Causeway

Causeway Capital Management

# What Happened to Hedge Fund Alpha?

October 29, 2014

**Causeway Capital Management LLC**
11111 Santa Monica Blvd.
15th Floor
Los Angeles, CA 90025
www.causewaycap.com

# Causeway Capital Management

## About Causeway

- > Independent institutional investment manager
- > Founded in June 2001 and headquartered in Los Angeles, California
- > Focus on global equity strategies

| STRATEGY | FUNDAMENTAL | QUANTITATIVE |
|---|---|---|
| International Value | ✓ | ✓ |
| Global Value | ✓ | ✓ |
| Emerging Markets | ✓ | ✓ |
| International Small Cap | ✓ | ✓ |
| Global/International Opportunities | ✓ | ✓ |
| Global Absolute Return | ✓ | ✓ |

- > 68 employees including 23 investment professionals
- > Approximately $35 billion assets under management (as of 9/30/14)

# Causeway Capital Management

## Recent Hedge Fund Research

*Available at [www.causewaycap.com/insights/](www.causewaycap.com/insights/)*

1. “Measuring Short-side Performance”
2. “Turning a Negative into a Positive: The Benefits of Combining Diverse Alpha Steams”
3. “The Relationship Between Leverage and Risk”
4. “Beyond Beta: Using Correlation to Evaluate Long/Short Strategies”
5. “What Level of Incentive Fees Are Hedge Fund Investors Actually Paying?”

# Causeway Capital Management

## Today's Speakers

### *SARAH KETTERER*

- Co-founder and CEO of Causeway
- Fundamental Portfolio Manager
- Education: Dartmouth Tuck School of Business (MBA), Stanford University (BA)

### *DUFF KUHNERT, CFA*

- Quantitative Portfolio Manager
- Education: Dartmouth College (BA)

### *RYAN MYERS*

- Quantitative Research Associate
- Education: Stanford Graduate School of Business (MBA), Harvard University (BA)

# What Happened to Hedge Fund Alpha?

## Discussion Topics

**Decline in Hedge Fund Alpha**

- How we measure alpha
- Hedge fund “alpha” has declined meaningfully since early 2000s
- Increased market efficiency - caused by market and regulatory factors?

**Risk Premia and Regime Dependence**

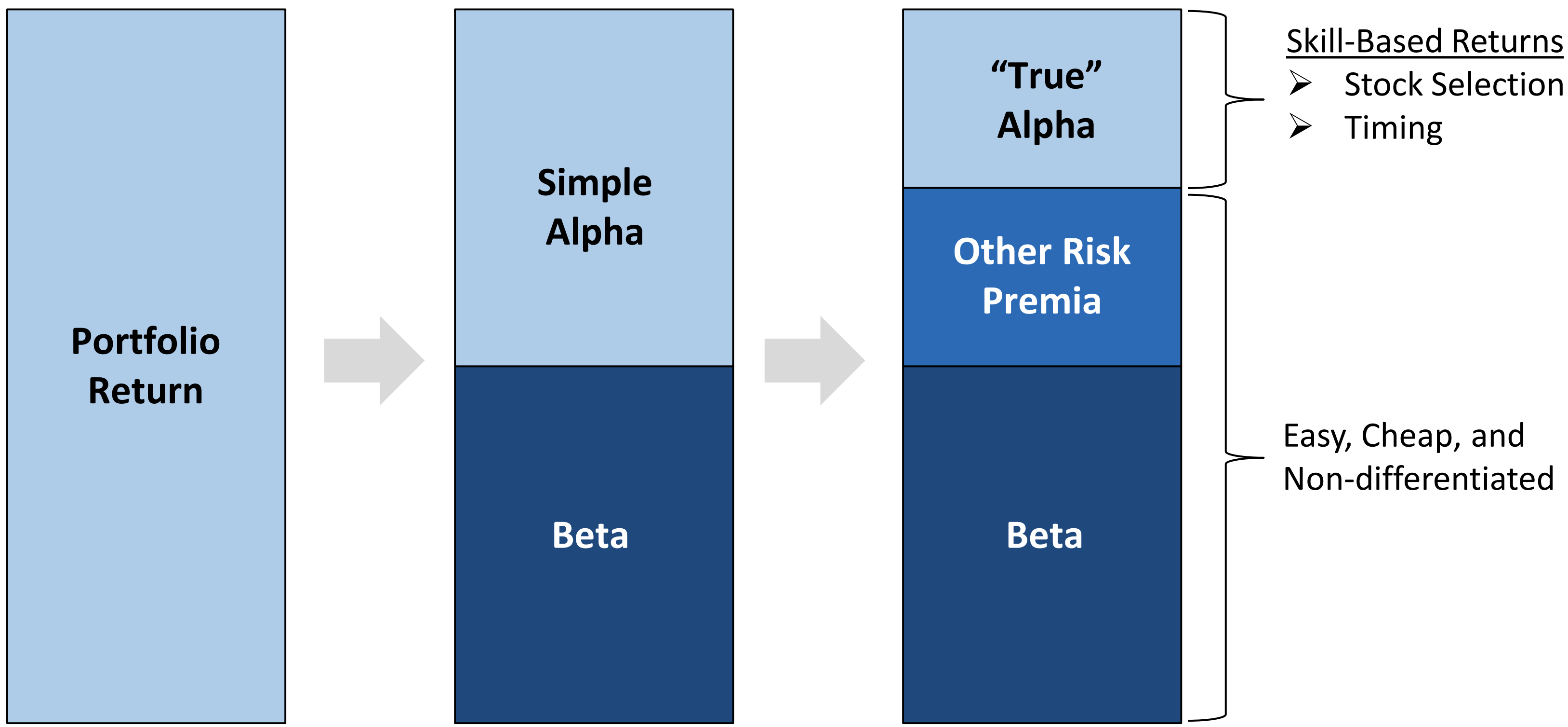
- Substitution of risk premia for alpha to produce returns
- Absolute return strategies should provide positive returns in all market environments
- Over-reliance on risk premia has created regime dependence

