



Convergent Wealth Advisors White Paper

{ Hedge Funds And Their Use In Portfolios }



{ Overview }

The term *hedge fund* has seen its visibility rise but its meaning continues to be misunderstood by the media, general public and investors. Many folks believe *hedge funds* are all similar in strategy, secrecy, complexity and perhaps most importantly, risk. Because we were early adopters of alternative investments and have used them extensively in client portfolios for over a decade, our experience tells us that *hedge funds* are not homogenous. Rather, *hedge funds* represent a wide range of strategies, from conservative to very aggressive, and employ a wide range of execution methods, from relatively exotic trading techniques to straight-forward stock-picking. Most importantly, hedge funds are a structure, not an asset class.

To be precise, hedge funds are simply a form of investment vehicle, much like a mutual fund or unit investment trust. Like those vehicles, hedge funds pool capital of individuals and institutions to invest in a variety of underlying assets. Much of the mystique of hedge funds is attributable to the fact that they are exempt from many of the rules and regulations imposed by securities regulators. Because of their reduced regulation, hedge fund managers can utilize investment techniques that are unavailable to managers of vehicles that are highly subject to regulation, such as mutual funds; the main techniques include selling short and utilizing leverage. More importantly, these techniques serve to enhance the opportunity set available to the hedge fund managers to generate profit.

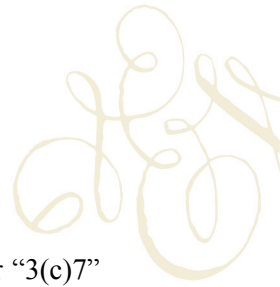
We have written this Primer to expel some of the myths associated with hedge funds and to explain why and how we at Convergent employ hedge funds within client portfolios. Specifically, in this Primer we will:

- Review the salient features of the typical hedge fund, such as structure, fees, liquidity restrictions, transparency, and taxes;
- Dispel any confusion regarding single-strategy funds, funds-of-funds, and multi-strategy funds;
- Segregate the hedge fund universe into Directional, Semi-Directional and Non-Directional strategies and introduce the reader to each of those categories;
- Analyze how adding hedge funds to client portfolios can lower expected risk and/or increase expected returns of the portfolio; and
- Delve deeper into each of the various types of strategies that constitute the Directional, Semi-Directional and Non-Directional categories.

{ Salient Features }

BASIC STRUCTURE AND INVESTMENT MINIMUMS

Hedge funds are typically organized as limited partnerships or limited liability companies, and are privately-held entities, not available to the general public. This privately-held nature (among other characteristics) allows these funds to be exempt from registration under the



Securities Act of 1933.¹ In addition, most hedge funds are either so-called “3(c)1” or “3(c)7” funds, which are references to sections of the Investment Company Act of 1940 that provide exemptions from registration under that law as well.² Funds seeking an exemption under 3(c)1 are limited to 99 investors, all of whom must be “accredited investors,” and funds designated as 3(c)7 are limited to a maximum of 499 investors, all of whom must be “qualified purchasers.”³ Because of the limited number of investors allowed, most hedge funds set high minimum investment amounts, typically ranging from \$500,000 to \$2 million, but sometimes even higher.

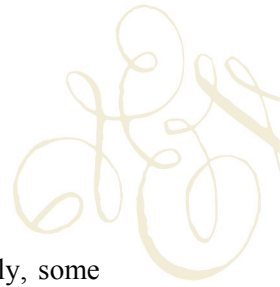
FEES

As with other investment vehicles such as ETFs or mutual funds, hedge fund investors pay a fee to the fund manager. This fee is segregated into administration services fee and the incentive fee. The administrative fee is often higher for hedge funds than for public investment vehicles, and typically ranges from 1% to 2% of assets under management in the fund. In addition, it is common for hedge fund managers to collect an incentive fee, i.e. a percentage of annual profits generated in the fund, usually in the range of 5% to 20%. (One should note, however, that the managers of funds-of-hedge-funds may not charge incentive fees.) Despite these fees being higher than those typically imposed by mutual funds or ETFs, we believe that these fees are warranted because hedge funds managers generally are the top investment talent in the marketplace (and, as a result, can command higher compensation) and more importantly have historically generated for their investors better risk-adjusted returns, net of those fees, than publically available vehicles. We will explore this potential for better risk-adjusted returns in detail below.

LIQUIDITY

Liquidity terms are also different for hedge funds compared to traditional investment vehicles. Common public investment vehicles, such as ETFs or mutual funds, have daily liquidity, but because hedge funds are private, lightly-regulated vehicles, they typically impose material liquidity restrictions on their investors. For example, most hedge funds accept contributions at the beginning of each month, but only allow investors to withdraw capital at periodic intervals, such as at the end of each calendar quarter or year (whether calendar year or anniversary date). Moreover, investors must provide written notice to the hedge fund manager in advance of the

