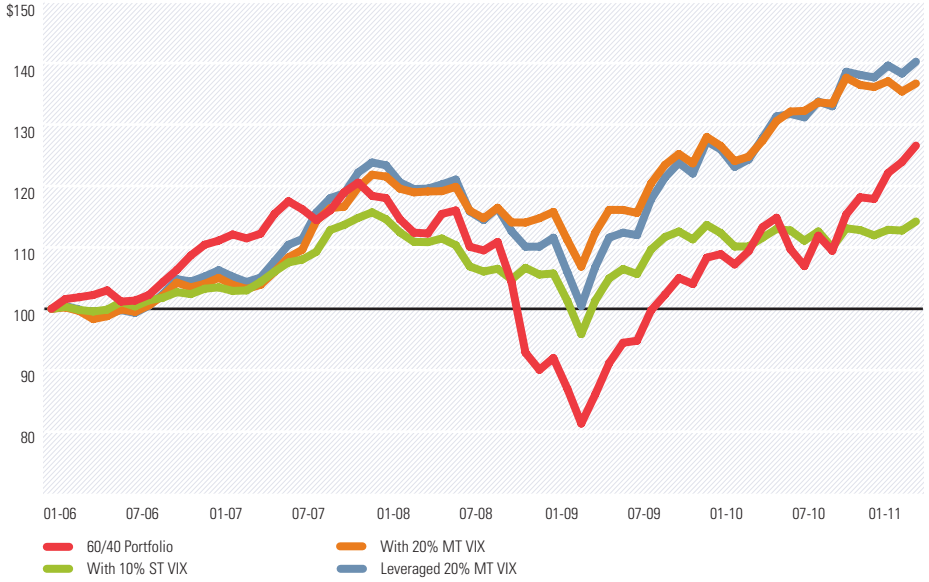
Table 1: Performance of Simple Volatility Portfolios

	Traditional 60/40	With 10% Short-Term VIX Futures	With 20% Short-Term VIX Futures
Return %	4.67	2.61	6.24
Std Deviation %	10.87	6.20	6.33
Skewness	–1.03	–0.14	0.01
Excess Kurtosis	2.11	2.05	0.51
Sharpe Ratio	0.28	0.10	0.65

Values above are for the period January 2006–March 2011
All portfolio statistics are annualized

Exhibit 1: Performance of Volatility Portfolios 2006–2010 (through 03-11)



equity returns along with the assumed standard deviation of 20%. This model assumed average nominal-equity returns of between 8% and 9%, but with very substantial variance because of the high standard deviation and fatter tails associated with equities. Bond returns were modeled independently, with an average return of about 4% to reflect current low long-term yields and a standard deviation of 4%. To build volatility proxies, we looked at VIX performance relative to S&P 500 since 1990, and then built a model of VIX futures returns based off the contemporaneous and lagged changes in the VIX and S&P 500. We also modeled the covariance of residuals in our futures returns to capture the common dependence of short-term and midterm futures returns on the shape of the VIX futures curve at any point in time. Our models allowed us to run hundreds of potential scenarios for VIX futures contract returns in a variety of market environments, which tested the robustness of portfolios incorporating VIX futures better than our limited historical returns possibly could.

We produced 500 sets of 10-year returns for all four assets (S&P 500, BarCap US Aggregate, VIX Short-Term Futures, and VIX Long-Term Futures). The distribution of these returns for each of our four test portfolios across these simulations are displayed in Exhibits 2 through 5.

Planning for the Future

Examining the simulated returns, the average 10-year annualized return of the standard 60/40 portfolio across all 500 scenarios was 7.0%, with a wide 4.3% standard deviation. This means that annual returns for the 10-year period would fall below 2.7% or above 11.3% in one third of all modeled scenarios. Furthermore, the traditional 60/40 portfolio lost money in 16 of the 500 simulations. It's quite difficult to plan for the future with that kind of variance in anticipated returns.

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Exhibit 2: 60/40 Portfolio Simulation

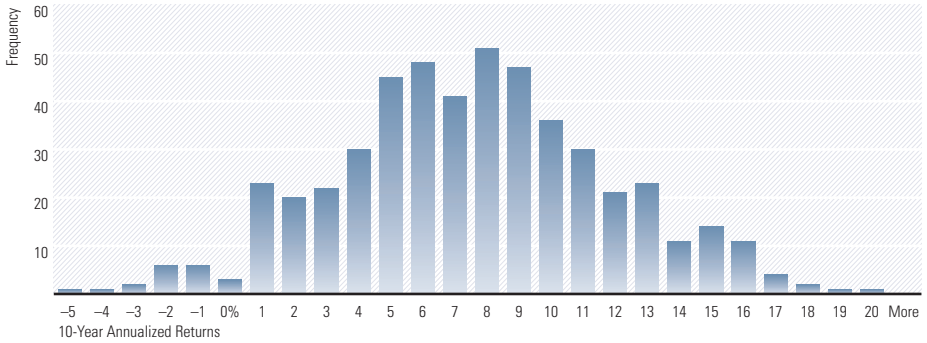


Exhibit 3: Short-Term VIX Futures Simulation

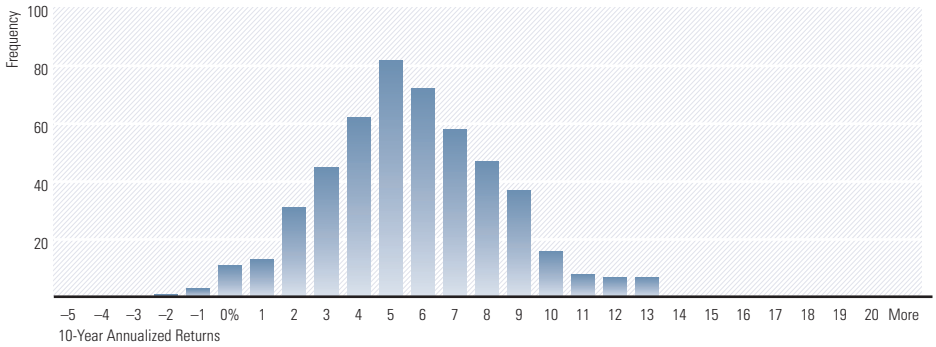


Exhibit 4: Mid-Term VIX Futures Simulation

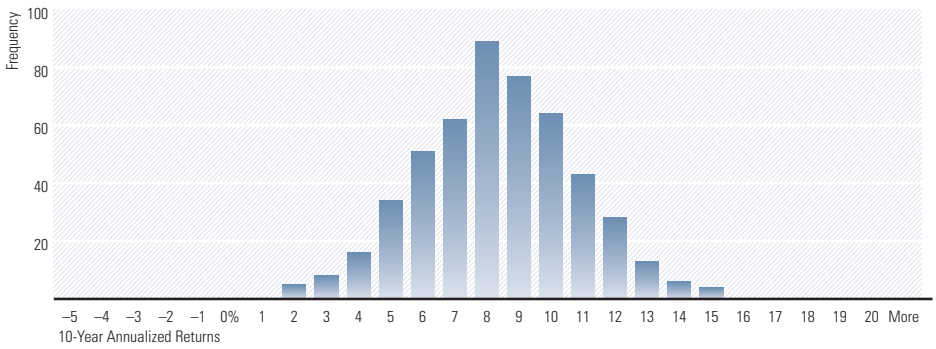
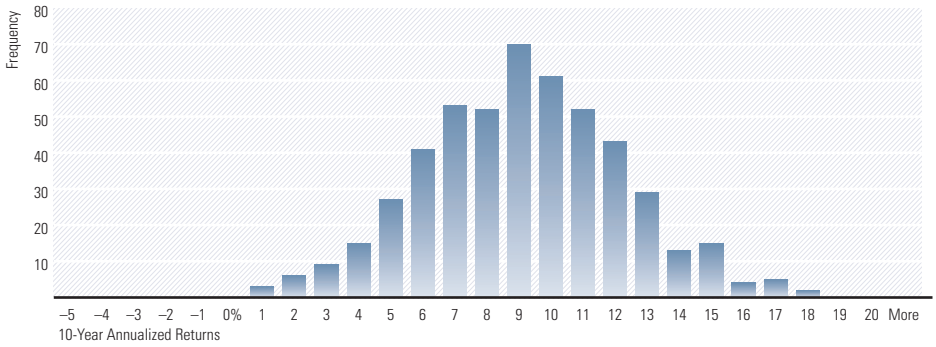


Exhibit 5: Leveraged Mid-Term VIX Futures Simulation



A 10% investment in short-term VIX futures (see Exhibit 3), however, made portfolio returns significantly more reliable, reducing the standard deviation across the 500 simulated portfolio returns by more than a third, but at the same time, it substantially reduced returns, to 5.2% on average. Fortunately, this trade-off is not entirely necessary. A 20% investment in midterm futures contracts (see Exhibit 4) resulted in higher average returns across the 500 scenarios than the 60/40 portfolio (7.8% versus 7.0%), and the standard deviation of these returns was even lower than the short-term VIX futures portfolio (2.5% versus 2.7%). Finally, despite the fact that leverage can be costly and dangerous, the 20% leveraged midterm VIX futures portfolio (See Exhibit 5) produced the highest average 10-year annualized returns (8.7%) of all portfolios, including the 60/40 benchmark, with a lower standard deviation across returns than the traditional portfolio simulation (3.1% versus 4.3%).

This prediction of generating superior returns with minimal risk looks too good to be true and should certainly be taken with a grain of salt. The first reason, and the easiest to quantify, is that our scenario model seemed to slightly overestimate average returns on the midterm futures contracts relative to historical data by about 10 percentage points, as the primary focus of the model was to replicate midterm futures' relationship with spot volatility and short-term futures. Accounting for this effect would reduce the average portfolio return by 2 percentage points (10 percentage point drop in returns multiplied by the 20% weight in the portfolio) to 5.8%. Even so, the distribution of simulated returns is more favorable than either the traditional 60/40 portfolio or the portfolio with a short-term VIX futures allocation. The second reason for questioning the simulated results is that as more investors participate in the midterm futures market, midterm futures contracts may not provide the same benefits relative to other maturities of VIX futures over the next 10 years. This effect will not be large, probably only 20–50 basis points of annualized return, but it is yet another reason to be cautious when extrapolating past performance into the future. Nevertheless, returns still look safer with a strategic position in midterm volatility, strongly suggesting that volatility has a role to play in balanced portfolios.

Four Simple Lessons for Investing in Volatility

Lesson 1

A modest allocation to investable volatility assets **can improve the risk/return profile of an equity-driven portfolio**, even after accounting for the return drag on investable futures strategies versus spot volatility.

Lesson 2

The rapid rises and quickly ensuing falls of volatility **require frequent trading in order to capture its full diversification benefits**. Rebalancing a volatility position quarterly instead of monthly will likely increase the portfolio's risk without any improvement in returns. Only investors who can keep monthly trading costs to a small fraction of total portfolio size should consider volatility as a long-term position.

Lesson 3

Midterm VIX futures (expiring four to seven months out) lie in the "sweet spot" of the curve, providing a superior mix of high returns in market crashes and less deterioration during bull markets. These less-sensitive contracts require a bigger portfolio stake to offset losses in equities, but they **provide the best improvement to expected Sharpe ratio** (relative to other VIX futures contracts) while mitigating the negative skew and fat tails of an equity-heavy portfolio.