**Beta vs. Correlation and Drawdown Implications**

- Beta can mask high correlation to equity market and other risk premia
- Common risk factor exposures have driven correlations higher
- High correlations have led to synchronous drawdowns

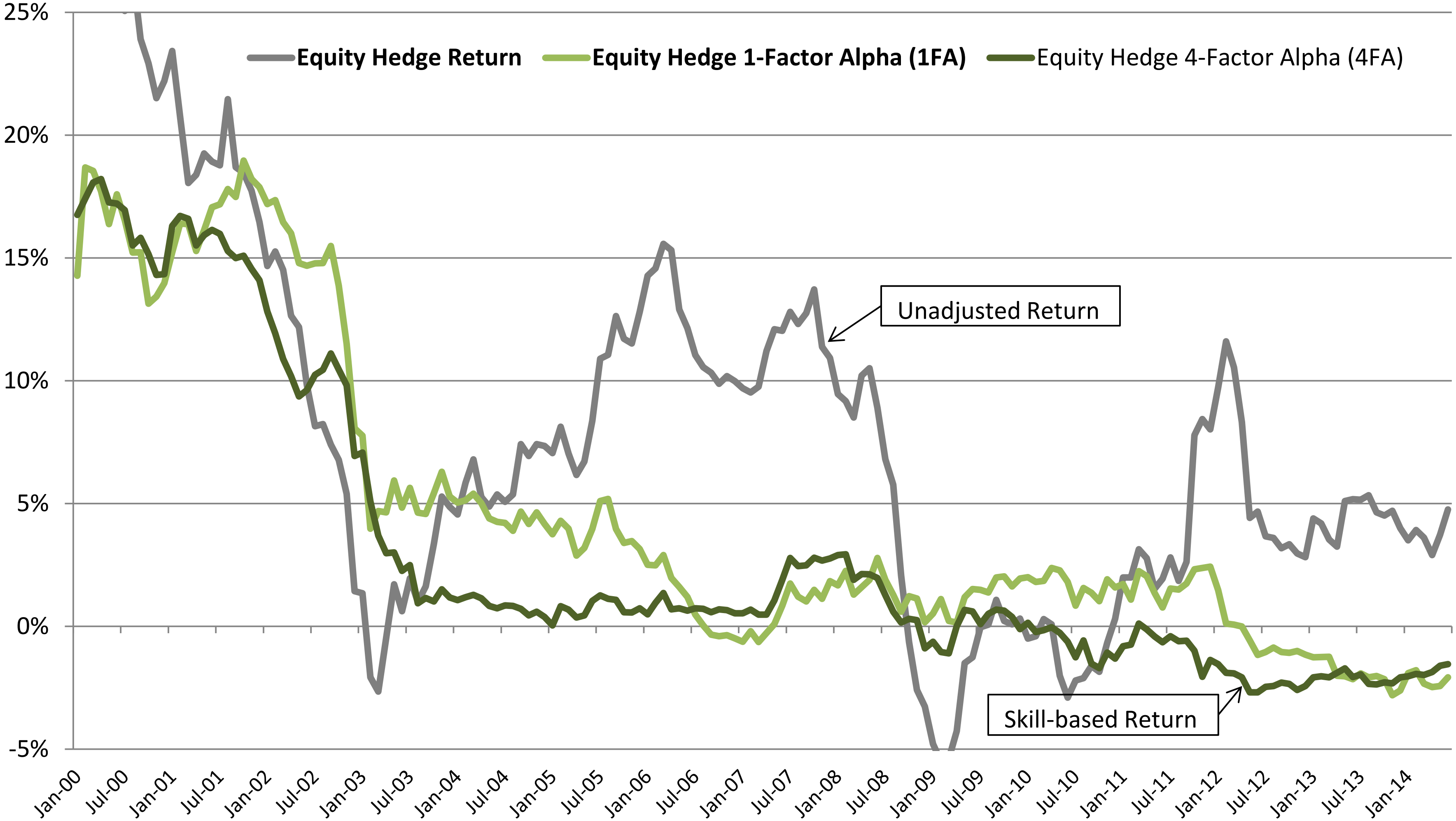
# What Do We Mean By “Alpha”?

***“Alpha” is a proxy for skill. Thus, it should isolate skill-based returns by excluding the portion of returns attributable to systematic risk premia.***



