

130/30 Position Paper

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Fund Evaluation Group[®]
investment advisors

130/30 Position Paper

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This paper will be divided into the following five sections and a conclusion.

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Summary

As equity markets become more efficient, managers are seeking new strategies that can deliver consistent alpha (excess return over their benchmarks). Strategies such as 130/30 portfolios, which are among the most recent and most discussed, are receiving significant asset inflows. Investors are increasingly considering 130/30 strategies as an alternative to long-only portfolios because:

1. Managers can take larger active weights in individual holdings, specifically when underweighting stocks
2. Assuming the manager is skillful, the risk-adjusted excess returns should be higher than a long-only strategy
3. The benefits of constrained shorting is palatable to some investors with limited experience investing in long/short equity strategies

Although the ability to short stocks can benefit a portfolio, these strategies have some significant drawbacks, which include:

1. Managers lacking experience shorting stocks
2. Identifying short positions may require a different investment process and additional operating and technology commitments than long-only strategies
3. The strategy is in its infancy and evidence of success is limited
4. A majority of 130/30 strategies focus on large cap stocks, one of the more efficient areas of the market
5. For fundamental-based managers, implementation of 130/30 strategies requires a substantial change to their investing process

Given the questions surrounding 130/30 strategies, FEG believes institutional investors should consider allocating to long/short hedge funds and portable alpha strategies, as these funds eliminate some of the drawbacks associated with 130/30 strategies.

130/30 Defined

Although most frequently characterized as 130/30 strategies, investors may recognize these as:

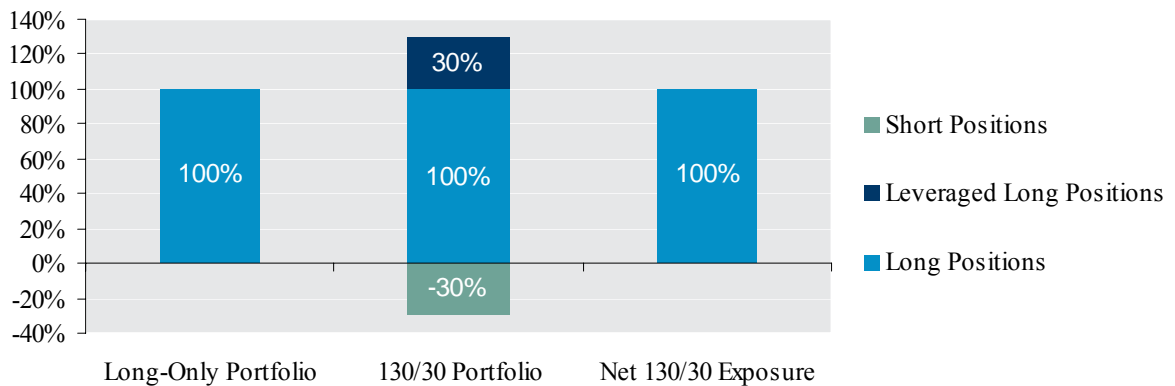
- 120/20 or 140/40 strategies
- constrained long/short equity strategies
- enhanced active equity strategies
- extended equity portfolios

Regardless of what investors call the strategy, the intention is to allow managers to meaningfully

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underweight stocks relative to the appropriate benchmark by introducing limited shorting to the process and investing the proceeds in long positions to generate additional alpha. By removing the constraints of long-only portfolios, investment managers are better able to implement their insights on the expected return of stocks.

Although the managers employ different processes to generate the stocks they hold long and short, each strategy takes a short position in a specified percentage of the portfolio (e.g., 30%) and goes long in the same percentage (e.g., 30%). Thus, a 130/30 strategy will have a 30% short exposure, which is reinvested in the long portfolio to generate a 130% long exposure. As illustrated in the chart below, the 130/30 portfolio structure, however, will maintain a 100% net equity exposure to the market, similar to a long-only manager.