Lesson 4

Volatility investments reduce returns as well as risk, and **leverage is necessary to marry equitylike returns with lower portfolio risk**. The leverage necessary to match the expected returns of a traditional 60/40 portfolio is a modest 20%-25% of assets, which is easily accessible using equity and volatility futures. However, this small amount of leverage still could expose investors to financing risk in the case of a crash, as margin demands tend to increase just when most assets have lost value.

Morningstar Product Spotlight: Morningstar Estimated Performance for Hedge Funds

Bringing transparency to private hedge funds.

by
Mallory Horejs
Alternative Investments Analyst

Commercial databases such as Morningstar's have done much to increase transparency in the hedge fund industry. But the voluntary nature of self-reporting still prevents investors from understanding the complete picture. Hedge fund databases often fail to capture the best- and worst-performing funds, and historical track records often contain gaps in performance as managers cease and later resume reporting. Using the filings of registered funds of hedge funds, Morningstar has developed a partial solution to this pervasive problem.

The new Morningstar estimated performance methodology estimates the returns of more than 1,700 hedge funds, many of which have never reported to a commercial database. This includes more than 85% of the industry's largest funds, many of which do not typically self-report and whose performance would be otherwise inaccessible. When used as a supplement to self-reported returns, Morningstar estimated performance provides a fuller and more representative view of hedge fund industry performance.

Registered Funds of Funds

Since 2004, a small subset of funds of hedge funds has chosen to register with the SEC under the Investment Company Act of 1940, primarily for two reasons. First, registered funds of funds are largely exempt from the fiduciary responsibilities required under the Employee Retirement Income Security Act of 1974, or ERISA. Under the 1940 Act's "25% rule," unregistered hedge funds that manage more than 25% of ERISA-regulated assets may be deemed an ERISA fiduciary, a designation that would constrain the managers' use of leverage, diversification, and liquidity in its investments. Second, and most important, registering with the SEC allows these funds access to an unlimited number of investors as well as the right to actively market and distribute their funds through investment advisors.[1]

Once registered, these funds of hedge funds must comply with all SEC filing requirements, including the funds' semiannual and annual reports (forms N-CSRS and N-CSR) and quarterly holdings statements (Form N-Q). These quarterly filings must be submitted within 60 days of quarter-end and must disclose the fund of fund's portfolio of investments,

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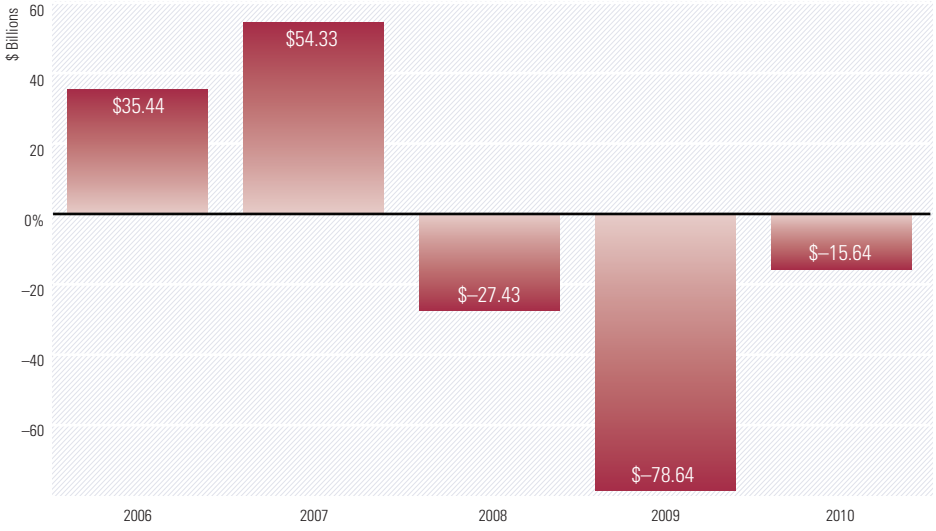
Exhibit 1: Hedge Fund of Fund Flows in Morningstar's Database



including the name of each underlying hedge fund, the cost basis of the position, and the current market value of the position. Looking at filings through Sept. 30, 2010, Morningstar has identified a total of 80 unique registered funds of funds from which it can glean holdings and quarterly performance information. Of these 80 funds, 35 have deregistered at some point since 2004, allowing for the collection of only historical information, leaving 45 active funds. While this sample is seemingly small, it is large enough to calculate estimated performance of greater than 1,700 underlying hedge funds. Furthermore, the sample of active registered funds of funds is likely to grow. Traditional hedge funds of funds are steadily leaking assets (see Exhibit 1), and registering as 1940 Act funds can help diversify and grow their asset base.

Estimated Performance Calculation Methodology

To calculate the estimated quarterly returns of the underlying hedge fund managers, Morningstar looks at the change in current market value of each hedge fund investment between two consecutive quarterly filing periods. The traditional measure of return, however, ignores the timing of any cash flows (beginning-of-period, midperiod, or end-of-period). Therefore, Morningstar only calculates estimated performance when the cost basis of a holding remains constant across filings (that is, no cash flows). Excluding holdings with uncertain cash flows increases the overall accuracy of the data set.

As the 45 active registered funds hold many of the same underlying hedge fund investments, one underlying fund can have multiple estimated performance observations. In this case, the median of the observations is reported as the estimated performance. For example, Anchorage Capital Partners, LP, was held by three registered funds between June 30, 2010, and Sept. 30, 2010: Hatteras Master Fund, LP; Robeco-Sage Multi-Strategy Master Fund, LLC; and Excelsior Multi-Strategy Hedge Fund of Funds Master Fund LLC. These funds experienced quarterly returns of 1.62%, 1.69%, and 1.60%, respectively. Morningstar reports the median of the observations, 1.62%, as the estimated performance, although the database also presents each individual performance observation and the name of the registered fund of funds it came from.

The Benefits of Morningstar Estimated Performance

Using this new methodology, Morningstar can calculate estimated quarterly returns for many hedge funds that have never before reported to the Morningstar database. Overall, the registered fund of funds holdings data has generated 11,286 total unique quarterly estimated performance returns between September 2004 (the earliest available N-Q/N-CSR filing date) and September 2010. This doesn't amount to multiple years of history for all 1,700 underlying hedge funds, but investors are much less in the dark than before.

Because of the voluntary nature of hedge fund disclosure, research shows that databases of self-reported hedge fund returns are often missing the industry's top and bottom performers, depriving investors of a clear view of industry performance, as well as understating the overall risks involved in hedge fund investing. In choosing whether to report to a commercial database, hedge funds face a trade-off between the costs of disclosure (potential regulatory scrutiny, for example) and the gains of raising additional capital through marketing the fund's returns. Funds that have already raised sufficient capital or that simply view the costs of disclosing their performance or strategy as too high may choose not to report.[2] Additionally, funds with poor past performance are unlikely to see much benefit in advertising their returns and subsequently opt out of reporting to a database.

Delisting was prevalent in the Morningstar's hedge fund database throughout 2008, as 1,782 hedge funds dropped out because of liquidation, manager requests for removal, or delinquent performance updating. This marked a 170% increase from 2007, when only 661 funds disappeared. Estimated performance now allows Morningstar's database to capture the returns of some of these delisted funds. One example is King Street Capital LP, which stopped reporting to the database in February 2010. As registered hedge funds of funds are still invested in this manager, Morningstar's database still contains a reliable and continuous stream of estimated performance that can be used to evaluate the fund.

Several studies have shown that about 40% of the industry's largest single-manager hedge funds do not report to any major databases.[3] The lack of comprehensive performance data on the industry's largest and most well-known funds proves to be a constant frustration for investors. While Morningstar's coverage of self-reported monthly returns for this group falls about in line with its competitors, including Morningstar estimated performance figures increases our coverage substantially, to 86% of the largest hedge funds.[4] In providing credible quarterly returns for the industry's leading hedge fund firms, such as Paulson & Co., D.E. Shaw, and SAC Capital Advisors, that would be otherwise inaccessible, this data set brings unique value to investors.

Furthermore, estimated performance reflects the actual experience of specific investors, the registered fund of funds making these public filings. In contrast, a hedge fund's self-reported returns data can diverge from the actual investors' experience as a result of holding periods, cash flow timing, fees, or calculation methods. In most cases, the differences between self-reported composite returns and estimated performance figures are negligible. For estimated performance calculated through

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Exhibit 2: Estimated Performance and Self-Reported Returns of Hedge Fund A

Date	Advantage Advisers Whistler Fund, LLC	Defenders Multi-Strategy Hedge Fund, LLC	Mellon Optima L/S Strategy Fund, LLC	PNC Long-Short Fund, LLC	Morningstar Estimated Performance Median	Self-Reported Return	Divergence
12-31-2004	—	9.59	—	9.20	9.39	9.06	0.33
03-31-2005	—	–0.07	—	–0.07	–0.07	–0.14	0.08
06-30-2005	—	0.68	—	0.69	0.69	0.73	0.05
09-30-2005	—	8.02	—	8.10	8.06	8.12	0.06
12-31-2005	—		6.37	6.69	6.53	6.72	0.19
03-31-2006	—	7.20	7.15	7.23	7.20	7.05	0.15
06-30-2006	—	—	—	–3.51	–3.51	–3.72	0.21
09-30-2006	—	—	—	1.07	1.07	1.23	0.16
12-31-2006	8.47		8.43	9.21	8.47	8.79	0.31
03-31-2007	3.93	4.33	4.10	4.22	4.16	4.05	0.11
06-30-2007	6.35		6.39	6.34	6.35	6.27	0.08
09-30-2007	1.07	1.04	1.11	—	1.07	1.02	0.05
12-31-2007	2.59	2.52	2.51	2.54	2.53	2.33	0.20
03-31-2008	—	–6.08	–6.03	–6.07	–6.07	–6.15	0.07
06-30-2008	—	2.11	2.11	2.17	2.11	2.05	0.06
09-30-2008	–8.40	–7.94	–7.99	—	–7.99	–8.51	0.52
12-31-2008	–12.46	—	–12.46	—	–12.46	–11.92	0.54
03-31-2009	1.74	—	1.74	—	1.74	1.69	0.05
06-30-2009	14.57	—	14.57	—	14.57	14.63	0.06
09-30-2009	7.05	—	7.05	6.94	7.05	7.04	0.01
12-31-2009	3.92	—	3.92	—	3.92	3.87	0.04
03-31-2010	1.90	—	—	1.93	1.91	1.89	0.03
06-30-2010	–2.28	—	–2.17	–2.28	–2.28	–2.31	0.03
09-30-2010	3.60	—	3.49	—	3.54	3.58	0.03

the third quarter of 2010, the median divergence between self-reported returns and estimated performance was only about 6 basis points. Moreover, 75% of the estimated return calculations varied from the self-reported returns by less than 23 basis points. These tight comparison statistics demonstrate that Morningstar estimated performance can be a credible proxy when self-reported returns are not available.

In cases where the disparity is great, however, current and potential investors should investigate further—perhaps the underlying hedge fund is giving preferential treatment to other investors, or perhaps the hedge fund is masking the performance of a side pocket. In this way, investors can use estimated performance as an investigative tool.