# Hedge Fund Alpha Has Declined Since Early 2000s

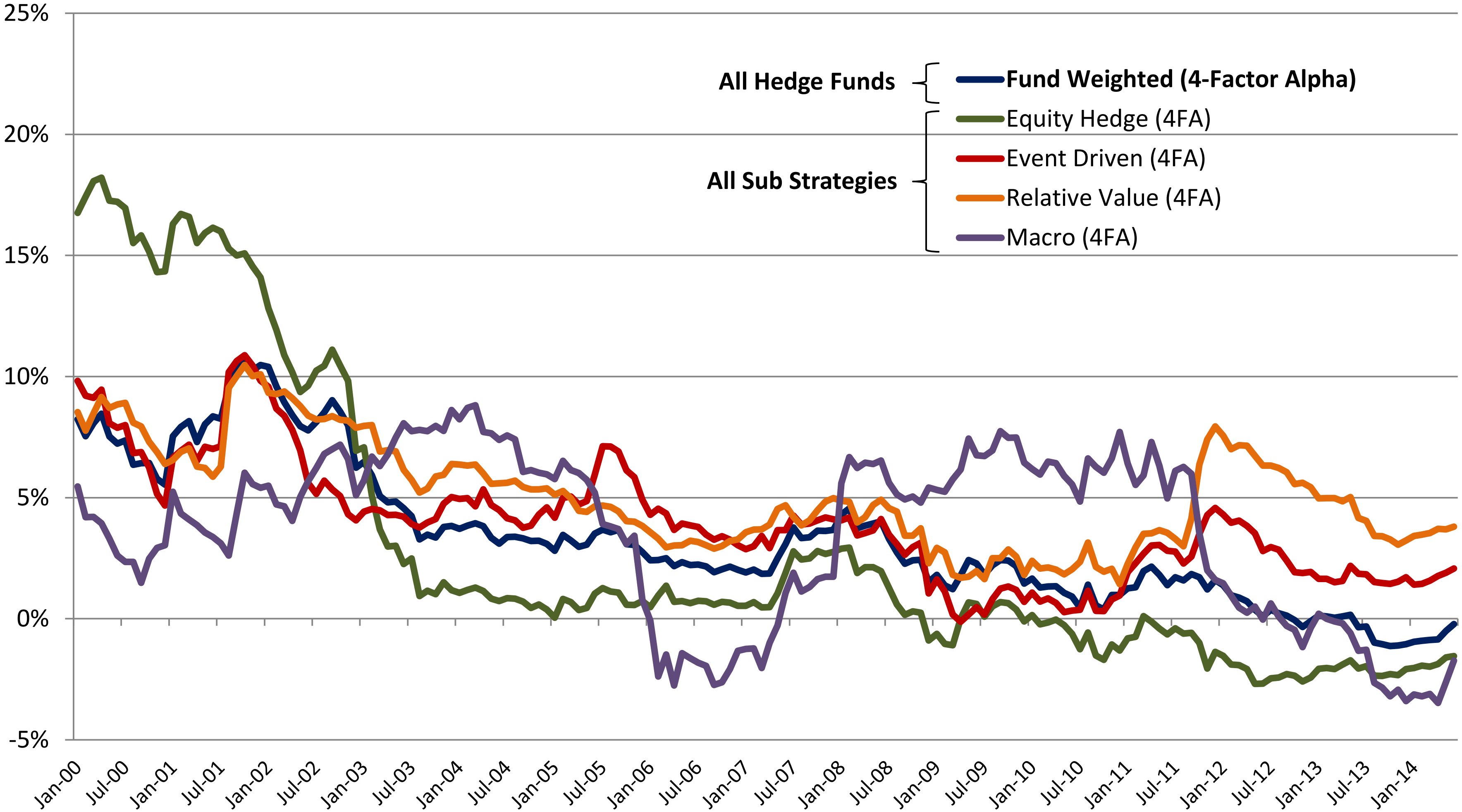
## HFRI Equity Hedge Trailing 36-Month Annualized Return/Alpha Comparison (vs. MSCI World)




*Note: 36-month trailing regression windows. One factor adjusts for beta to MSCI World. Four factors adjust for betas to MSCI World, Size, Value, and Momentum. Assumed risk-free rate was the monthly total return of the BofA Merrill Lynch 3-Month U.S. Treasury Bill Index. See attached important disclosures. Past performance is no guarantee of future performance. Source: HFRI, MSCI, FactSet.*

# Hedge Fund Alpha Has Declined Since Early 2000s

HFRI Category Annualized Alpha Comparison

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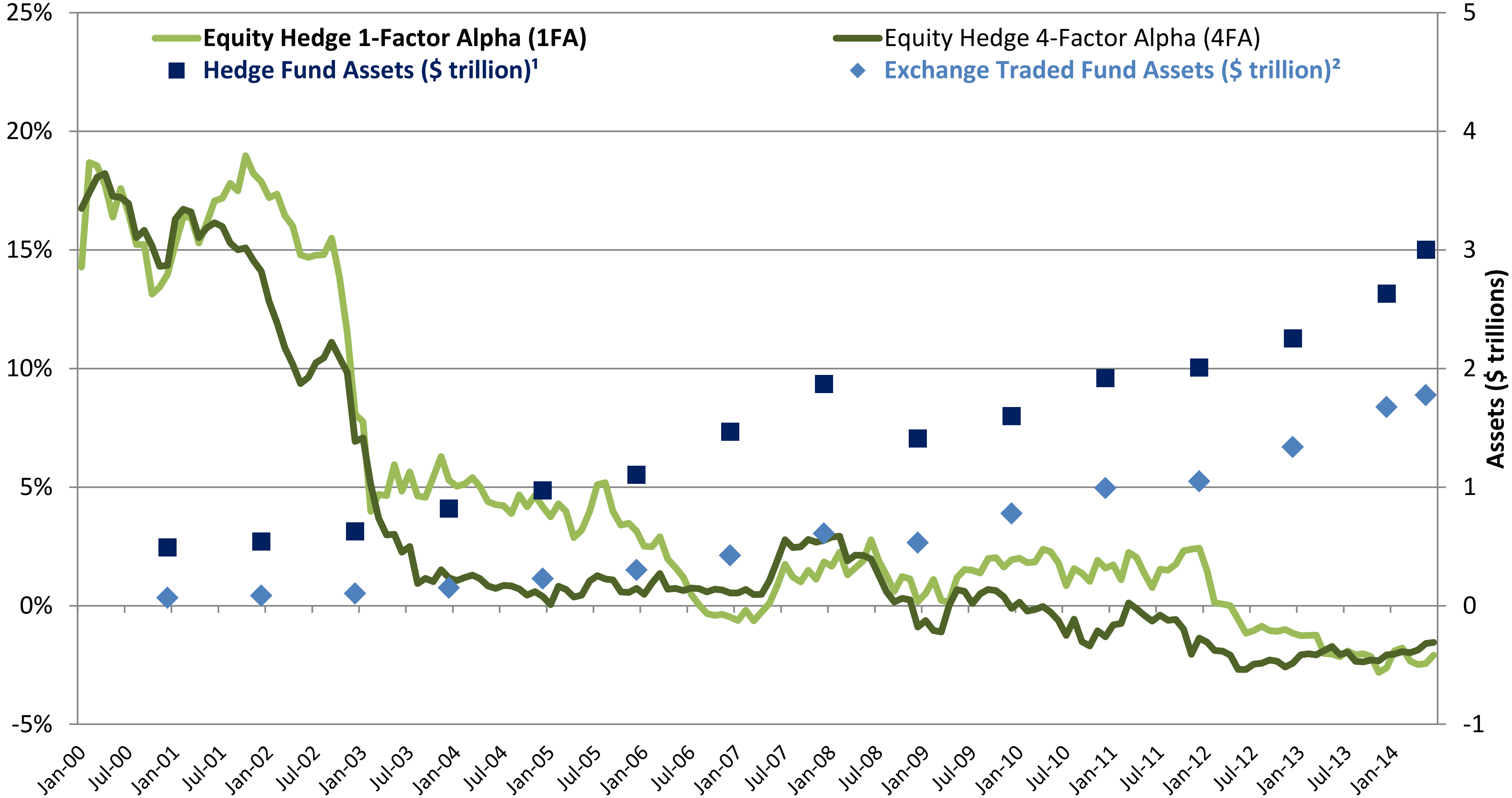
# What Happened to Hedge Fund Alpha?