The use of leverage in a 130/30 strategy is a key difference from a long-only portfolio. There is a risk associated with the use of leverage because an investor is reinvesting funds that were generated from selling short securities. Instead of buying \$1,000,000 of stock in a long-only portfolio, in a 130/30 strategy, \$1,000,000 is invested in long positions, \$300,000 worth of stock is borrowed and sold short, and the \$300,000 in proceeds is invested to extend exposure in the long portfolio (refer to the table below). The use of leverage in the portfolio can be beneficial should the manager exhibit skill in selecting stocks to short and long. Leverage, however, can magnify the consequences of a manager's poor selections.

Cash Flows for a \$1,000,000 Allocation to a 130/30 Portfolio

		Long-Only 100/0	130/30
Assets used to purchase long portfolio	→	-\$1,000,000	-\$1,000,000
Assets generated from short positions	→	-	\$300,000
Short proceeds reinvested in long portfolio	→	-	-\$300,000
Net Equity Exposure		100%	100%

The structure of 130/30 strategies is intended to reflect the risk of the benchmark. Rather than allowing the beta exposure to fluctuate based on the number of long positions relative to the number of short positions in a long/short hedge fund, 130/30 portfolios target a beta of 1.00 to mimic the risk characteristics of the benchmark. Not all 130/30 strategies will have betas of exactly 1.00 at all times,

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but they will consistently be in a range close to 1.00. Certain managers constrain beta within 0.90 to 1.10, while other managers maintain a beta within a tighter range of 0.95 to 1.05. In addition to managing risk by constraining beta, managers also monitor capitalization and sector biases, which can significantly affect risk relative to the benchmark.

130/30 History and Development

Capitalizing on the ability to short stocks is not a new idea, as the first hedge fund used shorting and was created in 1949 by A.W. Jones and these strategies have become more popular over the past 10 years. The structure of 130/30 strategies, however, is relatively new. Much of the research behind 130/30 strategies, and the rationale for removing the long-only constraint on equity managers, centers on research conducted on the information ratio of various portfolio structures. The information ratio measures the excess return generated by an investment manager to the amount of risk the manager takes relative to a benchmark (tracking error).

$$IR_a = \frac{\bar{R}_a - \bar{R}_m}{\sigma_{ER}}$$

Where:

- IR_a = Information Ratio of Asset
- R_a = Annualized Asset Return
- \bar{R}_m = Annualized Benchmark Index Return
- σ_{ER} = Annualized Standard Deviation of Excess Return (Tracking Error)

In 1989, Richard Grinold introduced the fundamental law of active management that detailed how to measure the efficiency of a manager, as measured by the information ratio.¹ Roger Clarke, Harindra de Silva, and Steven Thorley revisited this research and published *Portfolio Constraints and the Fundamental Law of Active Management*. They determined Grinold's work did not factor in portfolio constraints and their impact on the information ratio. To address this issue, Clarke, de Silva, and Thorley's research included a measure of a manager's ability to forecast future securities' returns and the ability then to implement investment ideas. They termed these measures as follows:

- Information coefficient: Ability to forecast future returns
- Transfer coefficient: Active weights (manager's investments that differ from the benchmark)