- 1 The '33 Act governs securities. It requires the registration of a security, along with certain disclosure, before that security may be sold or even offered to be sold to the public. A security need not be registered if, among other things it is not offered or sold to the public; there are various exemptions addition to this “private offering” exemption. As one can imagine, the registration is very burdensome and expensive, and thus hedge fund managers want to be exempt from registration. Securities offered privately must make similar disclosures as those offered publicly. (This is an optional edit, but I thought it helped clarify the point)
- 2 The Company Act of 1940, rather than regulating securities, instead regulates investment vehicles, such as mutual funds. One should note that, even though a typical hedge fund usually seeks to avoid registration both for the fund under the 1940 Act and its securities under the 1933 Act, many hedge fund managers are registered with appropriate securities regulators under the Investment Advisors Act of 1940, which not surprisingly regulates investment managers and advisors.
- 3 As defined by the SEC, an “accredited investor” is generally a natural person whose individual net worth, or joint net worth with spouse, exceeds \$1 million at the time of purchase or an entity owning over \$5 million in discretionary investments. A “qualified purchaser” is defined as a natural person having at least \$5 million in investments or an entity owning over \$25 million in discretionary investments.



permitted redemption date, sometimes 90 or even 180 days prior to that date.⁴ Lastly, some funds impose a ‘lock-up’ which is a set period of time, after becoming an investor in a fund, during which the investor is restricted from redeeming from the fund. A typical lock-up period is one to two years.

In addition to limiting the days on which redemptions can occur and requiring advanced notice, many hedge funds impose “gates” on investor redemptions. A gate is a limitation on what percentage of capital may flow out of a fund on any particular withdrawal date, and just as there is no fixed industry-wide standard for withdrawal dates, gates come in many shapes and sizes. For example, a fund’s governing documents may sometimes provide that redemptions permitted for any particular date may not exceed 20% of the fund’s net asset value. The terms and language surrounding gates can differ substantially from manager to manager and ultimately, the exact details of each fund’s gate are spelled out in each fund’s Private Placement Memorandum (“PPM”) and require careful consideration.

It is important to note that these liquidity restrictions are not meant simply to hold an investor’s capital hostage. Generally, we believe that investments with the highest expected returns often have a longer incubation period before their intrinsic value can be fully realized. Accordingly, these liquidity restrictions seek to protect fund investors from a mismatch between potential investor redemptions and the expected timing of the realization of the intrinsic value of the fund’s investments. In other words, a gate’s function is to protect investors who have not requested withdrawals by allowing the fund to meet an appropriate level of redemptions without being forced to sell large portfolio positions below their intrinsic value.

TRANSPARENCY

It is well known that the manager of a mutual fund must report, twice per year, the security positions owned inside the mutual fund. In contrast, managers of hedge funds are not required to provide these periodic disclosures, and thus typically do not disclose their positions to investors.⁵ Accordingly, as a practical matter, most hedge fund managers provide, only on a monthly or quarterly basis, estimates of the value of a fund’s portfolio holdings, and these estimates are then finalized upon completion of the annual financial audit of the fund. Fortunately, at Convergent, our strong relationships with various hedge fund managers allow us significant insight, and sometimes full disclosure, into the portfolios and positions of certain managers employed by our clients. In addition, because of these strong relationships, the hedge fund managers that are employed in our client portfolios often provide us detailed information regarding security, strategy and country exposures and leverage employed, as well as information such as investor concentration.

⁴ Most hedge funds “hold-back” a certain percentage, often 10%, of an investor’s final redemption. The so-called “hold-back” is designed to allow for changes in the valuation of underlying investments, which are usually not finalized until the funds annual audit occurs.

⁵ One can only imagine the competitive advantage provided to hedge fund managers due to this lack of forced disclosure!



TAXES

Finally, due to the nature of the investment strategies used in many hedge funds, at Convergent, we choose to be conservative and assume that 100% of the annual appreciation of an investor’s interest in a fund will be taxable.⁶ Our rationale is that returns generated by non-directional hedge fund strategies (discussed in detail below) are generally attributable to bond interest and short term trading gains, while returns generated by directional hedge fund strategies (again, discussed below) are generally attributable to short term trading gains and only secondarily to long term gains. Of course, this assumption is updated upon receipt of a hedge fund’s K-1 which is issued to the investor and which details the partnership’s actual taxable activity for the year.⁷

Despite the tax-inefficiency of hedge fund investing, we believe that hedge funds, both directional and non-directional, should produce risk-adjusted returns on an after-tax basis greater than either traditional developed country (whether US or international) equities or traditional fixed income. As of September 30, 2008, our forward-looking, 10-year forecasts project the following after-tax (and management fee) returns and standard deviation of Directional Hedge Funds, Non-Directional Hedge Funds, Domestic Large Cap Equities, International Developed Equities and Intermediate Government/Corporate Bonds:⁸

| | 10 YEAR EXPECTED AFTER-TAX RETURNS (%) | EXPECTED VOLATILITY (%) | RETURNS ADJUSTED FOR RISK (a.k.a Sharpe Ratio using a 3% risk-free rate) (i.e. ratio of return in excess of 3% divided by volatility) |
|-------------------------------------|---|-------------------------------|---|
| Directional Hedge Funds | 9.53 | 12.00 | 0.544 |
| U.S. Large Cap Equities | 9.64 | 15.00 | 0.442 |
| Developed Non-U.S. Equities | 11.77 | 16.00 | 0.548 |
| Non-Directional Hedge Funds | 5.68 | 6.00 | 0.447 |
| Intermediate Gov/Corp. Bonds | 3.15 | 4.50 | 0.033 |

In each case, we expect directional and non-directional hedge funds to produce returns, net of tax and after adjustment for risk (as indicated by their Sharpe ratio), higher than their traditional equities or fixed income brethren.