Estimated Performance in Practice

Exhibit 2 demonstrates the historical quarterly estimated performance calculation for one hedge fund, Hedge Fund A. This fund self-reports to the Morningstar database and, in addition, four registered hedge fund of funds have maintained underlying investments in Hedge Fund A over the past six years. These funds of hedge funds are Advantage Advisers Whistler Fund, LLC; Defenders Multi-Strategy Hedge Fund, LLC (now deregistered); Mellon Optima L/S Strategy Fund, LLC; and PNC Long-Short Fund LLC. Although the estimated performance track record for each of these four registered funds of funds has several holes (largely because of changing cost basis), aggregating the observations across the four track records results in a continuous six-year estimated quarterly return stream that can be compared with the self-reported returns. The divergence between self-reported returns and Morningstar estimated performance every quarter is quite small, with a median divergence of 7 basis points and a range of 53 basis points over 24 quarters.

How to Gain Access to Morningstar Estimated Performance

Morningstar clients have several means by which to gain access to this unique data set of estimated hedge fund performance. The raw underlying holdings information for the individual registered funds of hedge funds, as well as the calculated estimated performance figures, can be viewed through a licensed data feed. In the coming months this data will also become available through Morningstar® Direct℠, our flagship product for institutional investors. Self-reported hedge fund returns have been available in Morningstar Direct for a number of years, and soon hedge fund investors will be able to compare estimated performance with these self-reported returns. Morningstar estimated performance provides investors with a more comprehensive view of hedge fund returns and brings an opaque industry one step closer to transparency.

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1 Aiken, Adam L., Christopher P. Clifford, and Jesse Ellis. "Out of the Dark: Hedge Fund Reporting Biases and Commercial Database." March 17, 2010.

2 Ibid.

3 Fung, William, and David A. Hsieh. "Measurement Biases in Hedge Fund Performance Data: An Update." *Financial Analysts Journal* 65.3 (2009): 36. ProQuest. Web. March 6, 2011.

4 Allen, Katrina D. "Billion Dollar Club." *AR Absolute Return*. Sept. 30, 2010.

Industry Trends: Alternative Mutual Funds

New absolute-return unconstrained bond funds.

by
Nadia Papagiannis, CFA
Alternative Investments Strategist

Alternative Mutual Funds

A new trend in absolute-return mutual funds became apparent in the new year—unconstrained bond funds. Legg Mason BW Absolute Return Opportunities **LROAX**, which launched in late February, is the latest edition of these supposedly "go-anywhere" fixed-income strategies. Advised by Brandywine Global Investment Management (which also subadvises part of the new American Beacon Absolute Strategies Fund currently in registration), this fund invests in global credit, interest rates, and currencies and can employ tools such as shorting and hedging.

The goal of many of these unconstrained bond funds is to outperform traditional bond funds in adverse market conditions, such rising interest rates. The term "bond" is missing from the name, however, because of the heavy use of derivatives. The "absolute-return" moniker refers to the funds' nontraditional benchmarks, typically LIBOR plus a few hundred basis points. The most successful of these absolute-return unconstrained bond funds is Eaton Vance Global Macro Absolute Return **EAGMX**, closed to new investors after raising more than $7 billion in assets in less than four years. But at least eight more of these newfangled funds have already surfaced, and more are on the way.

As with any absolute-return fund, investors should be wary of what they are investing in. Even though the LIBOR or Treasury-bill benchmarks suggest a beta-neutral strategy, some of these funds, such as Western Asset Absolute Return **WAARX**, exhibit positive betas to global credit and interest rates, which have helped to boost returns in the past two years. Furthermore, these absolute-return offerings often cost more than traditional bond funds. Finally, these funds often distribute annually, and may not be suitable for investors with regular income goals.

Besides unconstrained bond funds, another trend in alternative investing solidified in the first quarter of 2011—the multistrategy, one-stop alternative shop. 361 Absolute Alpha **AAFAX**, for example, opened at the start of the new year. Run by hedge fund of fund managers Brian Cunningham and Tom Florence, 361 Absolute Alpha offers a mix of outside managers and strategies. True to the fund's name, however, management hedges out the fund's beta risk in an attempt to isolate alpha or absolute return. With a 2.64% prospectus net expense ratio, this fund is expensive relative to other long-short funds.

Alpha Capital Management introduced two multistrategy alternative funds in January. Both Alpha Defensive Growth **ACDEX** and Alpha Opportunistic Growth **ACOPX** invest in other mutual funds, ETFs, and closed-end funds. Alpha Defensive Growth focuses on lower-volatility strategies, while its sister fund allocates to more risky strategies. Offered at 2.4% and 2.7% prospectus net expense ratios, these funds are no steal, but its management fee is cheaper than most multimanager competitors. Manager Brad Alford advised the Duke University endowment's alternative allocation for five years.

Finally, despite growing controversy surrounding the regulation of mutual funds trading futures contracts, the managed futures trend continues. In March 2011, Knollwood Investment Advisors launched Grant Park Managed Futures Strategy **GPFAX**, a mutual fund of commodity trading advisors. In January, the Commodities Futures Trading Commission proposed rules revoking an exemption that allows registered investment companies to circumvent registration as commodity pool operators. The CFTC cited some issues, such as funds of funds which charge but do not disclose underlying performance fees. The ruling, however, will apply to more than just managed futures mutual funds. The window for public comments closed on April 12.

Fund Reports

Eaton Vance Global Macro Absolute Return Advantage

by **Nadia Papagiannis,** CFA

Advisor
Eaton Vance Investment Managers

Advisor Location
Boston, Massachusetts

Assets Under Management
$617 million (fund)

Inception Date
Aug. 31, 2010

Investment Type
Mutual fund

Morningstar Category
World bond

Management
The global fixed-income team, headed by Mark Venezia, manages this fund, along with its predecessor, Eaton Vance Global Macro Absolute Return **EGRAX**. Venezia has managed Eaton Vance Strategic Income **EVSGX** since its 1990 inception. John Baur, Michael Cirami, and Eric Stein actively manage investments in the portfolio according to their areas of expertise. A team of five analysts, one quantitative risk manager, eight traders, and eight compliance personnel support the portfolio managers.

Strategy

This long/short sovereign debt fund follows no benchmark and is intended to exhibit low correlations to a traditional portfolio's exposures to U.S. interest rates, U.S. credit, the euro/U.S. dollar exchange rate, and global equities. The portfolio takes long exposure positions in local-currency and U.S. dollar-denominated sovereign bonds or bills, while long or short positions are taken in currency forwards, spot currency, credit default swaps, and futures contracts. The fund may occasionally take foreign corporate risk, for example by shorting Eastern European banks, but only as another way to trade sovereign debt risk. This new fund differs from the recently closed $7.7 billion Eaton Vance Global Macro Absolute Return fund in several aspects: It takes larger positions; it avoids investments in smaller, less liquid markets such as Zambia or Lebanon; the fund's collateral is not invested in agency mortgage-backed securities; the fund's equity exposure is not capped (although management does not expect to take on more than 10% stock exposure); and the fund only distributes annually.

Process

Management builds its portfolio from the bottom-up, using macroeconomic and political data. The three portfolio managers generate investment ideas by region. John Baur leads the Latin America and commodity trades; Michael Cirami focuses on eastern Europe, Africa, central Asia, and the Middle East; and Eric Stein is responsible for Asia, U.S. dollar, and Western Europe. The three portfolio managers look at asset prices in all asset classes across countries to identify anomalies. For example, when Egypt launched dollar-denominated debt (thereby creating a credit default swap market) in April 2010, management believed these bonds were trading at too narrow of a spread to compensate for the inherent political risk. Management bought the currency but shorted the credit through CDS in the original fund, as it maintains that the currency reacts to events more slowly than does the credit. In January 2011, this fund took a long position in the Croatian kuna-denominated euro-linked Treasuries, as these traded at a wider spread (to its equivalent tenor CDS) than the five-year bonds, which are purchased by local banks. The three portfolio managers submit their trades to Venezia, who approves both the position and its size in the portfolio. Venezia holds a detailed portfolio meeting every Tuesday. The entire research team meets to discuss investment ideas on Thursday, and the portfolio managers meet on Friday to arrive at any decisions. Venezia also contributes investment ideas and initiates his own trades.

Risk Management

The goal of the fund is to maintain a risk-adjusted return, as measured by the Sharpe ratio of at least 1.0, with a low beta and correlation to traditional portfolios, over a rolling 12-month period. Since its September 2010 inception, the new fund has fallen short of its Sharpe ratio goal (0.4 using weekly data through Feb. 26), but it has exhibited low betas and correlations to global stock and bond indexes. Besides monitoring Sharpe ratio, the firm uses risk metrics to stress test the portfolio according to a variety of potential market conditions, including interest-rate, exchange-rate, and credit and equity market shocks. The firm's risk-management and investment-analytics team produces a weekly risk report, which the management team reviews to ensure the portfolio is avoiding any unintended risk exposures. Venezia may hedge at the portfolio level or limit the positions of the three portfolio managers. Management also monitors the duration of the collateral from derivative positions.

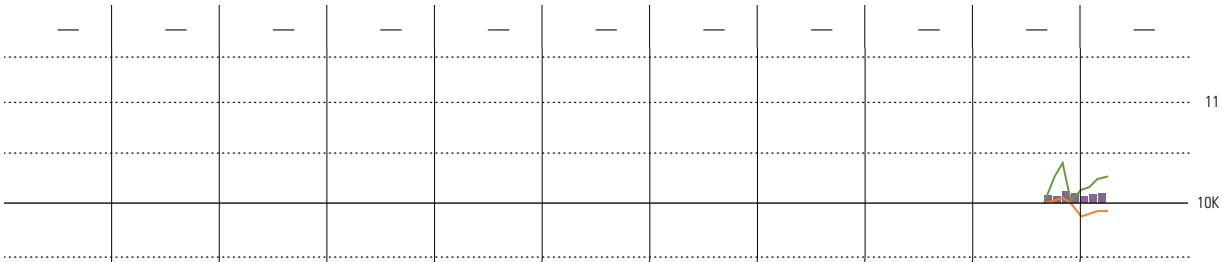
Eaton Vance Glbl Macro Abs Ret Advtg A EGRAX

Performance

Morningstar Rating™ —

Morningstar Category™ US OE World Bond

Net Assets (Mil) 237.19(USD)



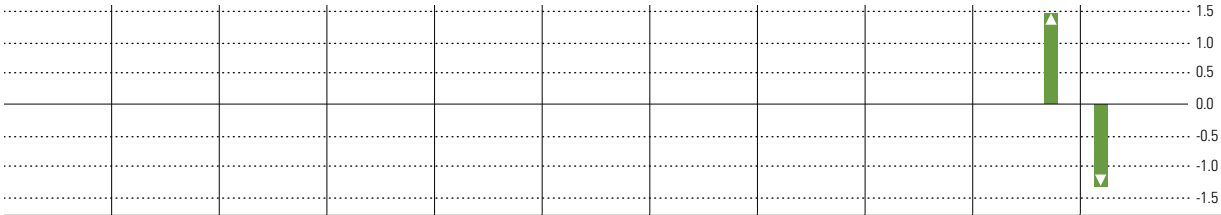
Investment Style

Growth of 10K

- Fund
- BarCap US Agg Bond TR USD
- Category

Quartile Rank (cat) (within category)