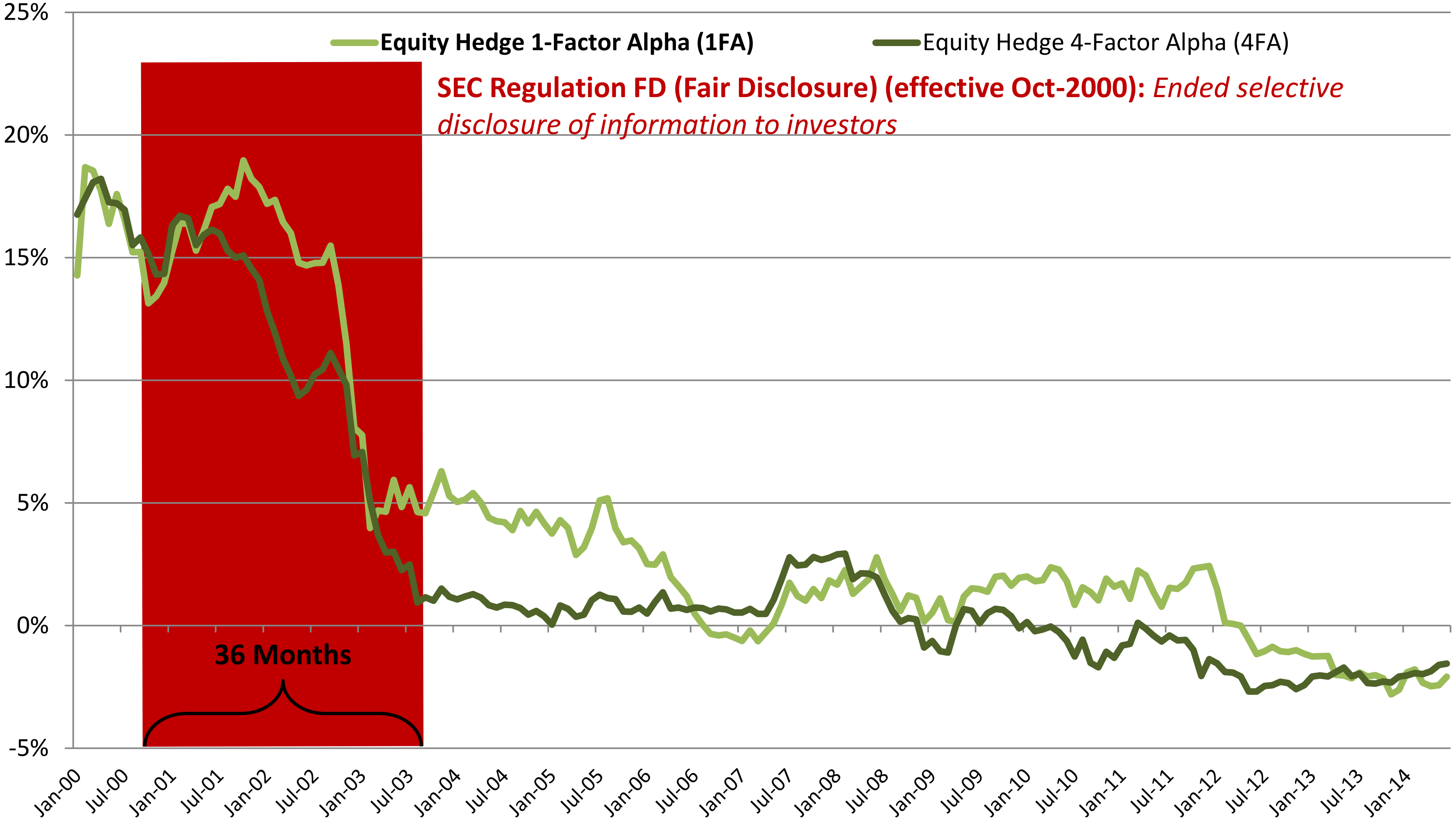
## Rising Hedge Fund and ETF Assets Have Increased Competition and Improved Market Access




*[1] Source: Hedge Fund Research (HFR). [2] Source: Investment Company Institute (ICI).*
*Note: 36-month trailing regression windows. One factor adjusts for beta to MSCI World. Four factors adjust for betas to MSCI World, Size, Value, and Momentum. Assumed risk-free rate was the monthly total return of the BofA Merrill Lynch 3-Month U.S. Treasury Bill Index. See attached important disclosures. Past performance is no guarantee of future performance. Source: HFRI, MSCI, FactSet.*