In any event, even though hedge funds are relatively tax inefficient, at Convergent, we attempt to reduce the potential tax consequences by placing the more tax-inefficient hedge funds in tax-deferred retirement vehicles or tax exempt entities such as private foundations.

6 We feel that one is better off making conservative assumptions when preparing quarterly estimated tax payments rather than underestimating and paying penalties.

7 One should note that, oftentimes, these K-1s will indicate that some portion of a fund's appreciation is realized long term gain and even unrealized gains (particularly for long/short strategies).

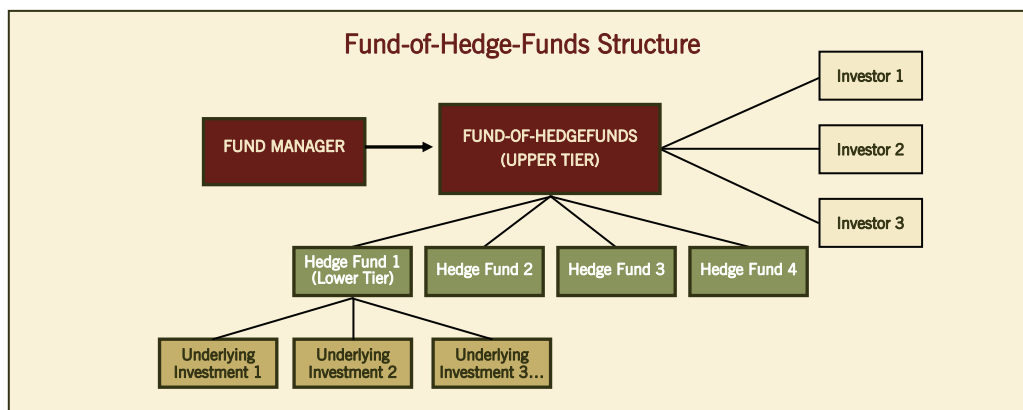
8 Convergent uses various assumptions and economic data in creating it's forecast. Please refer to Appendix A for a summary of our forecasting methodology.



Doing so allows an investor to realize the entire return of the investment without material adverse tax consequences.⁹ One must be cautious when allocating hedge funds to tax-deferred or tax exempt entities, however, and so we choose to coordinate closely with a client’s accountant when effecting such an allocation due to the potential for increased compliance.

{ A Word About Single-Strategy Funds, Fund-of-Funds, and Multi-Strategy Funds }

Much confusion abounds about fund-of-funds and “multi-strategy” vehicles. To alleviate this confusion, one must begin with what we call “single-strategy” funds. A single-strategy fund is simply a hedge fund that pursues a particular investment strategy (we will review in detail below the more common investment strategies) employed by a single manager. A multi-strategy fund is a fund which pursues multiple strategies, whether employed by a single manager or a manager of a fund-of-hedge-funds. A fund-of-hedge-funds is simply a two-tiered investment structure, with the upper tier being the fund into which investors contribute their



capital, and the lower tier being a number of hedge funds (single strategy and/or multi-strategy) into which the upper tier fund invests its capital (which of course is simply the pool of investors’ capital). Please refer to the graphic below.

Thus, a fund-of-hedge-funds can have a specific investment focus or bias by assembling at the lower-tier a collection of single-strategy funds each dedicated to a similar strategy, or a fund-of-hedge-funds can pursue a multi-strategy approach, through assembling a collection of funds each typically dedicated to a single strategy, but where those strategies differ across the lower tier funds.

⁹ Some income generated within certain types of hedge funds, particularly non-directional funds, however, is subject to Unrelated Business Tax Income (UBTI) even if the investment is contained in a tax-deferred account. UBTI is income earned in a tax-exempt entity that is attributable primarily to leverage used by the funds. The amount of taxable income is generally small, but it will result in a tax liability in otherwise tax-exempt accounts. It is also an additional administrative burden to pay quarterly estimates and file in the year-end tax return.



{ Organizing the Hedge Fund Universe }

To better understand hedge funds and how we recommend them for client portfolios, we find it beneficial to organize the investment strategies commonly pursued by hedge funds into three broad categories: directional, non-directional, and semi-directional, as follows:¹⁰

- Directional – directional strategies may possess significant net market exposure and higher levels of volatility, and typically consist of:
 - Long-Short Equity
 - Global Macro and
 - Commodity Trading Advisors (“CTA”)
- Non-Directional – non-directional strategies usually possess low or no net market exposure and low volatility, and typically consist of:
 - Relative Value
 - Equity-Market Neutral and
 - Other Arbitrage Trading Strategies
- Semi-Directional - semi-directional strategies usually possess moderate market exposure and volatility, and typically consist of:
 - Event Driven
 - Distressed Securities and
 - Special Situations

With this framework in place for organizing the hedge fund universe, we can better explore each of those categories and their constituent strategies. Before doing so, however, let us analyze why an investor would want to consider allocating a portion of his or her portfolio assets to hedge funds.