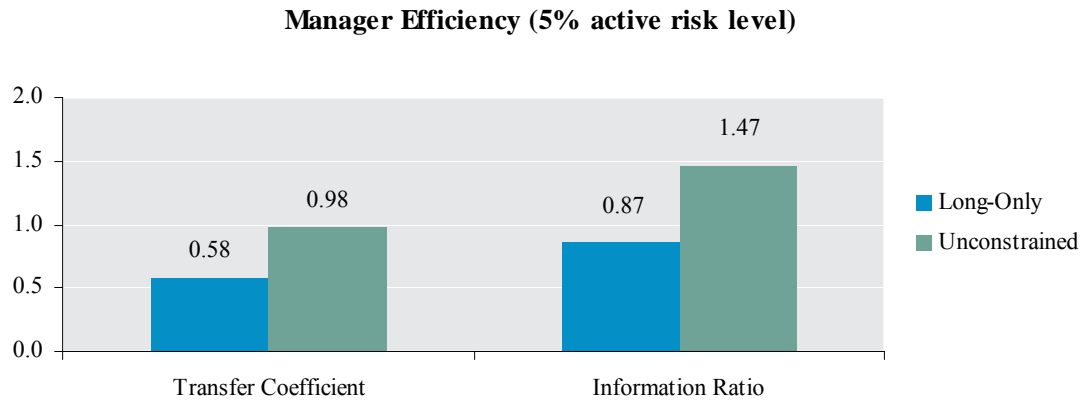
They also presented an example of an unconstrained portfolio and its transfer coefficient relative to the same portfolio with various constraints. The results of this example follow:

- The long-only constrained portfolio had a lower transfer coefficient (0.58) and a lower information ratio (0.87) for the same level of active risk (tracking error) - the risk due to active management decisions in a portfolio (refer to the following chart).

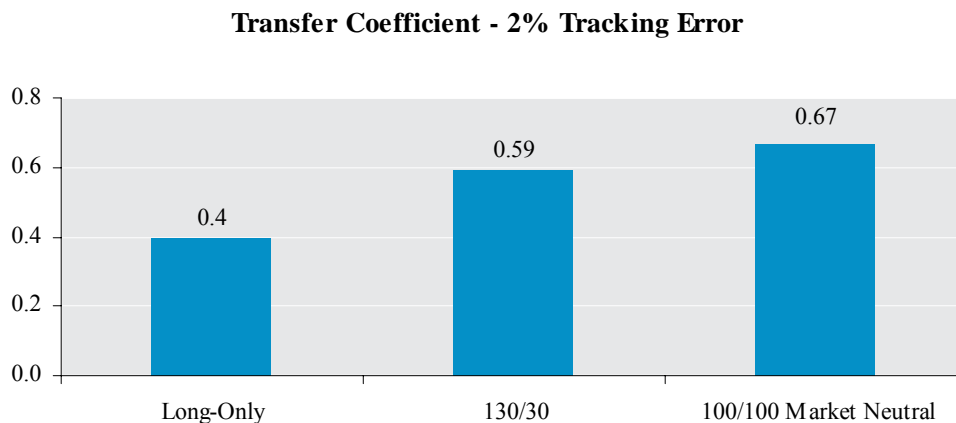
Page 4 ¹Grinold, Richard C. "The Fundamental Law of Active Management." *Journal of Portfolio Management* 15, no. 3 (1989).

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- The unconstrained portfolio (with the ability to short stocks) had a higher transfer coefficient (0.98) and a higher information ratio (1.47) relative to the long-only portfolio (refer to the following chart).²



This research illustrates that as the long-only constraint is loosened, skilled equity managers should be able to generate better risk-adjusted returns, as measured by the information ratio. Further research has been conducted by investment managers to determine the optimal short position for these strategies. For example, the chart below illustrates that for a 2% tracking error, the majority of the increase in the transfer coefficient from a long-only portfolio (0.40, the smallest transfer coefficient) to a market-neutral strategy (0.67, the largest transfer coefficient) was captured by a 130/30 structure (0.59).³ The increase in the transfer coefficient, therefore, generated a higher information ratio for 130/30 and market-neutral strategies than a long-only strategy.



Other managers have generated similar research based on each manager's investment process to determine the optimal structure for its portfolio. Most of this research has concluded that somewhere near 130/30 provides the largest marginal increase in the transfer coefficient. A 100/100 market neutral or unconstrained hedge fund maximizes the information ratio and transfer coefficient for a truly skillful manager.

Page 5 ² Clarke, Roger; Harindra de Silva, and Steven Thorley. "Portfolio Constraints and the Fundamental Law of Active Management." *Financial Analysts Journal* (September-October 2002).