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	3/2011	**History**
—	—	—	—	—	—	—	—	—	—	0.00	Total Return %
—	—	—	—	—	—	—	—	—	—	-0.42	+/- BarC...
—	—	—	—	—	—	—	—	—	—	-1.31	+/- Category
—	—	—	—	—	—	—	—	—	—	—	Income $
—	—	—	—	—	—	—	—	—	0.02	—	Capital Gains $
—	—	—	—	—	—	—	—	—	133	237	Net Assets $Mil



Relative Fund Quarterly vs. Fund Category

- Quarterly Fund Relative Return
- Category Baseline
- Best Qtr Performance
- Worst Qtr Performance

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	**Qtrly Total Returns**
—	—	—	—	—	—	—	—	—	—	0.00	1st Quarter
—	—	—	—	—	—	—	—	—	—	—	2nd Quarter
—	—	—	—	—	—	—	—	—	—	—	3rd Quarter
—	—	—	—	—	—	—	—	—	0.17	—	4th Quarter

Trailing Total Returns 4/15/2011

	Trailing Ret %	+/-Index ‡	+/- Cat	% Rnk Cat	*Std Ret %
YTD	0.89	-0.05	-1.52	82	0.00
1 Mo	1.80	1.68	0.68	19	0.10
3 Mo	0.40	-0.42	-2.29	87	0.00
12 Mo	—	—	—	—	—
3 Yr Annualized	—	—	—	—	—
5 Yr Annualized	—	—	—	—	—
10 Yr Annualized	—	—	—	—	—
15 Yr Annualized	—	—	—	—	—
Inception	1.78	2.03	-2.13	—	0.88

*Quarter-end data through 3/31/2011

‡BarCap US Agg Bond TR USD

Tax Analysis

	3-Yr Avg %	5-Yr Avg %	10-Yr Avg %
Pretax Return	—	—	—
Tax-Adjusted Return	—	—	—
% Rank in Category	—	—	—
Tax Cost Ratio	—	—	—

Potential Cap Gains Exp % 0.14

Ratings and Risk —

	Overall	3 Yr	5 Yr	10 Yr
Morningstar Rating™	—	—	—	—
Number of Funds Rated	—	—	—	—
Morningstar Risk™	—	—	—	—
Morningstar Return™	—	—	—	—

Volatility Measurements	3 Yr	5 Yr	10 Yr
Standard Deviation	—	—	—
Mean	—	—	—
Sharpe Ratio	—	—	—

Bear Market Decile Rank (5 Yr) —

Modern Portfolio Theory Statistics	Standard Index BarCap US Agg Bond TR USD	Best Fit Index
R-Squared	—	—
Beta	—	—
Alpha	—	—

Trailing 3-Yr through 3/31/2011

Fund Reports

LS Opportunity Fund

by **Nadia Papagiannis,** CFA

Advisor
Long Short Advisors LLC

Advisor Location
Philadelphia, Pennsylvania

Assets Under Management
$17.5 million (fund)

Inception Date
Sept. 29, 2010

Investment Type
Mutual fund

Morningstar Category
Long-short

Management
This fund is advised by Long Short Advisors and is subadvised by Independence Capital Asset Partners, run by Jim Hillary. Hillary cofounded Marsico Funds in 1997 with Tom Marsico. Hillary left in 2004 to start ICAP, a long/short equity hedge fund manager. Dane Czaplicki, director of research for Long Short Advisors, created the Long Short Opportunity Fund specifically for nonaccredited investors to gain access to ICAP.

Strategy

This fund follows a bottom-up, primarily U.S., primarily mid- to large-capitalization growth equity strategy. Management attempts to diversify the fund by sector, engaging in long and short positions in at least eight of the 10 sectors. The fund will typically hold 40 to 60 stocks long and 30 to 50 stocks short. The fund aims for a 50% to 75% net stock exposure, typically with 80% to 100% gross long and 30% to 40% gross short. Long and short positions are generally directional bets, although management also engages in pair trading. The portfolio typically holds only one or two large positions, and the top 10 stocks typically represent about 35% of assets. The top 10 to 20 holdings are long-term in nature, as management attempts to be tax-efficient, while smaller positions experience higher turnover. Management can use options, futures, and ETFs to hedge or to temporarily invest cash, as management generally avoids explicit sector bets or macroeconomic calls. From time to time, however, management may incorporate macroeconomic trades, such as shorting the 20-year Treasury or placing a collar on the S&P 500.

Process

Most of manager Jim Hillary's four senior analysts and four junior analysts act as generalists, though some have specific industry experience in health care and biotech. Although Hillary runs the portfolio, he allows his most senior analysts to manage small positions, in an effort to train them to become portfolio managers. Hillary and his analysts garner investment ideas from sources such as company visits and industry networks, as well as some quantitative screens. The analysts establish price targets for stocks based on discounted cash-flow models, but analysts must also identify catalysts that will drive a stock to its targeted valuation. Holding periods are relatively long-term for the top 20 core positions, but management will trade around positions to manage volatility.

Risk Management

Jim Hillary is responsible for risk management, a role in which he monitors the portfolio for sector, industry, and broad-market exposure. Hillary does not adhere to strict parameters, except that initial positions must be no more than 10% of the portfolio. Management actively sizes long or short positions based on the gap between current prices and valuation targets, taking profits as the position reaches its target. Hillary does not necessarily curb positions that have generated losses. Rather, Hillary reduces or eliminates positions if they have reached their price targets, if the underlying investment thesis changes, or if the team finds better investment opportunities. Although the firm generally avoids macroeconomic bets, management reserves the right to significantly reduce exposure in times of crisis.

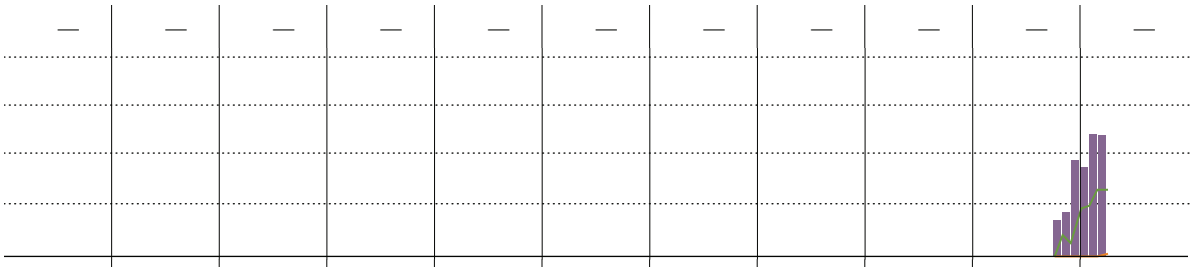
LS Opportunity LSOFX

Performance

Morningstar Rating™ —

Morningstar Category™ US OE Long-Short

Net Assets (Mil) 19.28(USD)



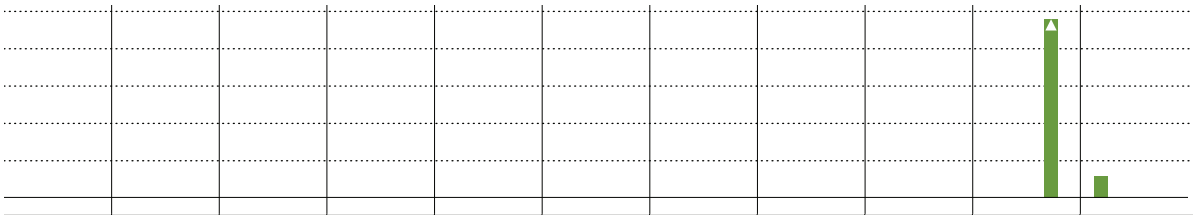
Investment Style

Growth of 10K

- Fund
- BofAML USD LIBOR 3 Mon CM
- Category

Quartile Rank (cat) (within category)

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	3/2011	**History**
—	—	—	—	—	—	—	—	—	—	2.29	Total Return %
—	—	—	—	—	—	—	—	—	—	2.21	+/- BofA...
—	—	—	—	—	—	—	—	—	—	0.58	+/- Category
—	—	—	—	—	—	—	—	—	—	—	Income $
—	—	—	—	—	—	—	—	—	—	—	Capital Gains $
—	—	—	—	—	—	—	—	—	12	19	Net Assets $Mil



Relative Fund Quarterly vs. Fund Category

- Quarterly Fund Relative Return
- Category Baseline
- △ Best Qtr Performance
- ▽ Worst Qtr Performance

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	**Qtrly Total Returns**
—	—	—	—	—	—	—	—	—	—	2.29	1st Quarter
—	—	—	—	—	—	—	—	—	—	—	2nd Quarter
—	—	—	—	—	—	—	—	—	—	—	3rd Quarter
—	—	—	—	—	—	—	—	—	9.20	—	4th Quarter

Trailing Total Returns 4/15/2011

	Trailing Ret %	+/-Index ‡	+/- Cat	% Rnk Cat	*Std Ret %
YTD	2.93	2.83	0.96	30	2.29
1 Mo	4.07	4.04	1.93	11	-0.09
3 Mo	1.08	1.00	-0.13	48	2.29
12 Mo	—	—	—	—	—
3 Yr Annualized	—	—	—	—	—
5 Yr Annualized	—	—	—	—	—
10 Yr Annualized	—	—	—	—	—
15 Yr Annualized	—	—	—	—	—
Inception	12.40	12.23	6.40	—	11.70

*Quarter-end data through 3/31/2011

‡BofAML USD LIBOR 3 Mon CM

Tax Analysis

	3-Yr Avg %	5-Yr Avg %	10-Yr Avg %
Pretax Return	—	—	—
Tax-Adjusted Return	—	—	—
% Rank in Category	—	—	—
Tax Cost Ratio	—	—	—

Potential Cap Gains Exp % —

Ratings and Risk —

	Overall	3 Yr	5 Yr	10 Yr
Morningstar Rating™	—	—	—	—
Number of Funds Rated	—	—	—	—
Morningstar Risk™	—	—	—	—
Morningstar Return™	—	—	—	—

Volatility Measurements	3 Yr	5 Yr	10 Yr
Standard Deviation	—	—	—
Mean	—	—	—
Sharpe Ratio	—	—	—

Bear Market Decile Rank (5 Yr) —

Modern Portfolio Theory Statistics	Standard Index BofAML USD LIBOR 3 Mon CM	Best Fit Index
R-Squared	—	—
Beta	—	—
Alpha	—	—

Trailing 3-Yr through 3/31/2011

Fund Reports

Oppenheimer Currency Opportunities

by **Nadia Papagiannis,** CFA

Advisor
OppenheimerFunds

Advisor Location
New York, New York

Assets Under Management
$18.3 million (fund)

Inception Date
June 30, 2010

Investment Type
Mutual fund

Morningstar Category
Currency

Management
Alessio de Longis runs this fund. He joined OppenheimerFunds in 2004 as part of the global-debt team, headed by Sara Zervos and Arthur Steinmetz. He runs some of the same currency strategies as in the Oppenheimer Global Strategic Income **OPSIX** and the Oppenheimer International Bond funds **OIBAX**. De Longis is supported by nine other analysts and the trading staff of the global-debt team.