{ Hedge Funds and Their Use Within Client Portfolios }

COMPLIMENTS TO TRADITIONAL EQUITIES AND FIXED INCOME

Simply: at Convergent, we employ hedge funds to improve the risk and return profile of client portfolios – that is, to allow clients to seek greater returns with a goal of no additional volatility (a standard measure of risk) or conversely to seek the same level of returns with less volatility. Specifically, in the “growth” portion of a client’s portfolio, we use directional (and sometimes semi-directional) hedge fund strategies as a compliment to traditional equities, and more particularly to produce returns that compare favorably to the broad equities markets, yet with volatility lower than those markets.

¹⁰ It is important to note that any such categorization is imperfect and that these categories are mere labels. That is, by nature, these labels cannot entirely describe all important aspects of a particular strategy (whether return, volatility, kurtosis, skew, correlation, etc.). In other words, any particular hedge fund strategy needs to be viewed from a variety of perspectives to be understood, in addition to the label used to categorize a strategy. Thus, we believe that these three broad categories are useful as a tool (to be employed with other tools) to facilitate the understanding of the hedge fund universe and the various individual investment strategies.



For example, over the period January 1, 1990 to September 30, 2008 the annualized returns and volatility of the S & P 500 index and the HFRI Equity Hedge index¹¹ were:

| | RETURNS | VOLATILITY |
|-------------------------|---------|------------|
| S & P 500 Index | 8.85% | 13.97% |
| HFRI Equity Hedge Index | 14.73% | 8.88% |

Over that time period, \$100,000 invested in the S & P 500 index and \$100,000 in the HFRI Equity Hedge index¹² would have grown to \$491,000 and \$1,317,000, respectively. That is a cumulative wealth difference of almost triple!

Similarly, in the “conservative” portion of a client’s portfolio, we use non-directional (and again, sometimes semi-directional) strategies to complement traditional fixed income securities. We believe that non-directional funds, unlike fixed income funds, have less risk of losing principle in rising interest rate environments and historically, modestly better returns than traditional fixed income. Yet, non-directional funds have historically demonstrated volatility similar to traditional fixed income and, like fixed income, low correlation to the broad equities markets, which is critical for diversification purposes.

For example, over the period January 1, 1990 to September 30, 2008, the annualized returns and volatility of the Lehman Aggregate Bond index and the HFRI Fund-of-Funds Conservative index¹³ were:

| | RETURNS | VOLATILITY |
|-----------------------------|---------|------------|
| Lehman Aggregate Bond Index | 6.91% | 3.74% |
| HFRI FoF Conservative Index | 7.69% | 3.58% |

That 0.78% annualized difference in returns for the HFRI Fund-of-Funds Conservative index is not as dramatic as the outperformance of the HFRI Equity Hedge index noted above, but over time, that additional return would still be significant. Over the 18.75 year period illustrated, \$100,000 invested in the Lehman Aggregate would have grown to \$350,000 while the same amount invested in the HFRI Fund-of-Funds Conservative index would have grown to \$401,000. Not an immaterial difference (in fact, 15% different over that time period).

11 The HFRI Equity Hedge index consists primarily of long/short equity hedge funds, and thus, we think that it is the most appropriate comparison for the S & P 500 Index.

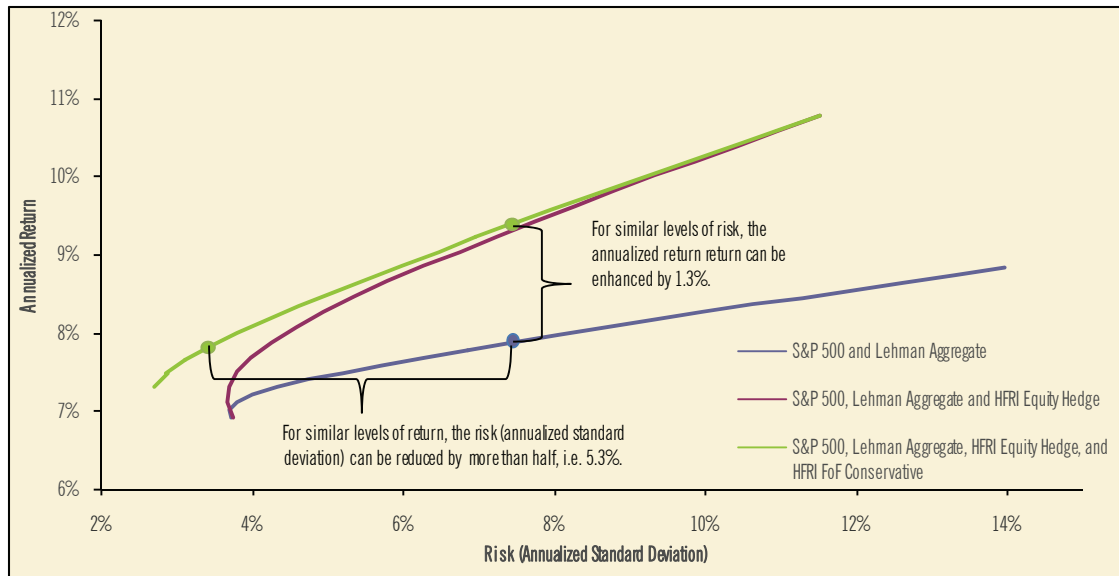
12 One should note that the HFRI indices are in fact not investable, but for purposes of this Primer and simplicity, we have assumed otherwise. Index results assume the re-investment of all dividends and interest.