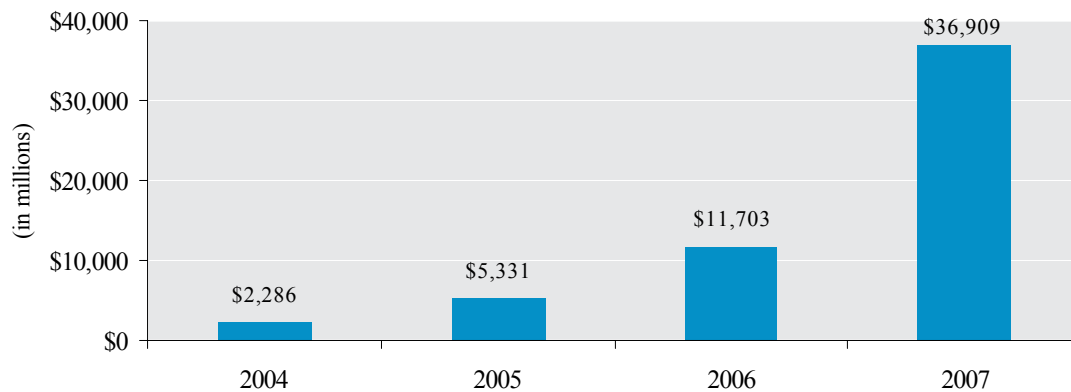
³ Kroll, Bud; Danielle Trichilo, and Jeffery Braun. "Extending the Fundamental Law of Investment Management." (2005).

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Growth in 130/30 Funds

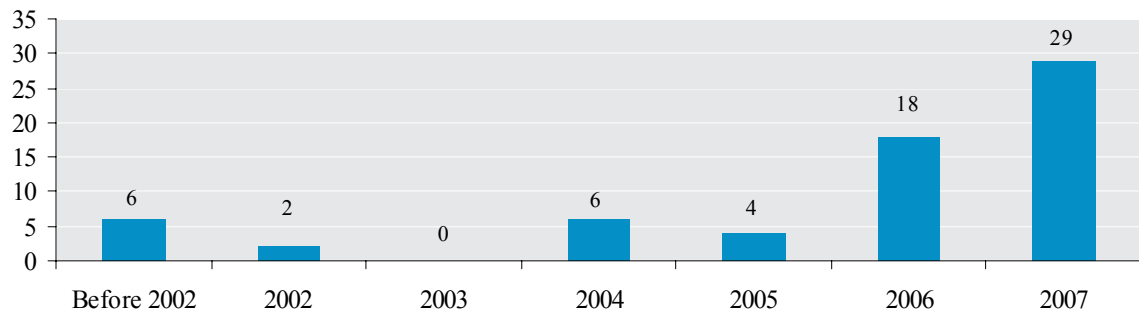
The research that demonstrated the improved efficiency of returns that can be expected from relaxing the long-only constraint has spurred tremendous growth in 130/30 fund offerings. According to data reported in the eVestment Alliance database, asset growth for managers who report to the database in U.S. 130/30 offerings increased from \$2 billion as of December 2004 to nearly \$37 billion as of December 2007.

Growth in 130/30 Assets



In addition to the increased level of assets flowing into domestic 130/30 funds, the number of offerings has also grown substantially. Since 2003, the number of offerings populating the 130/30 universe in the eVestment Alliance database has increased from 8 to 65.

Growth in 130/30 Offerings



Much of this growth has been driven by traditional long-only managers offering the strategy, but hedge fund managers are also entering the 130/30 market. Hedge fund managers introducing 130/30 portfolios are taking advantage of existing skills with long/short equity or market neutral strategies to compete against traditional long-only managers.

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The demand for 130/30 offerings has come primarily from those investors, pension plans for instance, who avoided hedge funds in the past. These investors traditionally avoided or were restricted from investing in hedge funds due to concerns about leverage, high fees, and the fact hedge funds are difficult to benchmark.