Strategy

This systematically managed fund is intended to provide a non-U.S. dollar currency exposure to the portfolio. Rather than using the standard U.S. dollar spot index, or DXY, as a benchmark, management references the J.P. Morgan U.S. Dollar Tradeable Index as a benchmark, as management prefers the latter index's weighting scheme. Management attempts to outperform the index by investing in currencies inside and outside its benchmark according to nine different strategies. These "alpha" strategies include carry, momentum, and valuation strategies as well as some nontraditional strategies relating to fundamental macroeconomic drivers such as commodity prices, capital and trade flows, the global business cycle, and interest-rate differentials. Some strategies involve non-U.S. dollar pairs. All strategies are automated, and the signals are combined to determine a net currency position in the fund. Not all strategies generate buy or sell signals all of the time, and management seeks to combine uncorrelated strategies.

Process

Even though this fund runs systematically, most of its investment strategies are fundamental in nature rather than technical or price-driven. The management team researches strategies beginning with a macroeconomic hypothesis and then tests the hypothesis using historical data. For example, de Longis believes that the impact of a shock in energy prices would affect currencies differently, depending on how energy-efficient an economy is. Canada is a net exporter of energy, but its economy is very energy-intense, using more energy per dollar of the gross domestic product than the United States, a net importer of energy. Switzerland is the most energy-efficient country. Therefore, the CAD should underperform the CHF in periods of oil shocks. A strategy is deemed robust if it works over multiple time frames and with minor specification changes (different measures of energy-price momentum, for example).

Risk Management

In terms of explicit risk parameters, this fund aims to limit its benchmark tracking error to 3% annualized. Also, one currency may not comprise more than 35% of the fund, although such a large weighting is likely limited to the euro, which is 20% of the benchmark index. Implicitly, some of the rules-based investment strategies incorporate risk management by switching on or off according to the macroeconomic environment. For example, the carry trade underperforms during periods of risk aversion. Therefore, management has devised measures of risk aversion (U.S. stocks rising and outperforming emerging-markets stocks, for example) that temporarily mute the strategy. Counterparty credit risk is also of concern to the management team, which meets quarterly to rank counterparties on its forward currency contracts. Management currently diversifies across different counterparties, and one counterparty cannot exceed 15% of the fund's total net assets.

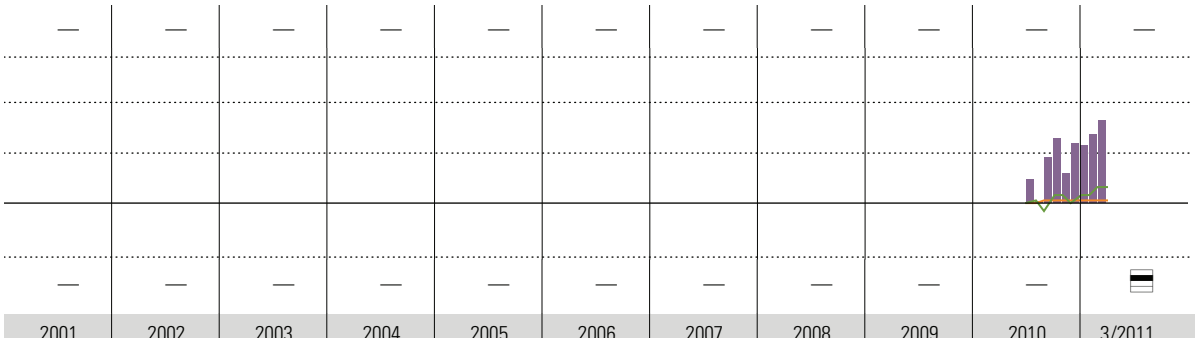
Oppenheimer Currency Opportunities A OCOAX

Performance

Morningstar Rating™ —

Morningstar Category™ US OE Currency

Net Assets (Mil) 15.37(USD)



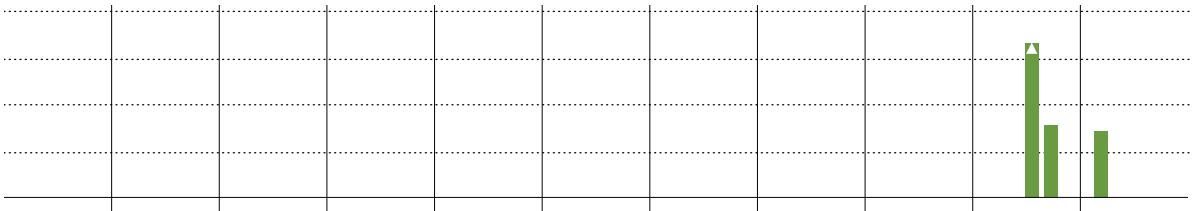
Investment Style

Growth of 10K

- Fund
- BofAML USD LIBOR 3 Mon CM
- Category

Quartile Rank (cat) (within category)

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	3/2011	**History**
—	—	—	—	—	—	—	—	—	—	2.28	Total Return %
—	—	—	—	—	—	—	—	—	—	2.20	+/- BofA...
—	—	—	—	—	—	—	—	—	—	1.44	+/- Category
—	—	—	—	—	—	—	—	—	0.53	0.53	Income $
—	—	—	—	—	—	—	—	—	—	—	Capital Gains $
—	—	—	—	—	—	—	—	—	13	15	Net Assets $Mil



Relative Fund Quarterly vs. Fund Category

- Quarterly Fund Relative Return
- Category Baseline
- Best Qtr Performance
- Worst Qtr Performance

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	**Qtrly Total Returns**
—	—	—	—	—	—	—	—	—	—	2.28	1st Quarter
—	—	—	—	—	—	—	—	—	—	—	2nd Quarter
—	—	—	—	—	—	—	—	—	4.40	—	3rd Quarter
—	—	—	—	—	—	—	—	—	1.38	—	4th Quarter

Trailing Total Returns 4/15/2011

	Trailing Ret %	+/-Index ‡	+/- Cat	% Rnk Cat	*Std Ret %
YTD	4.04	3.95	2.67	41	2.28
1 Mo	2.70	2.67	1.86	29	1.36
3 Mo	4.59	4.50	3.40	33	2.28
12 Mo	—	—	—	—	—
3 Yr Annualized	—	—	—	—	—
5 Yr Annualized	—	—	—	—	—
10 Yr Annualized	—	—	—	—	—
15 Yr Annualized	—	—	—	—	—
Inception	10.11	9.79	7.78	—	8.25

*Quarter-end data through 3/31/2011

‡BofAML USD LIBOR 3 Mon CM

Tax Analysis

	3-Yr Avg %	5-Yr Avg %	10-Yr Avg %
Pretax Return	—	—	—
Tax-Adjusted Return	—	—	—
% Rank in Category	—	—	—
Tax Cost Ratio	—	—	—

Potential Cap Gains Exp % —

Ratings and Risk —

	Overall	3 Yr	5 Yr	10 Yr
Morningstar Rating™	—	—	—	—
Number of Funds Rated	—	—	—	—
Morningstar Risk™	—	—	—	—
Morningstar Return™	—	—	—	—

Volatility Measurements	3 Yr	5 Yr	10 Yr
Standard Deviation	—	—	—
Mean	—	—	—
Sharpe Ratio	—	—	—

Bear Market Decile Rank (5 Yr) —

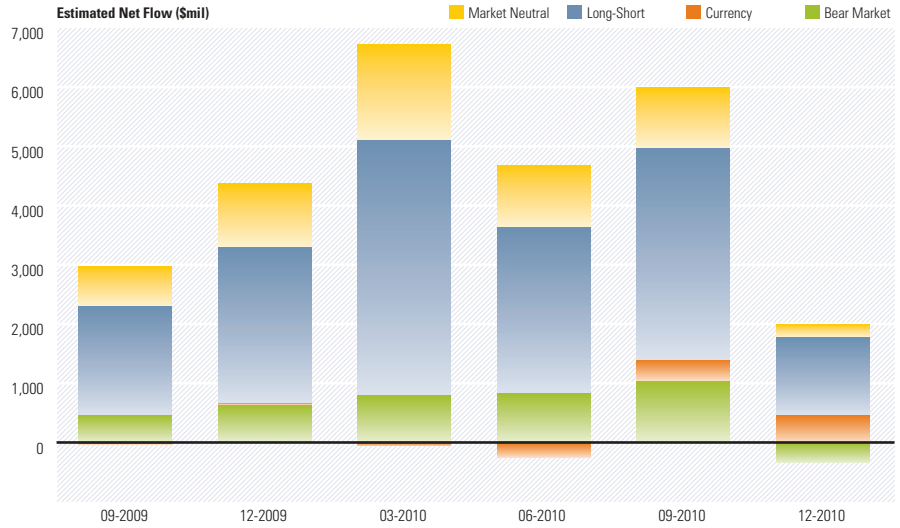
Modern Portfolio Theory Statistics	Standard Index BofAML USD LIBOR 3 Mon CM	Best Fit Index
R-Squared	—	—
Beta	—	—
Alpha	—	—

Trailing 3-Yr through 3/31/2011

Flows and Assets Under Management: Alternative Mutual Funds

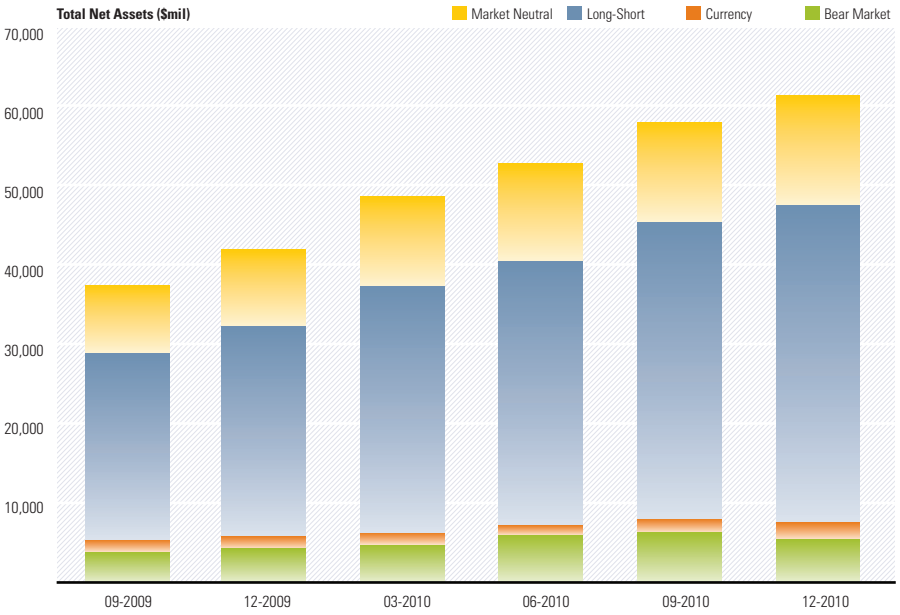
Quarterly Alternative Mutual Fund Flows

During the fourth quarter of 2010, alternative mutual funds experienced inflows of $1.7 billion, a 72% decline from the previous quarter. Funds in the currency category saw net inflows of $469 million, the largest quarterly inflows since the first quarter of 2008. Conversely, funds in Morningstar's bear-market category leaked $338 million, the most outflows in eight quarters. Funds in the long-short and market-neutral categories received $1.3 billion and $208 million, respectively, from investors in the fourth quarter of 2010, significantly less than in the previous quarter.