13 At Convergent, we view the HFRI FoF Conservative index as the most appropriate, low-volatility HFRI index to compare to a diversified bond portfolio, here represented by the Lehman Aggregate index.



EFFECT ON PORTFOLIO RISK AND RETURN POTENTIAL

Let us explore the above return and risk differential from a different perspective, that of portfolio efficiency. Please refer to the graphic below where we plot three different efficient frontiers, each consisting of a blend of equities and fixed income investments. (An efficient frontier is a line, on which each point represents a different portfolio. These portfolios differ only in the weights given to the equities portion and fixed income portion, starting at 0% equities /100% fixed income, and ending with 100% equities /0% fixed income.)



In the efficient frontiers graphed above, the lines are constructed as follows:

1. For the first frontier (the Blue line), the equities portion of each portfolio is represented solely by the S & P 500 index and fixed income portion solely by the Lehman Aggregate Bond Index;
2. For the second portfolio (the Red line), the equities portion of each portfolio consists two-thirds of the S & P 500 index and one-third of the HFRI Equity Hedge index, and the fixed income portion solely by the Lehman Aggregate Bond index; and
3. For the third portfolio (the Green line), the equities portion of each portfolio consists two-thirds of the S & P 500 index and one-third of the HFRI Equity Hedge index, while the fixed income portion of each portfolio consists one-half of the Lehman Aggregate Bond index and one-half of the HFRI Fund-of-Funds Conservative index.

The reader will note that as one adds more hedge fund exposure (progresses from the first efficient frontier [blue], to the second [red], to the third [green]), the potential return for any given level of risk increases.¹⁴ The importance of this concept should not be understated: for any given level of risk, greater returns are possible, or conversely for any given level of return, less risk is necessary, simply by adding hedge funds to a client’s portfolio.

¹⁴ For this purpose, we use the industry-accepted measure of risk, namely volatility in terms of standard deviation.



Let's make this more concrete by looking at an example. Using index data described above from January 1, 1990 through September 30, 2008, a traditional 50% growth-50% conservative portfolio would have returned 7.88% annually with 7.46% volatility. By adding hedge funds to the portfolio in the amounts noted below, the portfolio performance would have been as follows:

| | RETURNS (%) | VOLATILITY (%) | HEDGE FUNDS CONSTITUTE WHAT PORTION OF EACH BUCKET? | GROWTH/ CONSERVATIVE RATIO | KEY TAKE-AWAY VS. TRADITIONAL PORTFOLIO |
|---|-------------|----------------|---|---|---|
| Traditional 50/50 Portfolio | 7.88 | 7.46 | n/a | 50% growth/50% cons. (see blue dot on graphic) | n/a |
| Hedge Funds added to Traditional Portfolio – Similar Risk Level as Traditional | 9.39 | 7.46 | Directional – one-third of growth Non-Direct. – one-half of conservative | 60% growth/40% cons. (upper green dot on graphic) | 1.5% increase in returns at no material extra risk |
| Hedge Funds added to Traditional Portfolio – Similar Return Level as Traditional | 7.82 | 3.43 | same | 15% growth/85% cons. (lower green dot on graphic) | Reduced risk by more than half, with no material decrease in returns |

Starting from a 50/50 traditional portfolio, by adding hedge funds to the portfolio (in the proportions noted above), a client could have raised his or her return by 1.5% annualized, while incurring a similar amount of risk (measured by volatility). Thus, if a client had invested \$100,000 in both portfolios on January 1, 1990, the ending values on September 30, 2008 would have been \$415,000 for the traditional portfolio and \$538,000 for the portfolio with hedge funds. Alternatively, the client could have achieved almost the same return while lowering the risk (again, volatility) in his or her portfolio by more than half (i.e. 7.46% down to 3.43%).

Those are significant improvements in a client portfolio's return potential or risk profile. For that reason, particularly the potential to lower volatility, we recommend to clients to include directional hedge funds in the "growth" portion, and non-directional hedge funds in the "conservative" portion, of their portfolios.

One should note that the above discussion has been based on index returns only. At Convergent, we believe that we have historically selected (and will continue to select) hedge fund managers that are best of breed and that outperform their respective indices. For information on how Convergent recommended typical blends of directional funds-of-funds and blends of non-directional funds-of-funds would perform, please contact Convergent Wealth Advisors.



{ A Closer Look at the Hedge Fund Universe and Its Investment Strategies }

So far, in this Primer, we have discussed in some detail certain of the more salient features (such as fees, liquidity, etc.) of hedge funds; have reviewed the differences between single-strategy funds, funds-of-hedge-funds, and multi-strategy funds; have discussed briefly how we at Convergent organize the hedge fund universe into three broad categories; and have analyzed why we recommend to clients that they include hedge funds in their portfolios. At this point, it is appropriate to delve deeper into those categories and their constituent investment strategies.