Many institutions investing in 130/30 strategies have had little, if any, investment in long/short equity hedge funds. For a considerable number of investors, this is their first experience with shorting and a potential step toward investing in long/short equity hedge funds. Because these investors want to maintain portfolio risk characteristics similar to long-only strategies, the following comparison mainly focuses on the advantages and disadvantages of a 130/30 strategy relative to a long-only equity portfolio.

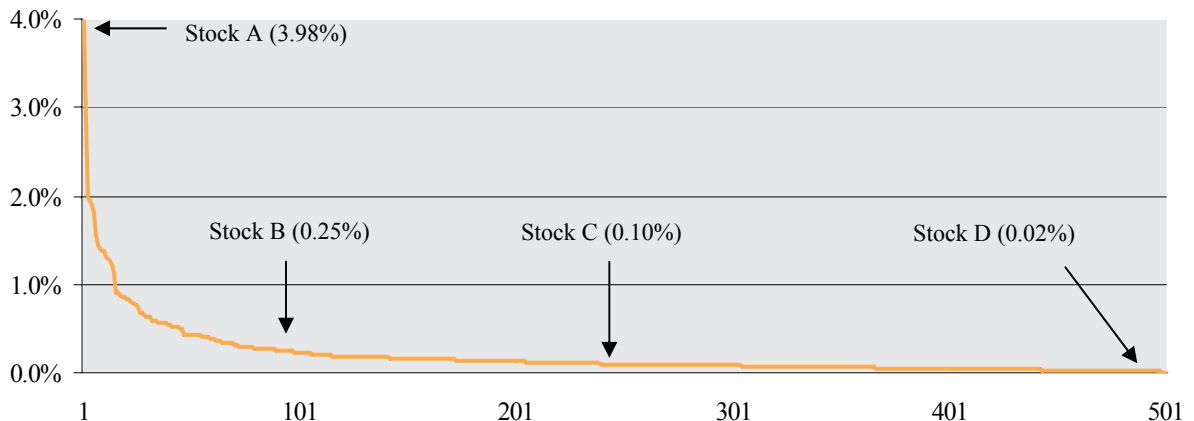
Advantages

FEG believes that there are three clear advantages to the 130/30 structure versus a long-only portfolio, which are described below.

1. Managers can take larger active positions in the smaller index constituents

Investment managers have the ability to meaningfully express negative views on specific stocks by taking larger active weights relative to the benchmark in a 130/30 fund than in a long-only strategy. Long-only portfolios limit active equity managers to underweight stocks only by the weight of that stock in the index. For example, large cap managers can underweight approximately 80% of the stocks in the S&P 500 Index by only 0.25% points or less.⁴ Through 130/30 portfolios, managers have a greater ability to express their negative views on individual companies by shorting those stocks within the constraints of the 130/30 structure. The ability to short stocks can allow 130/30 managers to better express negative opinions and views on companies, which in a long-only portfolio could only be underweight by their weight in the benchmark (refer to the chart below).

S&P 500 Company Weights



Page 7 ⁴ Data is using the State Street S&P 500 Index as a proxy for the S&P 500 Index as of December 31, 2007. Tracking error for the portfolio historically is 0.03% or below.

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2. Assuming managers are skillful, the information ratio for a 130/30 strategy should be higher relative to a long-only portfolio

Investors should expect a higher information ratio for 130/30 portfolios relative to long-only portfolios, while maintaining a beta of approximately 1.00 and 100% net equity exposure. The expected improvement in the efficiency of the portfolio is a result of loosening the long-only constraint. The ability to sell stocks short in a 130/30 strategy increases the breadth of active weights, as Richard Grinold illustrated in *The Fundamental Law of Active Management*. Grinold demonstrated the information ratio is driven by two factors, manager constraints and manager skill. A long-only constrained portfolio hinders a skillful manager from fully expressing negative views on certain stocks, thus preventing a more efficient portfolio structure.