# What Happened to Hedge Fund Alpha?

## Regulatory Changes Have Removed Simple Sources of Alpha and Made Markets More Efficient

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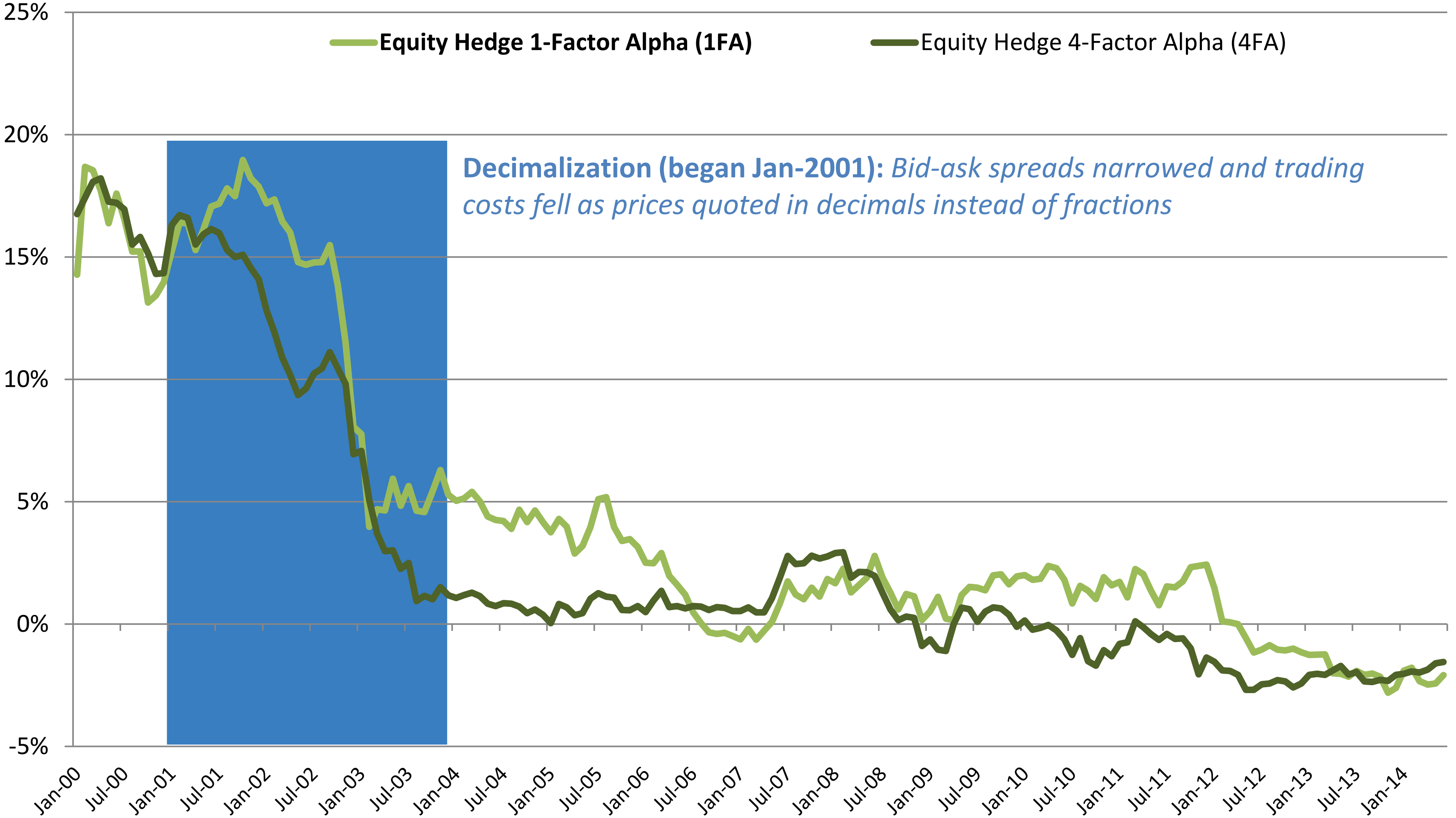


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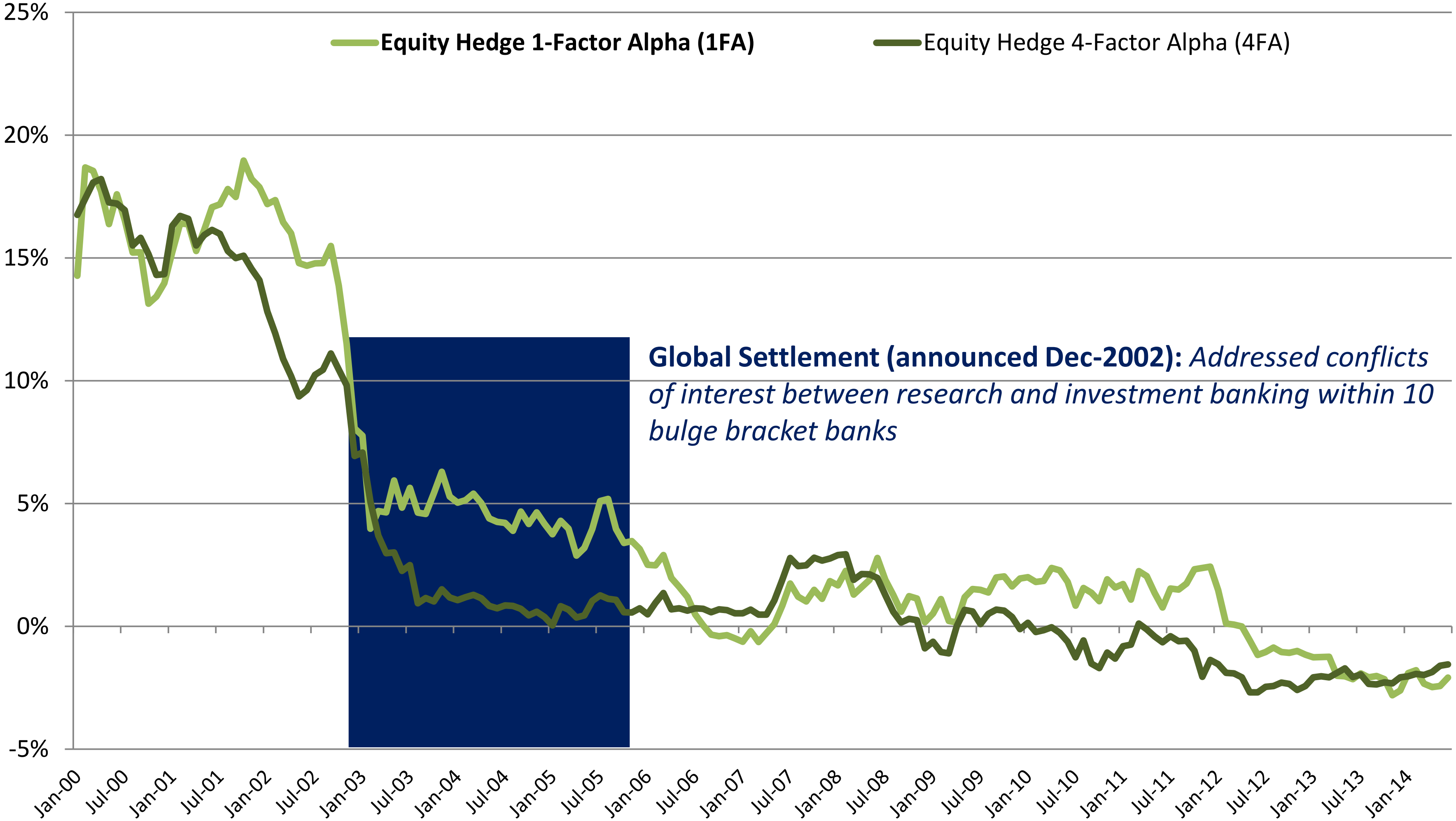