{ Directional }

As a definitional matter, we employ “directional” as a label to denote investments that possess inherent market risk, but that have the potential for producing materially better risk-adjusted returns. Seen from a different perspective, the returns of these types of investments are related, in part, to the direction of movements of the broad equities (or fixed income) markets. We consider these strategies to be “return enhancers” rather than “risk reducers”, and thus belong in the “growth” portion of a client’s portfolio.

Long-Short Equity

Similar to their traditional long-only brethren, long-short equity fund managers invest predominantly in long positions in the equities markets. However, the ability to employ short sales distinguishes long-short managers from their long-only brethren by creating access to a greater opportunity set of investments (i.e. the ability to sell short stocks that are expected to decrease in value). By employing short sales, a long-short equity fund manager can hedge market risk or can enhance a portfolio’s profits by either adding alpha (by betting correctly on the stock sold short) or by earning interest on the cash proceeds of the short sale.

How long-short managers execute their strategy varies greatly. Some have a net long bias, others a net short; some employ significant leverage (both book and notional), while others do not; some are fundamental, bottom-up investors while others are more technical; some hedge market risk by employing futures contracts, others by short-selling. Even though the execution techniques of long-short equity managers may vary considerably, certain common characteristics can be identified:

- Leverage is employed by many long-short managers, but to a moderate extent (typically less than 2:1);¹⁵
- As a strategy, long-short equity has returns relatively higher than other hedge fund strategies, but with greater volatility; thus the strategy’s risk-adjusted returns are lower relative to other hedge fund strategies;
- Most long-short funds possess relatively higher correlations to the equities markets generally, due to the net long exposure of most funds, and thus the strongest, absolute performance will likely occur during bull markets; and

¹⁵ Discussion of leverage in this Primer means primarily the ratio of the value of assets to equity capital.



- Due to a manager's short selling, the strongest, index-relative, performance will likely occur during bear markets.

Finally, one often sees managers who focus on a particular geographic region or a sector (e.g., healthcare, technology, etc.) employ the long-short equity format.

GLOBAL MACRO

Global macro funds have the most flexibility of all hedge fund strategies; these managers can invest anywhere in the world, in various markets and in any type of security. These funds employ a top-down approach to identify markets and specific types of securities believed to be mispriced due to economic or political events in a given country or region. These fund managers believe that such events will result in changing trends in equities markets, interest rates, currency exchange rates, or commodity valuations, and thus these managers will take long or short positions designed to exploit the opportunities.

Again, certain characteristics common to global macro strategies may be identified:

- These funds sometimes employ material leverage (e.g., 2-3:1, but may go higher);
- Even though these funds do not uniformly hedge risk, these managers may employ diversification across categories (country, market, type of security and long or short) to reduce a fund's risk exposure; and
- Global macro funds tend to incur greater volatility, and thus tend to yield a lower risk-adjusted return, relative to other hedge fund strategies.

Ultimately, manager and underlying strategy selection is the paramount decision when deciding to allocate to the global macro strategy. This is due in part to the fact that significant leverage and the necessary directional bets place pressure on a manager to accurately anticipate future events, and in part to the fact that there is considerable variation of returns between global macro managers.

MANAGED FUTURES/CTAS

Managed futures strategies, implemented by commodities trading advisors or CTAs, involve buying and selling futures contracts on a variety of financial and hard assets.¹⁶ This actively managed strategy stands in contrast to a passive, long-only approach to commodities investing.

Regarding managed futures, one may make certain general observations, from a historic perspective, when reviewing the strategy:

¹⁶ A futures contract is an agreement to buy or sell an asset at a fixed price on a future date.



- Leverage (whether book or notional) employed has been materially greater compared to most other hedge fund strategies, but whether and to what extent a managed futures manager employs leverage has varied greatly from manager to manager; thus it must be analyzed on a case by case basis;
- Volatility of this strategy has been high relative to other hedge fund strategies;
- This strategy has outperformed traditional asset classes during bear markets and thus provides some relative protection during times of stress;
- Commodities futures have performed well during periods of high inflation and thus provide some inflation protection; and
- Most importantly, managed futures lack correlation (historically zero to slightly negative) to other asset classes, including other strategies typically employed by hedge funds.

It is this lack of correlation to other asset classes that, from the perspective of constructing a portfolio, primarily makes commodities investing attractive. This low correlation provides investors the opportunity to maintain or increase expected return in their portfolio while simultaneously decreasing overall portfolio risk.

{ Non-Directional }

We employ the term “non-directional” to denote investments strategies that we believe possess less inherent market risk and may, consequently, have reduced potential for returns, when compared to other hedge fund strategies. We also believe that these types of investments generate returns that, for the most part, are not dependent upon the direction of movements of the broad equities or fixed income market. Sometimes, these type of strategies are referred to as “absolute return” strategies because they are intended to achieve modest monthly returns, regardless of the performance of those markets. In general, we consider these strategies to be “risk reducers” rather than “return enhancers”, and thus they belong in the “conservative” portion of a client’s portfolio.