3. Investors may prefer constrained shorting if they lack experience with long/short strategies

Some investors have been hesitant to utilize long/short equity strategies due to the use of leverage, higher fees, and potential for limitless losses from increasing values of shorted stocks. The 130/30 strategy provides investors a constrained portfolio that should have similar characteristics to long-only portfolios.

Disadvantages

Although 130/30 strategies have some clear advantages relative to long-only portfolios, there are also certain disadvantages, which are described below.

1. Lack of experience with shorting stocks

Many of the traditional long-only managers introducing 130/30 strategies do not have significant experience shorting stocks. When selling stocks short, experience is important because of the different effect leverage can have on a portfolio. In a portfolio of stocks sold short, if the price movement goes against the manager, the short positions become a larger part of the portfolio and theoretically there is no limit to the amount of the loss. Whereas in a long-only portfolio, if a stock moves against the manager, the exposure to the stock declines and only the amount of the initial investment can be lost.

2. A manager's least attractive long ideas are not necessarily the best short ideas

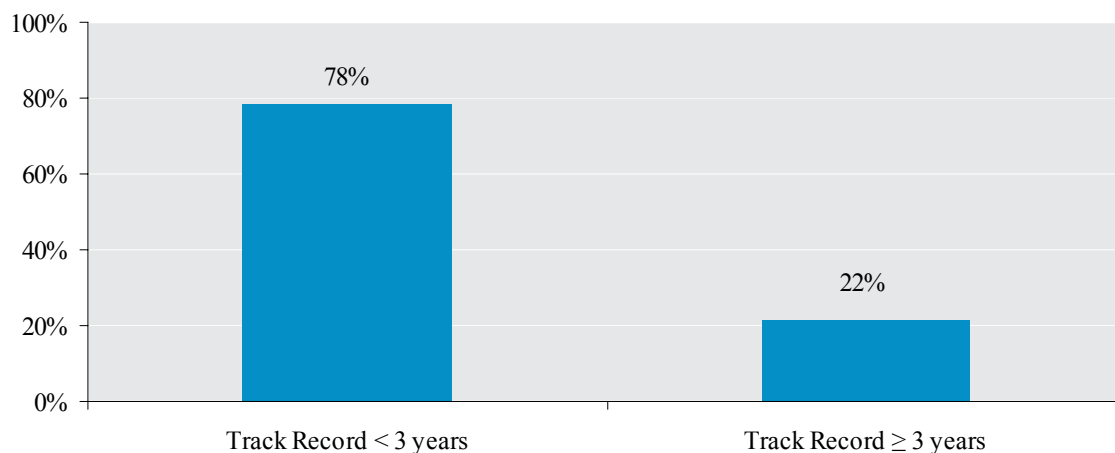
In many cases, investment managers use the same process to identify both long and short positions for 130/30 strategies. The majority of long-only managers that initially entered the 130/30 universe utilized quantitative processes that ranked every stock in the universe and identified potential short positions using the same process. Even though a long-only manager who uses a quantitative process can identify stocks that are unattractive based on its model, these stocks are not necessarily securities that the manager should sell short. Merger and acquisition activity is a good example of a factor that is difficult to quantify and can negatively affect a stock sold short. If a company is acquired, typically it is at a premium to the current stock price, which negatively impacts the short positions in that stock.

3. A majority of 130/30 strategies have limited track records

Investors must rely heavily on backtesting and hypothetical research for many 130/30 strategies, due to the limited track record for most managers. Of the 130/30 managers in the eVestment Alliance database, almost 80% have track records of less than three years (refer to the following

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chart). Because these are relatively new strategies, understanding how each manager constructs its 130/30 portfolio is important. An investment manager should have a clearly defined process for identifying both long and short positions. A clearly defined and consistent process should allow investors to understand how the portfolio should perform in different market conditions.