Quarterly Alternative Mutual Fund Assets Under Management

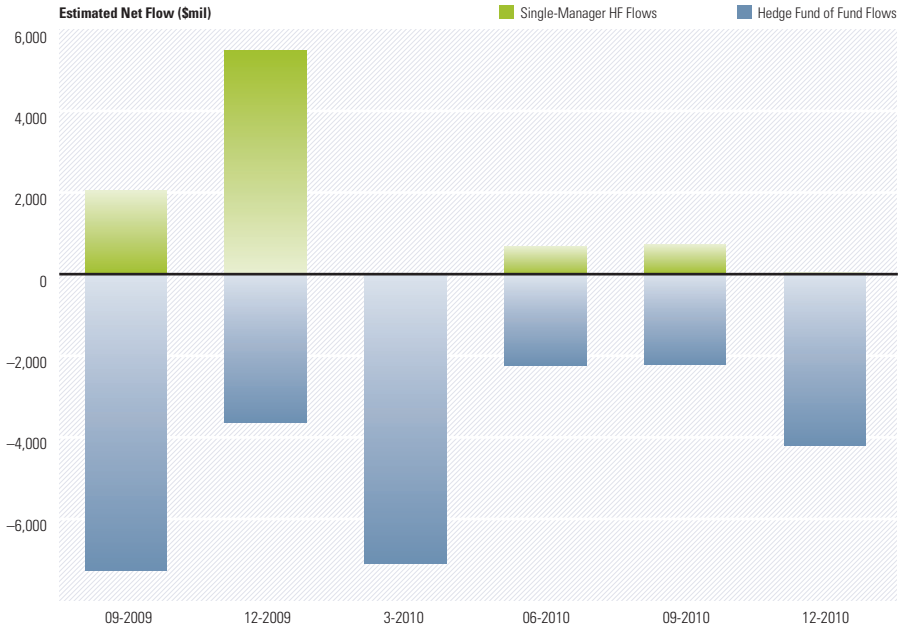
Assets under management of all alternative mutual funds increased by 5.8% during the fourth quarter of 2010 to $61.2 billion—a record high. Alternative mutual funds still represent less than 1% of total mutual fund assets, however. All fund categories except for the bear-market category showed an increase in assets under management, because of both negative returns and outflows, while currency funds exhibited the largest quarterly increase (27%) as a result of inflows. Total assets in the long-short category and market-neutral category stood at $39.9 billion and $13.8 billion, respectively, as of Dec. 31, 2010.



Flows and Assets Under Management: Hedge Funds

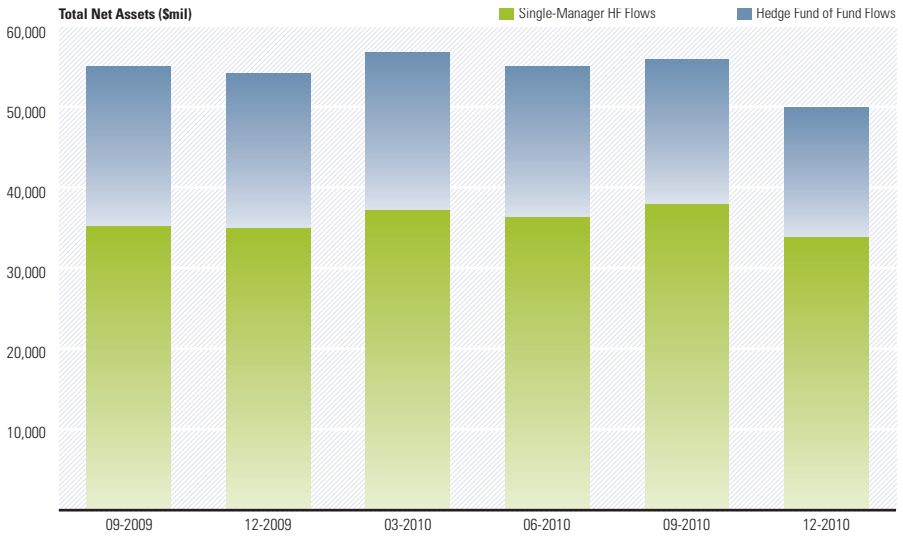
Quarterly Hedge Fund Flows

During the fourth quarter of 2010, both single-manager hedge funds and hedge funds of funds in the Morningstar database experienced outflows of $21.4 million and $4.1 billion, respectively. Funds in the global trend and debt arbitrage categories experienced the largest inflows of $2.4 billion and $961.0 million, respectively. Global nontrend and multistrategy hedge funds in the database bled $3.3 billion and $458.0 million, respectively. Hedge fund of funds in the database continued to see significant outflows, losing another $4.1 billion in the fourth quarter. For the year ended Dec. 31, 2010, single-manager hedge funds attracted $1.4 billion in assets, while investors pulled $15.6 billion from hedge funds of funds.



Quarterly Hedge Fund Assets Under Management

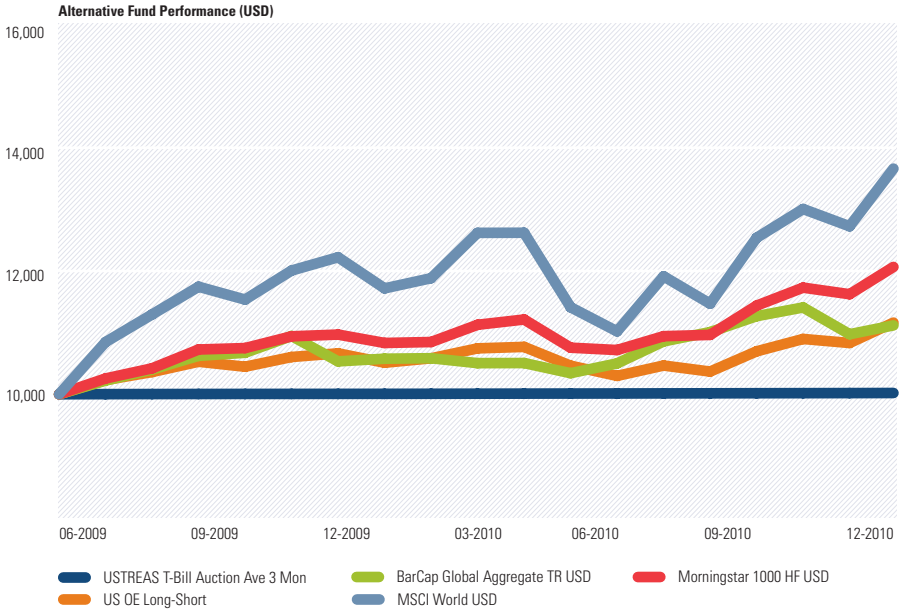
Single-manager hedge fund assets in Morningstar's database declined 11.4% over the fourth quarter. Year on year, assets under management of single-manager hedge funds fell by 5.1% over the year ended Dec. 31, 2010. Assets of hedge funds of funds also plummeted over both periods. Hedge funds of funds within Morningstar's database manage 10.5% less than in the previous quarter and 12.4% less than one year ago. As hedge funds can be slow to report assets under management, flow and total assets data can change as more funds report to the database.



Alternative Investment Performance

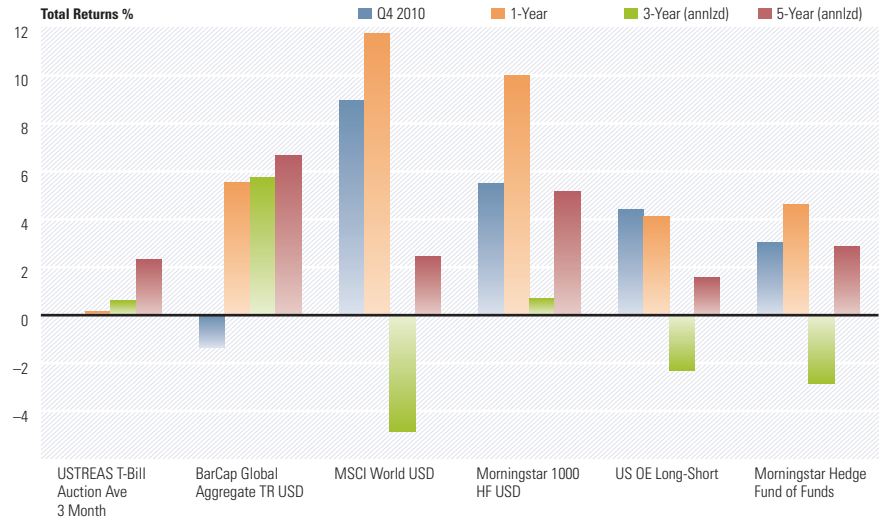
Growth of a $10,000 Alternative Investment

Hedge funds in Morningstar's database, as proxied by the Morningstar 1000 Hedge Fund Index, and the average long-short mutual fund returned 5.5% and 4.4%, respectively, in the fourth quarter, while the MSCI World NR Index increased by 9.0%. Over the past 18 months, global stocks outperformed hedge funds. The MSCI World NR Index rose by 11.8%, while the Morningstar 1000 Hedge Fund Index increased by 10.0%. Hedge funds in Morningstar's database substantially outperformed their mutual fund equivalents over the last quarter, as well as over the past 18 months, as hedge funds were able to employ more leverage and invest in less-liquid securities.



Performance of Alternative Investments Over Time

While global stocks (as represented by the MSCI World NR Index) outperformed the average hedge fund (per the Morningstar 1000 Hedge Fund Index) over the quarter and year ended Dec. 31, 2010, hedge funds provided better returns over the past three and five years. Global bonds have fared even better than stocks and hedge funds over the long term, but bonds tumbled in the fourth quarter of 2010. Long-short mutual funds underperformed single-manager hedge funds but outperformed hedge funds of funds in the last quarter of the year, as well as over the three-year period ended Dec. 31, 2010.

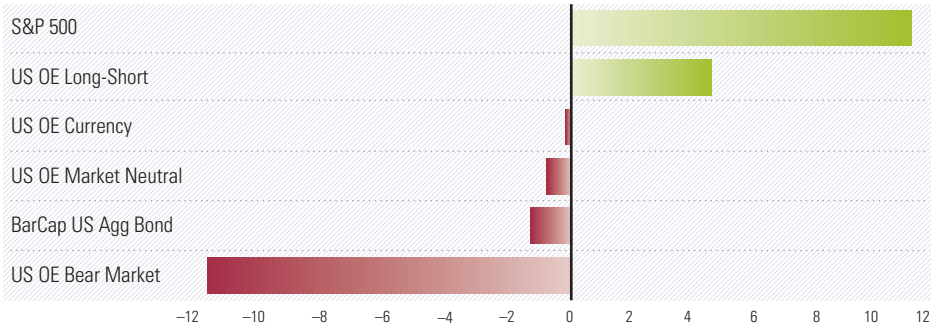


Q4 Performance by Category

Alternative Mutual Funds

A fourth-quarter 2010 market rally continued to hurt mutual funds in the bear-market category. These funds lost 11.5% on average. Long-short mutual funds managed only moderate gains of 4.4% on average, while the S&P 500 Index improved by 10.8%. Currency funds lost 0.2% on average for the quarter ending Dec. 31, 2010, but protected capital better than U.S. bonds, which declined 1.3%.