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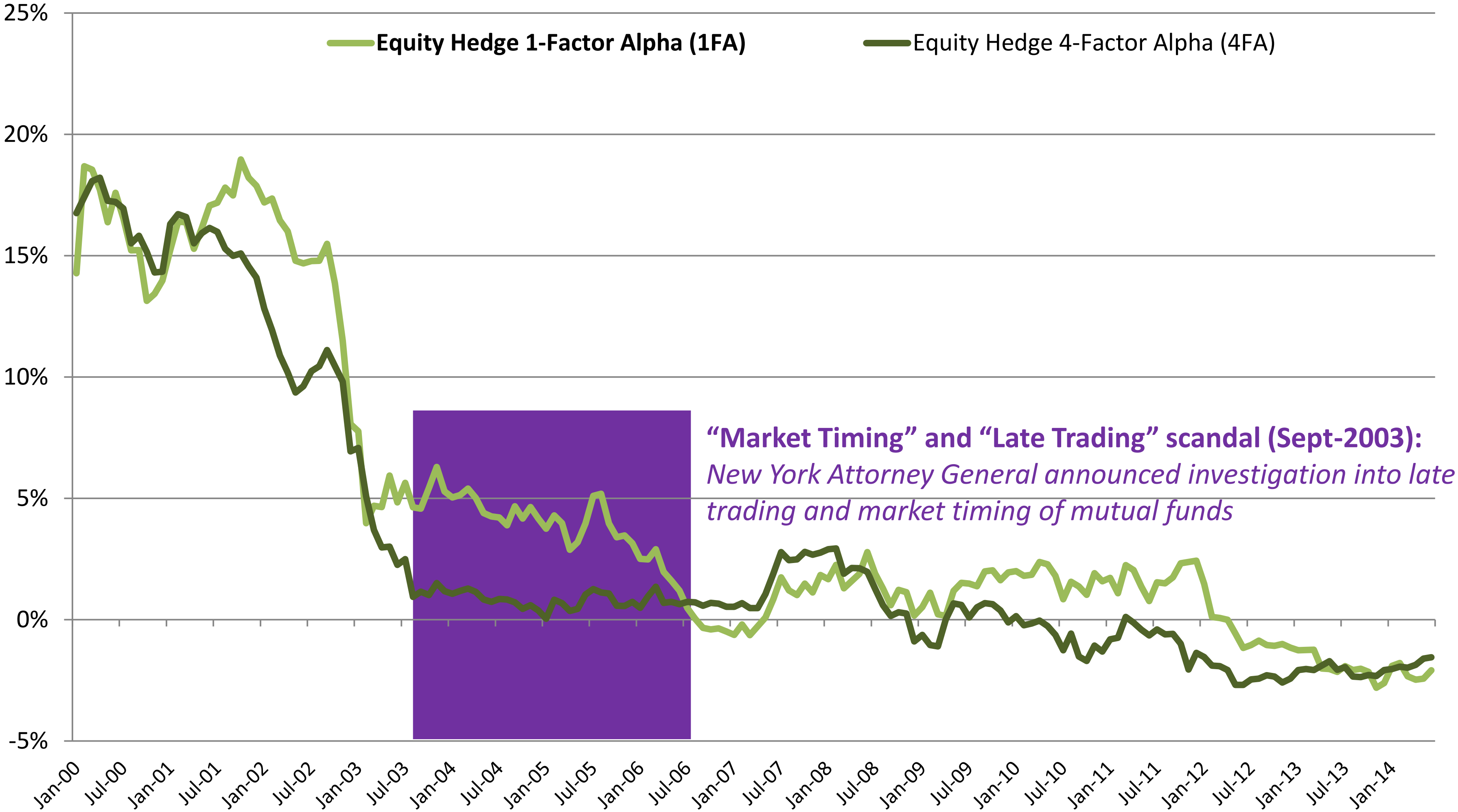