4. Most 130/30 strategies focus on large cap stocks

Over the long-term, indexing the large cap exposure in a portfolio has demonstrated higher returns than the majority of active managers. This is evident when comparing the S&P 500 Index returns to large cap equity managers over rolling 10-year periods. The S&P 500 Index consistently performed near the top quartile of large cap equity managers over these time periods, which indicates long-only managers have difficulty outperforming the S&P 500 Index.⁵ For the managers that underperformed the S&P 500 Index, constrained shorting could amplify the underperformance. Management fees for 130/30 strategies also tend to be higher than long-only strategies, which could hinder a manager's ability to generate returns in excess of the S&P 500 Index net of management fees. The average fee for large cap 130/30 strategies who reported to the eVestment Alliance database was 0.81% versus 0.71% for large cap long-only managers. Less efficient areas of the market, such as international and small cap, may offer better opportunities to generate excess returns through a 130/30 strategy. The key concerns in these markets, however, are whether the data is good enough to utilize, whether the manager could research all of the stocks, and whether the trading and shorting costs would dilute any benefits.

5. For fundamental-based managers, implementation of 130/30 strategies requires a substantial change to their investing process

Rather than a quantitative research process, fundamentally-driven managers use a qualitative process, which generally does not identify a stock that could add value by selling it short. This has created a more difficult situation for fundamental-based managers to develop a 130/30 strategy. Much of the research these managers conduct for their long-only strategies is focused on finding securities that are potential buy candidates rather than identifying unattractive stocks that would be good shorts. In some cases, a fundamentally-driven manager will rely on meetings with management to gain insight on a specific company and gaining access to management can be more difficult if it is understood the manager is planning to sell the stock short.

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Conclusion

Despite the increased interest in and rapid growth of 130/30 strategies, FEG believes this approach is not the optimal solution for an institutional investor. Many 130/30 investment managers lack experience shorting stocks, lack of a significant track record managing a 130/30 strategy, and are focused in a more efficient area of the market by investing in large cap stocks. Additionally, we believe truly skilled managers typically prefer minimal constraints because the investment process can be managed free from any restrictions, which could limit their ability to add value. In lieu of allocating to a 130/30 strategy, institutional investors should consider allocating to long/short equity hedge funds and portable alpha strategies, as these reduce constraints even further and allow skillful managers to better implement their investment ideas.

Glossary

Market Neutral Strategy: A strategy involving investments in offsetting long and short positions in equity securities structured to neutralize the impact of any market movements and thus capture pure security selection skill. Often this strategy is “equitized” by pairing it with exposure to an equity index to produce enhanced index returns.

Incentive Fee: The fee on new profits earned by the fund for the period. Based on the terms of the fund, it may not apply until performance has surpassed a hurdle rate or high-water mark. This incentive fee generally ranges between 10% and 30%.

Information Ratio: Measurement of the excess return generated by an investment manager to the amount of risk the manager takes relative to a benchmark (as measured by tracking error).

Leverage: The amount of assets owned or controlled by the fund divided by the amount invested. Most hedge funds incorporate a modest level of leverage into their strategies.

Net market exposure: A measure of the percentage of investment capital exposed to directional market risk. For example, a long/short equity fund that is 100% long and 25% short will have a “net” exposure of 75%. A more accurate measure of market exposure adjusts for relative betas.

Portable alpha: A strategy that invests a portion of capital in derivative contracts to replicate an index and excess capital is invested in a portfolio to provide “alpha” (excess return over the cost to replicate the index, LIBOR)

Short Selling: Investment structures that benefit from a decline in stock price. The investor must borrow the securities he intends to sell short and is responsible for all dividend payments.

Tracking Error: The amount of risk the manager takes relative to a benchmark (also known as active risk).

Transfer Coefficient: Measurement of the correlation of forecasted returns and active weights in the portfolio.

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