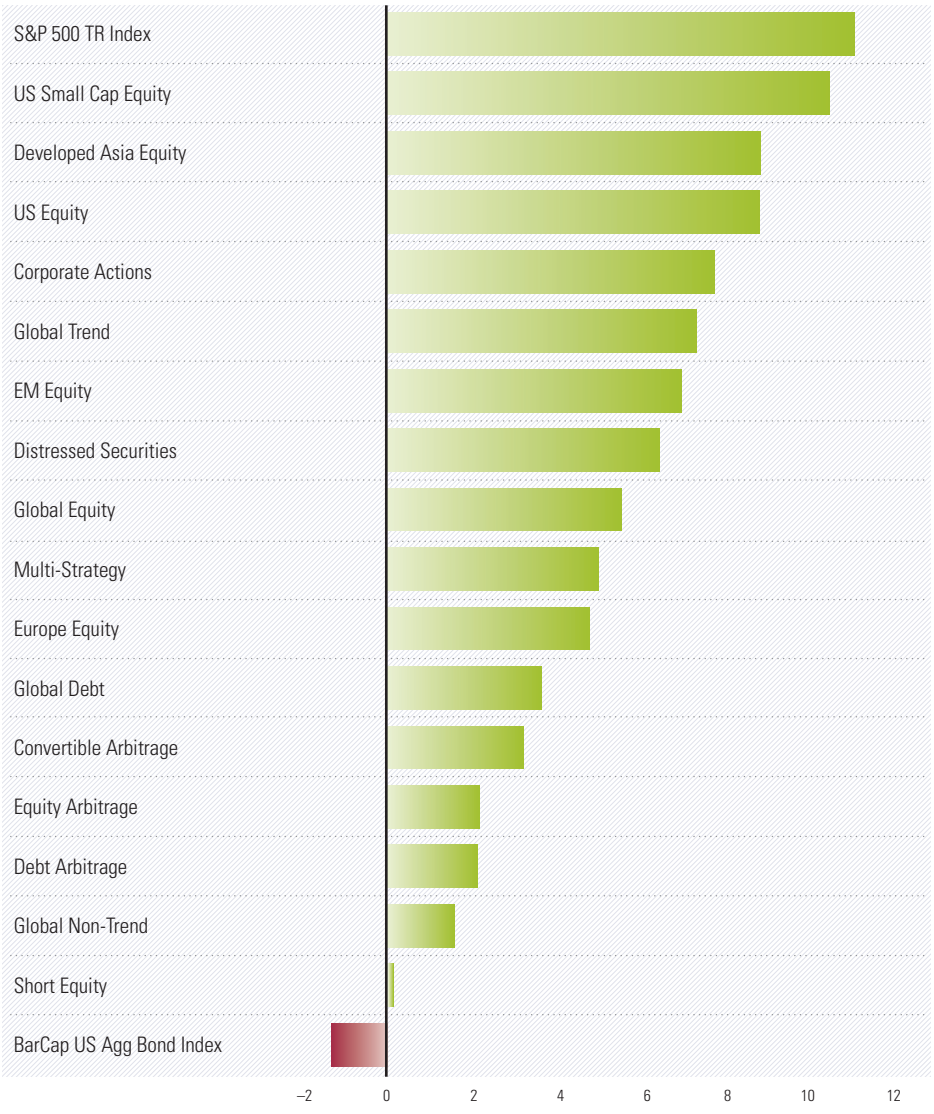
Morningstar Alternative Mutual Fund Category Averages: Q4 2010 Total Returns %



Hedge Funds

In the fourth quarter, all hedge fund categories in Morningstar's database experienced gains. None of them, however, were able to outpace the S&P 500 Index. Long-biased equity hedge funds trading across geographies and market capitalizations performed the best, while short-biased equity hedge funds and global non-trend-following strategies struggled. The Morningstar U.S. Small Cap Equity Hedge Fund Index stood out, increasing 10.1% over the quarter ended December 2010.

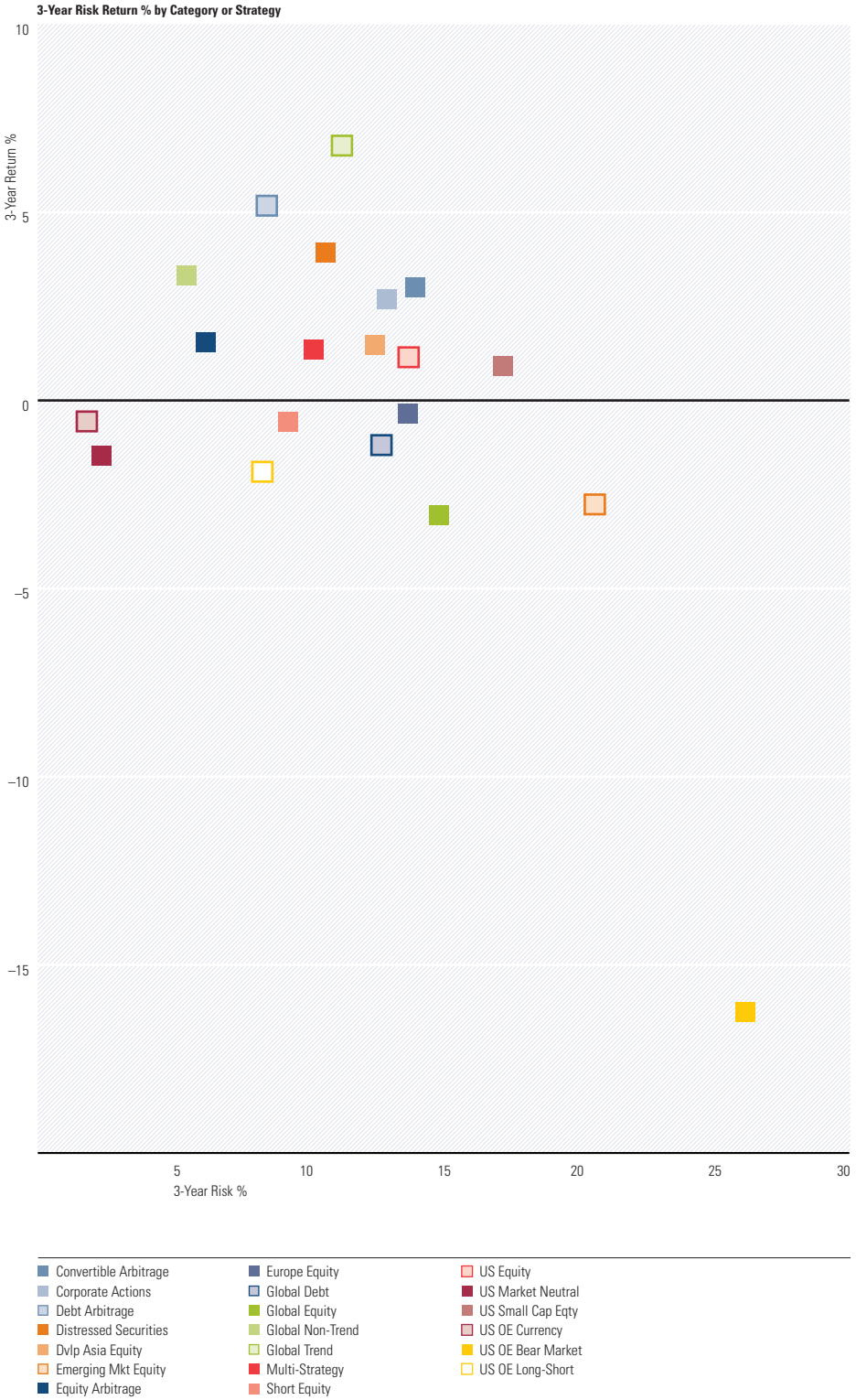
Morningstar Hedge Fund Category Indexes: Q4 2010 Total Returns %



Risk Versus Return: Alternative Mutual Funds and Hedge Funds

Three-Year Standard Deviation and Return

Eleven alternative-investment category indexes and averages provided positive returns over the three years ended December 2010. Both the Global Trend and Global Non-Trend Hedge Fund indexes experienced growth of 6.8% and 3.3%, respectively, as both of these categories profited from global macroeconomic bets. The Morningstar Debt Arbitrage Hedge Fund Index also saw an increase of 5.2%, helped by dislocations in the credit markets. In terms of risk-adjusted returns, these three categories of hedge funds also produced the best results over the past three-year period. In contrast, the U.S. bear-market mutual fund category saw a 16.2% decline on average over the three-year period ended December 2010, with the highest standard deviation of all alternative categories, 26.2% annualized. Market-neutral mutual funds exhibited a similarly poor risk-adjusted return profile on average, losing 1.5% with a 2.4% annualized standard deviation.



Correlations by Alternative Fund Strategy

Three-Year Correlations: Alternative Mutual Fund Categories	1	2	3	4	5
1 US OE Long-Short Cat Average	1.00				
2 US OE Bear Market Cat Average	-0.94	1.00			
3 US OE Currency Cat Average	0.57	-0.51	1.00		
4 US OE Market Neutral Cat Average	0.16	-0.01	0.08	1.00	
5 Morningstar 1000 HF Index	0.93	-0.81	0.56	0.16	1.00

Three-Year Correlations: Hedge Fund Category Indexes	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Morningstar Convertible Arbitrage HF USD	1.00															
2 Morningstar Corporate Actions HF USD	0.88	1.00														
3 Morningstar Debt Arbitrage HF USD	0.93	0.88	1.00													
4 Morningstar Distressed Sec HF USD	0.68	0.78	0.78	1.00												
5 Morningstar Dvlp Asia Equity HF USD	0.80	0.87	0.79	0.63	1.00											
6 Morningstar EM Equity HF USD	0.85	0.94	0.86	0.75	0.89	1.00										
7 Morningstar Equity Arbitrage HF USD	0.79	0.81	0.73	0.48	0.81	0.79	1.00									
8 Morningstar Europe Equity HF USD	0.79	0.85	0.75	0.60	0.86	0.86	0.92	1.00								
9 Morningstar Global Debt HF USD	0.94	0.89	0.92	0.80	0.76	0.86	0.75	0.76	1.00							
10 Morningstar Global Equity HF USD	0.87	0.95	0.85	0.68	0.92	0.95	0.89	0.92	0.85	1.00						
11 Morningstar Global Non-Trend HF USD	0.65	0.73	0.62	0.39	0.74	0.71	0.88	0.78	0.60	0.80	1.00					
12 Morningstar Global Trend HF USD	0.10	0.28	0.04	0.06	0.35	0.25	0.54	0.48	0.06	0.36	0.67	1.00				
13 Morningstar Multi-Strategy HF USD	0.92	0.97	0.90	0.78	0.89	0.94	0.85	0.88	0.91	0.96	0.76	0.30	1.00			
14 Morningstar Short Equity HF USD	-0.32	-0.18	-0.40	-0.15	-0.08	-0.13	-0.14	-0.04	-0.31	-0.17	-0.08	0.26	-0.19	1.00		
15 Morningstar US Equity HF USD	0.85	0.92	0.82	0.78	0.85	0.90	0.73	0.80	0.84	0.92	0.59	0.17	0.94	-0.13	1.00	
16 Morningstar US Small Cap Equity HF USD	0.82	0.90	0.82	0.77	0.90	0.92	0.74	0.82	0.82	0.93	0.65	0.24	0.94	-0.10	0.96	1.00

1.00 to 0.76 | 0.75 to 0.51 | 0.50 to 0.25 | 0.25 to 0.00
0.00 to –0.24 | –0.25 to –0.49 | –0.50 to –0.74 | –0.75 to –1.00