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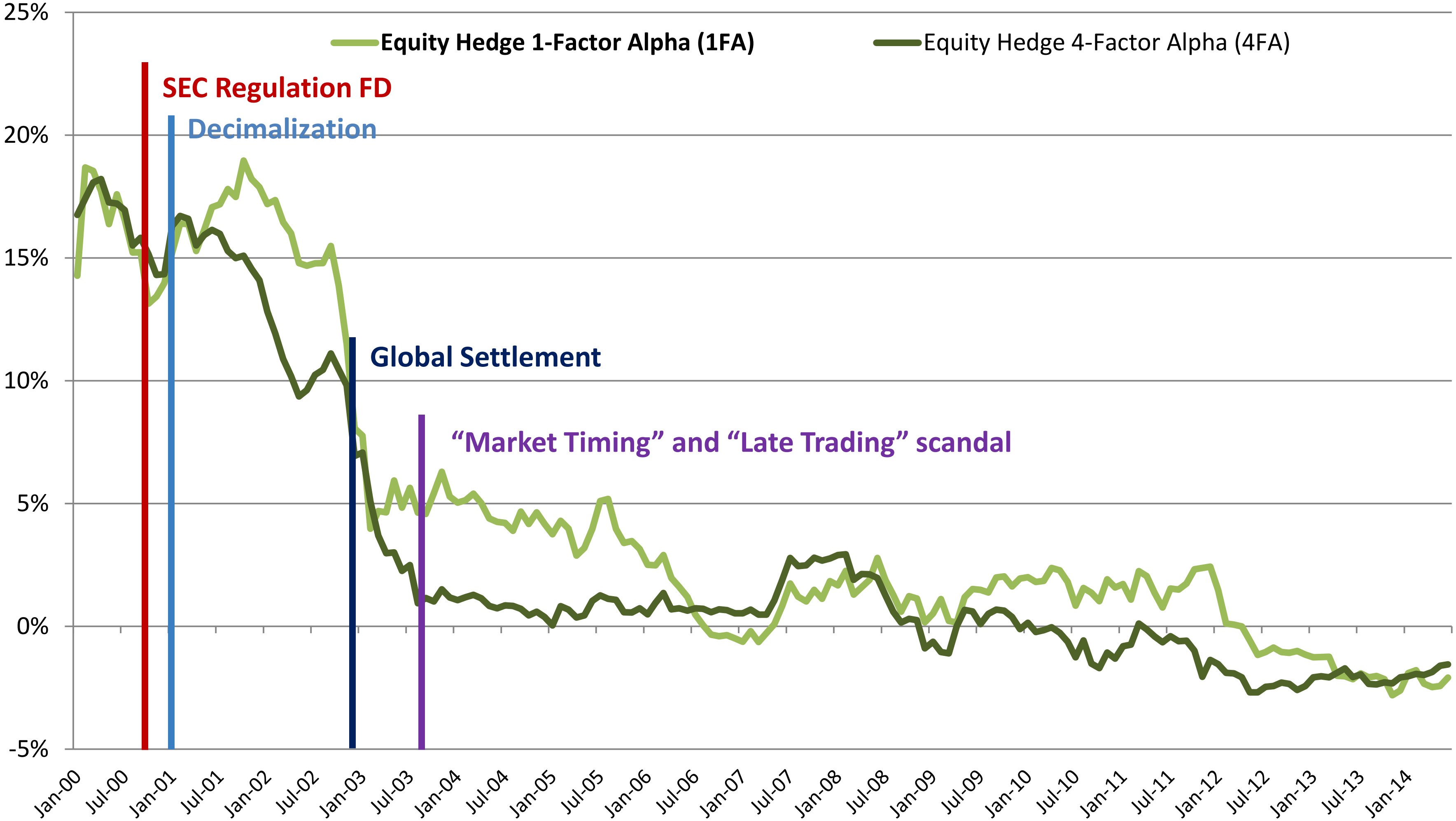


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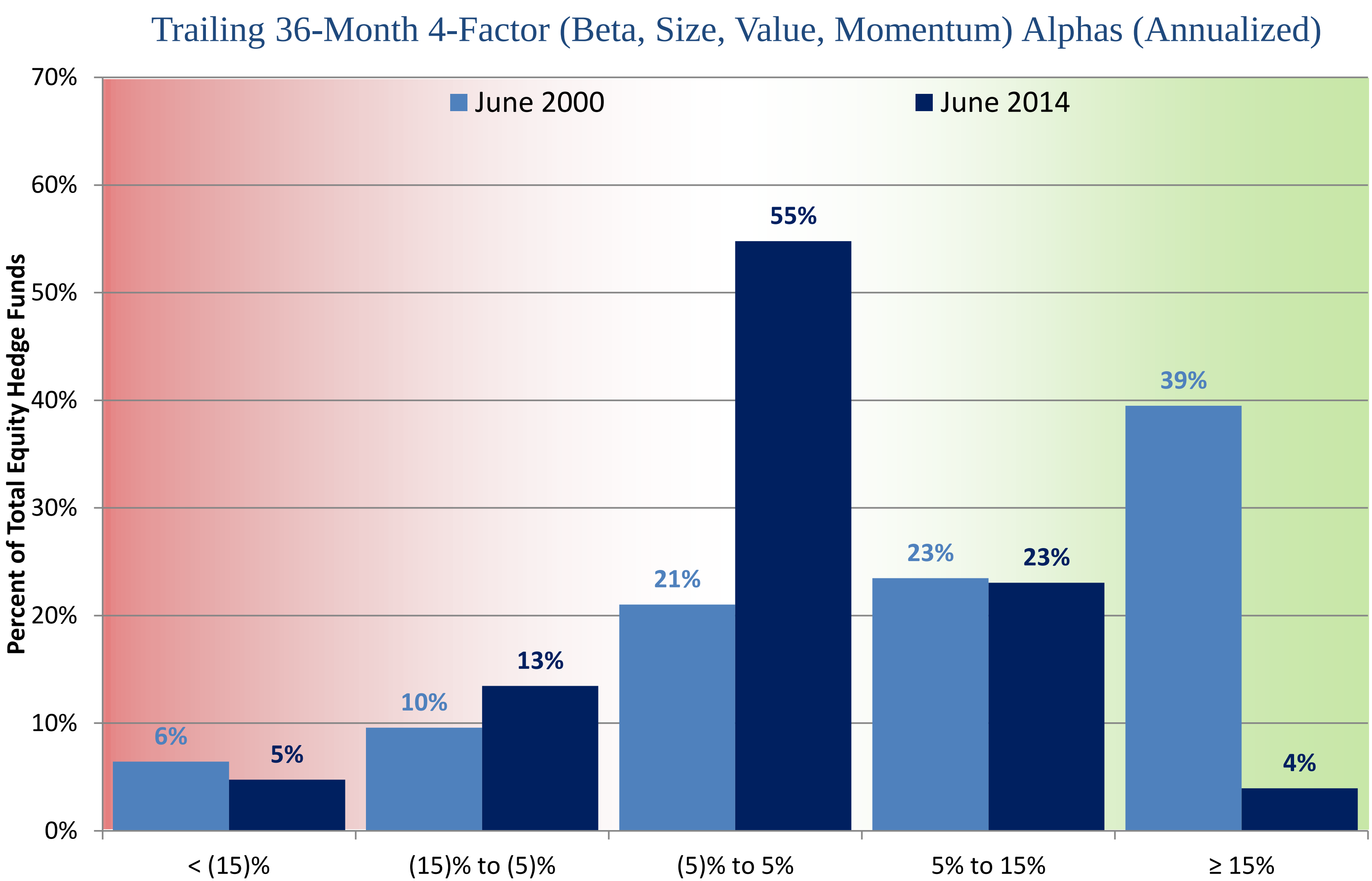
# Some Hedge Funds Still Produce Alpha Despite General Decline