RELATIVE VALUE

Relative value arbitrageurs attempt to identify securities which are fundamentally or technically related and for which there is a disconnect in their relative valuation (i.e. one is undervalued and one over-valued relative to the other). Certain characteristics are common across these managers:

- Their returns possess relatively low correlation to the equity and bond markets;
- Because the disconnect which these managers attempt to exploit is typically small, these firms may employ significant leverage (high relative to most other hedge fund strategies) to make meaningful profits; and
- Risk management (and thus manager selection) is paramount in these funds due to the amount of leverage typically employed, which makes these funds more susceptible to suddenly-widening credit spreads, liquidity reduction and other anomalies present in times of market dislocations.



Fixed Income Arbitrage

Fixed-income arbitrage managers take offsetting (long and short) positions in related fixed-income securities and derivatives (both domestic and international) and seek to profit on the convergence of the pricing of those instruments. Even though the concept is straight-forward, the trades that fixed-income arbitrageurs employ to execute their strategies vary greatly, from the relatively simple to the extremely complex.

Compared to other hedge fund strategies, fixed-income arbitrage has had relatively lower returns, thus placing these funds in the lower half of the hedge fund universe. These returns, however, have been relatively consistent, and thus have produced attractive risk-adjusted figures. Accordingly, we view fixed-income arbitrage as a strategy whose primary function is that of a diversifier for a portion of the portfolio which may otherwise be allocated to bonds.

Convertible Bond Arbitrage

Similar to fixed-income arbitrageurs, convertible bond arbitrage funds attempt to exploit pricing anomalies between a company's convertible bonds and the related equity securities. They intend to generate profit typically by going long the convertible bond and shorting an appropriate portion of the related equity. If the underlying equity rises in value, the bond may be converted and liquidated at the inflated equity price, but if the underlying equity decreases in value, the short positions are designed to gain in value sufficient to offset some of the loss in the bonds' value. If the underlying equity does not significantly increase or decrease in value, the fund typically still profits from cash flow items such as the coupon on the convertible bond plus interest paid on the short sale proceeds (less any cash flow needed to cover dividends paid on the stock sold short).

Two additional items are worth noting about convertible bond arbitrage funds:

- The universe of convertible issuances is somewhat limited and thus capacity of these managers to execute their strategies is limited; and
- During the recent bear markets of 2000 through 2002, this strategy provided significant downside protection by continuing to perform in line with historic trends.

EQUITY-MARKET NEUTRAL

Equity market neutral as a strategy, like relative value, entails taking long and short positions in related instruments so that exposure to one or more market risks is eliminated. Profits in this strategy are generated when the performance of these related instruments behaves in the predicted manner, e.g. by reverting back to an identified mean.

The relationship between instruments, which the managers intend to exploit, is identified either by statistical modeling (hence the name "statistical arbitrage") or by fundamental analysis.



Moreover, like most arbitrage strategies, because the anomalies that these managers are attempting to exploit are typically minor, the majority of these funds employ significant leverage to produce material returns. Of course, significant leverage creates more exposure for these funds during times of market dislocations, when short squeezes can occur or simply when the return patterns of the identified instruments do not behave as predicted.

Because these funds seek to insulate themselves from significant unpredictable systematic changes by being neutral in the overall market, the returns of equity market neutral managers have historically been relatively predictable (i.e. exhibiting low volatility) and thus fairly robust on a risk-adjusted basis, compared to other hedge fund strategies.

{ Semi-Directional }

We employ the term “semi-directional” to denote investments strategies that we believe possess inherent market risk less than directional but greater than non-directional strategies. They have potential for material returns, when compared to other hedge fund strategies, but with more idiosyncratic risk than non-directional strategies. It is often the case that, although we categorize certain investment strategies as semi-directional as a starting matter, we ultimately include an actual fund in the directional or non-directional portion of a client’s portfolio due to characteristics that are peculiar to that particular fund.

EVENT DRIVEN & SPECIAL SITUATIONS

Event Driven strategies focus on identifying securities that can benefit from extraordinary corporate transactions, including for example, bankruptcies, re-capitalizations, takeovers, reorganizations, mergers, liquidations, etc. Primarily, managers will identify events through fundamental research, but those events will vary with the business/market cycle.

Risk Arbitrage (aka Merger Arbitrage)

A common example of an event driven strategy is merger arbitrage where a manager will seek to take offsetting positions in the stock of the acquirer and target and will profit if the merger proceeds in accordance with the manager’s prediction (by shorting the acquirer and going long the target, or vice-versa if the manager predicts the merger’s failure).

Compared to relative value or market neutral strategies, merger arbitrage possesses a higher correlation to equity markets in down equity markets (where transactions are more likely to fail to materialize), but relatively low correlation during flat or up markets; correlation to fixed income markets is negligible. Accordingly, risk-adjusted returns for this strategy have historically been relatively high compared to other hedge fund strategies.

To a large extent, the risks of this strategy are extrinsic to a fund’s books. That is, legal, regulatory, financing, and deal flow present the primary risks to the strategy, whereas customary market movements, leverage and liquidity typically do not. Indeed, the amount of leverage employed by event driven funds is average compared to other hedge fund strategies.