Correlations of Alternative Funds to Traditional Asset Classes

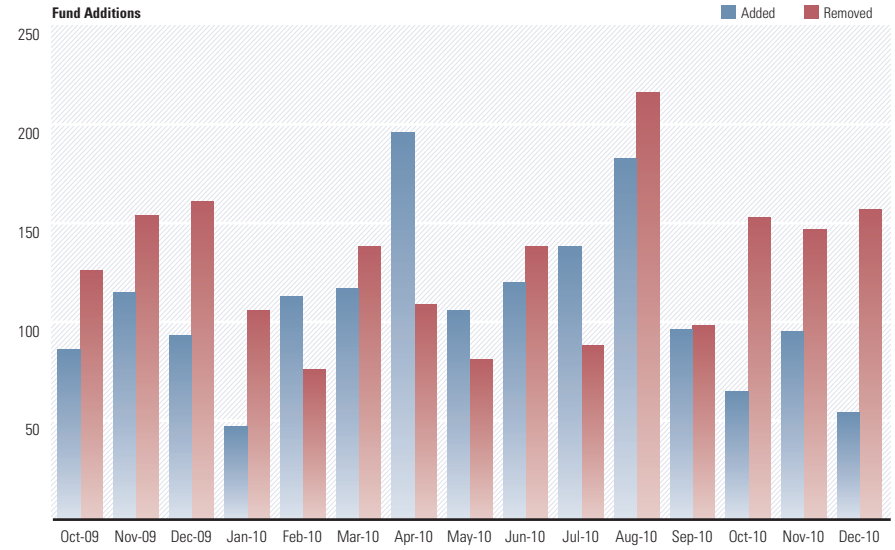
Correlation of Hedge Funds to U.S. Stocks and Bonds	S&P 500 Correlation (USD)			BarCap US Agg Correlation (USD)		
	3-Year	5-Year	10-Year	3-Year	5-Year	10-Year
US OE Long-Short	0.95	0.94	0.78	0.22	0.15	0.10
US OE Bear Market	–0.97	–0.97	–0.95	–0.28	–0.25	0.04
US OE Currency	0.52	0.44	0.11	0.06	0.05	0.26
US OE Market Neutral	0.00	–0.02	–0.38	0.15	–0.03	0.23

Correlation of Hedge Funds to U.S. Stocks and Bonds	S&P 500 Correlation (USD)			BarCap US Agg Correlation (USD)		
	3-Year	5-Year	Since Index Inception 01-01-2003	3-Year	5-Year	Since Index Inception 01-01-2003
Morningstar 1000 HF USD	0.81	0.79	0.77	0.28	0.18	0.17
Morningstar Convertible Arbitrage HF USD	0.72	0.70	0.65	0.44	0.37	0.30
Morningstar Corporate Actions HF USD	0.75	0.74	0.73	0.25	0.16	0.13
Morningstar Debt Arbitrage HF USD	0.71	0.69	0.65	0.42	0.35	0.34
Morningstar Distressed Sec HF USD	0.66	0.66	0.66	0.03	–0.03	–0.01
Morningstar Dvlp Asia Equity HF USD	0.81	0.76	0.70	0.30	0.21	0.11
Morningstar EM Equity HF USD	0.80	0.76	0.74	0.24	0.15	0.17
Morningstar Equity Arbitrage HF USD	0.64	0.61	0.58	0.36	0.21	0.22
Morningstar Europe Equity HF USD	0.76	0.74	0.72	0.28	0.16	0.16
Morningstar Global Debt HF USD	0.72	0.70	0.67	0.37	0.30	0.29
Morningstar Global Equity HF USD	0.82	0.79	0.79	0.29	0.18	0.13
Morningstar Global Non-Trend HF USD	0.48	0.44	0.43	0.37	0.23	0.28
Morningstar Global Trend HF USD	0.11	0.17	0.21	–0.01	–0.06	0.08
Morningstar Multi-Strategy HF USD	0.78	0.76	0.73	0.23	0.13	0.15
Morningstar Short Equity HF USD	–0.05	–0.06	–0.04	–0.41	–0.35	–0.23
Morningstar US Equity HF USD	0.88	0.88	0.87	0.11	0.05	0.04
Morningstar US Small Cap Equity HF USD	0.89	0.88	0.87	0.12	0.06	0.03

Morningstar Hedge Fund Database Overview as of 12-31-10

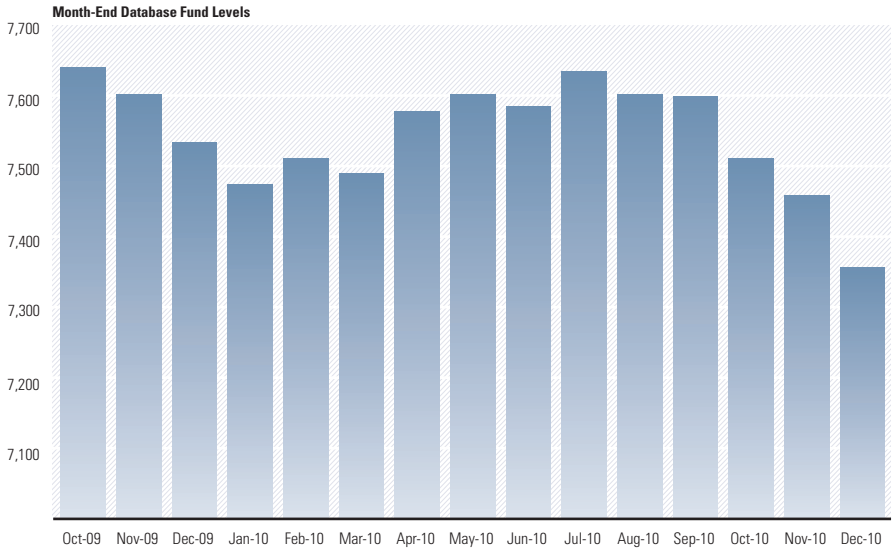
Net Fund Additions by Month

Morningstar's hedge fund database experienced a net withdrawal of 243 funds during the fourth quarter of 2010. The database saw 214 additions and 457 fund withdrawals during the quarter. Funds drop out because they have liquidated or because they cease sharing performance data, typically due to poor performance. Previously, Morningstar had reported total funds in the database, including funds with incomplete performance or assets-under-management data. These numbers have been revised to include only funds with more-robust data.



Month-End Database Fund Levels

As of Dec. 31, 2010, the Morningstar hedge fund database contained 7,356 funds with performance history and assets-under-management data. This figure includes both single-manager hedge funds and funds of hedge funds, which account for approximately 4,800 and 2,600 funds, respectively. As of the end of the fourth quarter of 2010, the number of funds in the database had dropped approximately 4% from October 2009 levels.

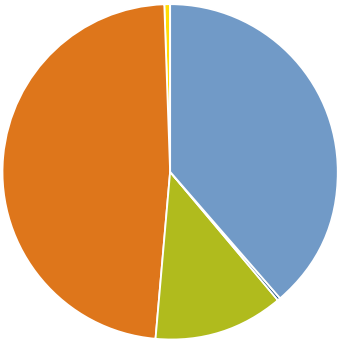


Morningstar Hedge Fund Database Overview as of 12-31-10

Hedge Funds by Region

Nearly 40% of hedge funds in the Morningstar database are domiciled in the North American/ Caribbean region, primarily in the United States and Canada. Many of the Caribbean-based hedge funds are offshore feeder funds established for U.S. tax-exempt investors. Almost 48% of funds in Morningstar's database are domiciled in Europe, including both European Union and non-EU jurisdictions.

Morningstar Hedge Fund Database by Region



Region	# Funds
N. America/Carribean	2,809
Africa	17
Asia/Australia	902
Europe	3,469
South America	375
Total	**7,234**

Hedge Funds by Location

The United States, Canada, the United Kingdom, Switzerland, France, and China are home to more than 75% of hedge funds in Morningstar's database. One year ago, hedge funds domiciled in Luxembourg and in the Cayman Islands comprised a much larger part of Morningstar's database.

North America and Surrounding	**2,809**
United States	2,258
Canada	229
Cayman Islands	116
Bermuda	72
British Virgin Islands	62
Bahamas	50
U.S. Virgin Islands	13
Netherlands Antilles	3
St. Kitts and Nevis	2
Barbados	2
Mexico	2

Africa	**17**
South Africa	10
Mauritius	4
Swaziland	2
Botswana	1

Asia and Australia	**902**
China	656
Hong Kong	95
Australia	58
Singapore	52
Japan	23
Afghanistan	0
Saudi Arabia	7
Malaysia	4
Vietnam	2
Indonesia	2
Samoa	1
Israel	0
New Zealand	1
United Arab Emirates	1

Europe	**3,469**
United Kingdom	1,303
Switzerland	667
France	384
Sweden	195
Luxembourg	185
Italy	108
Ireland	110
Malta	68
Germany	82
Netherlands	67
Austria	45
Liechtenstein	45
Spain	39
Finland	30
Isle of Man	26
Norway	26
Channel Islands	4
Andorra	17
Denmark	12
Guernsey	11
Russia	7
Cyprus	8
Monaco	7
Jersey	6
Belgium	4
Portugal	4
Czech Republic	2
Gibraltar	2
Greece	2
Macedonia	1
Slovenia	1
Ukraine	1

South America	**37**
Brazil	32
Argentina	3
Chile	2

Morningstar Hedge Fund Database Overview as of 12-31-10

Service Providers

Morgan Stanley and Goldman Sachs are the largest prime brokerage service providers to hedge funds in Morningstar's database, serving a 30% share combined. This represents a 2% increase over the previous quarter. The big four accounting firms are employed by approximately 72% of the hedge fund database. Citco Fund Services provides administration services to approximately 9% of funds in Morningstar's database. Maples and Calder, Seward & Kissel, and Dechert are the largest legal service providers to hedge funds in the database with a combined 20% market share.

Type	Rank	Service Provider	% of Database
Prime Broker	1	Morgan Stanley	15.69
	2	Goldman, Sachs & Co.	13.96
	3	UBS	8.15
	4	Credit Suisse	6.76
	5	JPMorgan	6.49
	6	Deustche Bank	5.67
	7	Newedge Group Inc.	3.77
	8	Merrill Lynch	3.09
	9	Banc of America Securities LLC	2.62
	10	BNP Paribas	2.34
Legal Counsel	1	Maples and Calder	7.24
	2	Seward & Kissel	6.51
	3	Dechert	6.27
	4	Walkers	6.11
	5	Elvinger, Hoss & Prussen	4.14
	6	Simmons & Simmons	3.90
	7	Schulte Roth & Zabel	3.63
	8	Sidley Austin	3.50
	9	Appleby	3.09
	10	Conyers Dill & Pearman	2.58
Auditor	1	Pricewaterhouse Coopers	22.97
	2	KPMG	18.47
	3	Ernst & Young	17.56
	4	Delloite	13.35
	5	Rothstein Kass	6.01
	6	RSM / McGladery & Pullen	2.68
	7	Grant Thornton	2.66
	8	BDO	2.13
	9	Eisner	1.55
	10	Cabinet Patrick Sellam	1.32
Administrator	1	Citco	9.27
	2	Citigroup	4.74
	3	HSBC	4.72
	4	Apex	3.08
	5	CACEIS Fastnet	2.93
	6	CIBC / BNY Mellon	2.74
	7	State Street	2.05
	8	UBS	2.05
	9	Fortis Bank	2.03
	10	Northern Trust	2.00

Alternative Investments Observer

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