By its nature though, this strategy experiences some short periods of loss due to market dislocations and the loss of deals. However, to avoid possible market risk during these periods, funds may often hedge by shorting securities or buying index options, and will diversify within specific types of events and across various events to further reduce a fund's risk.

Distressed Securities

Distressed securities managers can be defined as those who are long the securities of companies that have recently experienced (or are expected to soon experience) distress and, therefore, those securities are fundamentally and significantly undervalued. How a manager chooses to execute his or her strategy, however, depends on the manager's style, whether it be investing in bank debt, corporate debt, trade claims, common stock, preferred stock and warrants, etc.

Again, certain observations may be made about distressed securities as a strategy:

- On average, the strategy employs significantly less leverage compared to other hedge fund strategies;
- The performance of this strategy is counter-cyclical to merger arbitrage, and opportunities are identified early in a distress period and typically come to fruition (if at all) when that distress period passes, for example, when the economy comes out of recession;
- Correlations of this strategy to the broad equity markets is somewhat higher than other hedge fund strategies because of the somewhat long nature of the investments;
- Sufficient capital and liquidity management is a primary concern of this strategy, because flights to quality can cause its investments to be severely re-priced during those periods; and
- Returns of this strategy are relatively robust compared to other hedge fund strategies, but at the cost of somewhat higher relative volatility; however, volatility is lower relative to the broad equities markets (due in part perhaps to infrequent valuations of the underlying investments).

Ultimately, like global macro, manager selection is paramount when deciding to allocate to the distressed securities strategy due to the skill needed by a manager to value properly the investments, as well as any collateral, and to predict properly the amount of time needed to realize value from the investments.

Special Situations

Special situations is a catch-all category for unique investments that do not readily fit into other strategy categorizations. Investments are typically long-oriented investments in less liquid opportunities, such as private real estate and development deals, mining and mineral investments, and other operating businesses that typically generate a significant cash flow. Investments are often made with third-party operating specialists, where the hedge fund is not responsible for day-to-day operations of the business. Investments are mostly opportunistic in nature and generally are made with a multi-year time period in mind.



{Beyond Mere Labels }

The above discussion of the various hedge fund strategies, particularly the categories and labels employed, is inherently an over-simplification and is designed to provide a framework to facilitate the understanding of those strategies. That discussion is neither an exhaustive discussion of the various strategies nor is intended to imply, for example, that investing with CTAs generates the same risks and rewards as owning a diversified portfolio of long-only equities.

What is important is that, when we at Convergent analyze a hedge fund manager, we believe that in addition to the label assigned to a manager's strategy, one must focus on other metrics, both as a historic matter and relative to a manager's peers, such as (but not limited to):

- Leverage;
- Gross exposures both long and short, as well as net exposures;
- The type of securities managers are using to execute their strategies;
- Volatility;
- Percentage of gain and loss months;
- Extent of negative returns for any particular time period;
- Make-up and stability of a fund's investor base; and
- Liquidity provisions and use of side pockets.

Ultimately, the investment strategy of any particular fund, *as it is in fact executed*, may vary from the default categorizations discussed above, either from the default strategy description or risk categorization (equity-like vs. fixed-income like, etc.). Nevertheless, this is the nature in investing with a rather heterogeneous (and some would say idiosyncratic) group of investment managers.

{ Conclusion }

Despite (or perhaps because of) the heterogeneous and even idiosyncratic characteristics of hedge fund managers, those managers have historically added significant risk-adjusted value over and above traditional active investment managers. We believe that hedge fund managers will continue to add such value to client portfolios, especially during periods of stress in the general markets, and thus can serve as particularly useful complements (for appropriate clients) to a client's traditional fixed income and equities allocations.



{ Appendix A }

SUMMARY OF FORECASTING METHODOLOGY

Convergent uses a forecasting methodology to calculate these forward looking forecasts. The three key inputs into the optimization framework include expected returns for the asset classes to be modeled, expected risks (volatility) and pair-wise correlation coefficients among those asset classes (asset classes with low correlation provide portfolio diversification). We generate forward-looking return forecasts for the modeled asset classes that are linked to projections of economic growth, interest rates and consensus earnings forecasts, taking into consideration current market valuations as well as our longer-term global views. Risk and correlation projections are based largely on historical observations and relationships. For this analysis, we have modeled a ten-year period, commencing in 2008 and ending in 2017 (we feel that a ten-year horizon is an appropriate time-frame for evaluating existing and potential portfolios as it is long enough for a policy portfolio to be reasonably implemented and held but is short enough for projected dollar amounts and inputs to still be meaningful). At the end of this period, we assume that the portfolio continues to be managed and is not liquidated, nor are any accumulated, applicable unrealized capital gains taxes paid at the end of the period. In order to better evaluate the risk of the potential portfolios, we utilize a Monte Carlo simulator to provide probability estimates. These probability distributions allow us to evaluate risk of a particular asset mix in a number of different manners that a client may be more familiar with, beyond just projecting their standard deviation. A detailed description of the methodology of deriving these forecasts, which are updated on a quarterly basis, is available upon request.

{ Notes and Disclosures }

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