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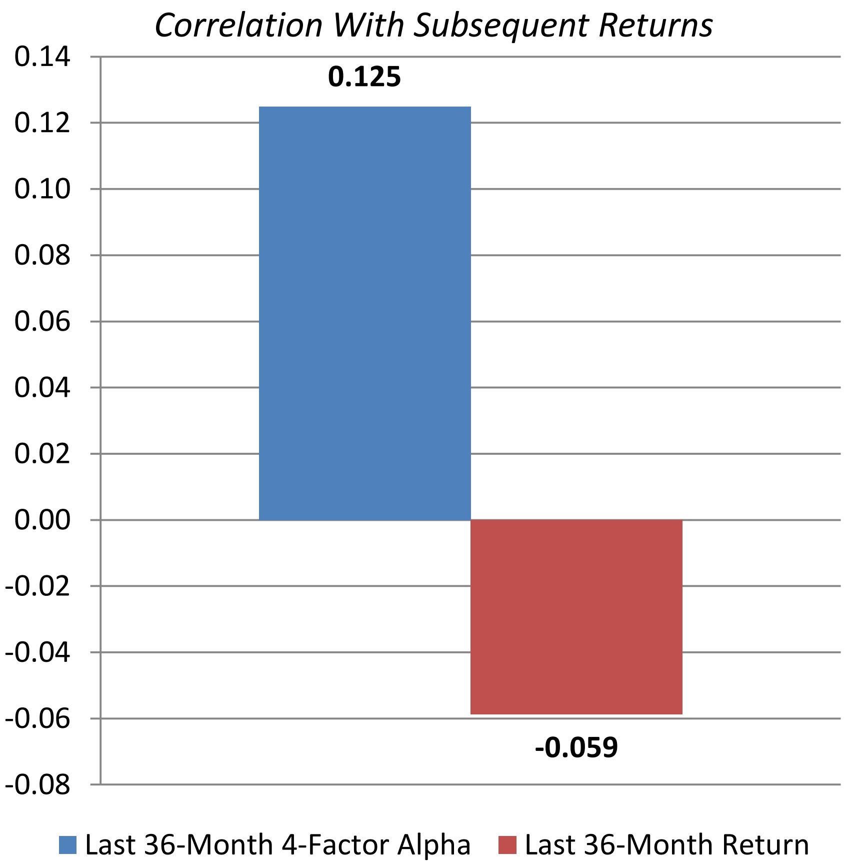
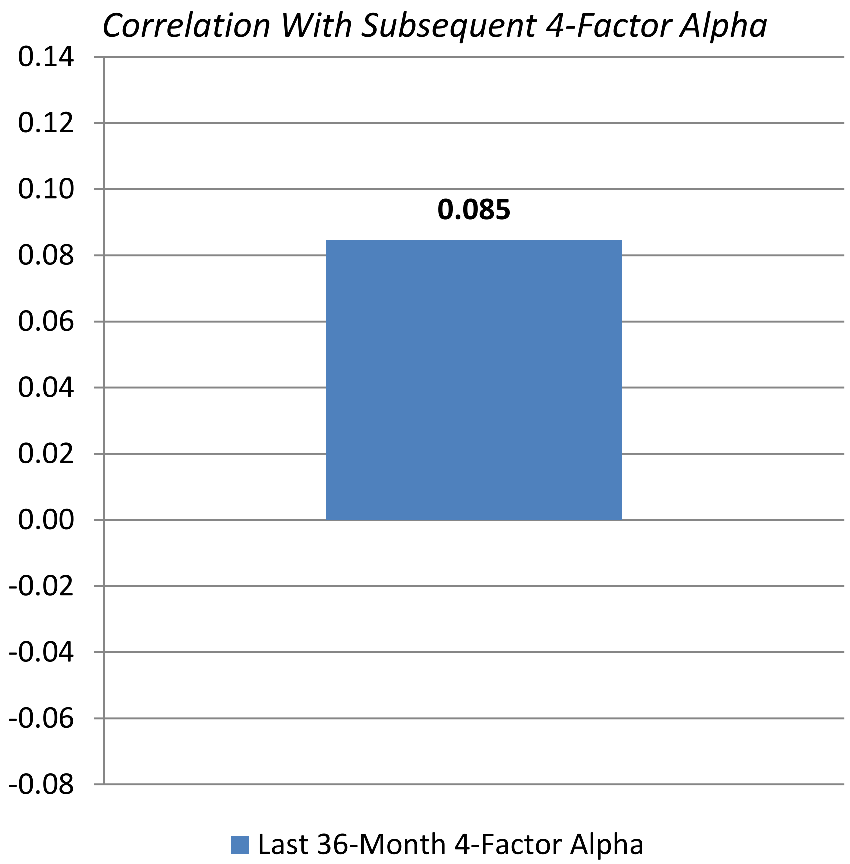
# 4-Factor Alpha is More Predictive of Returns and More Persistent

## 4-Factor Alpha More Predictive of Returns Among Equity Hedge Funds




## 4-Factor Alpha More Persistent Than Returns Among Equity Hedge Funds

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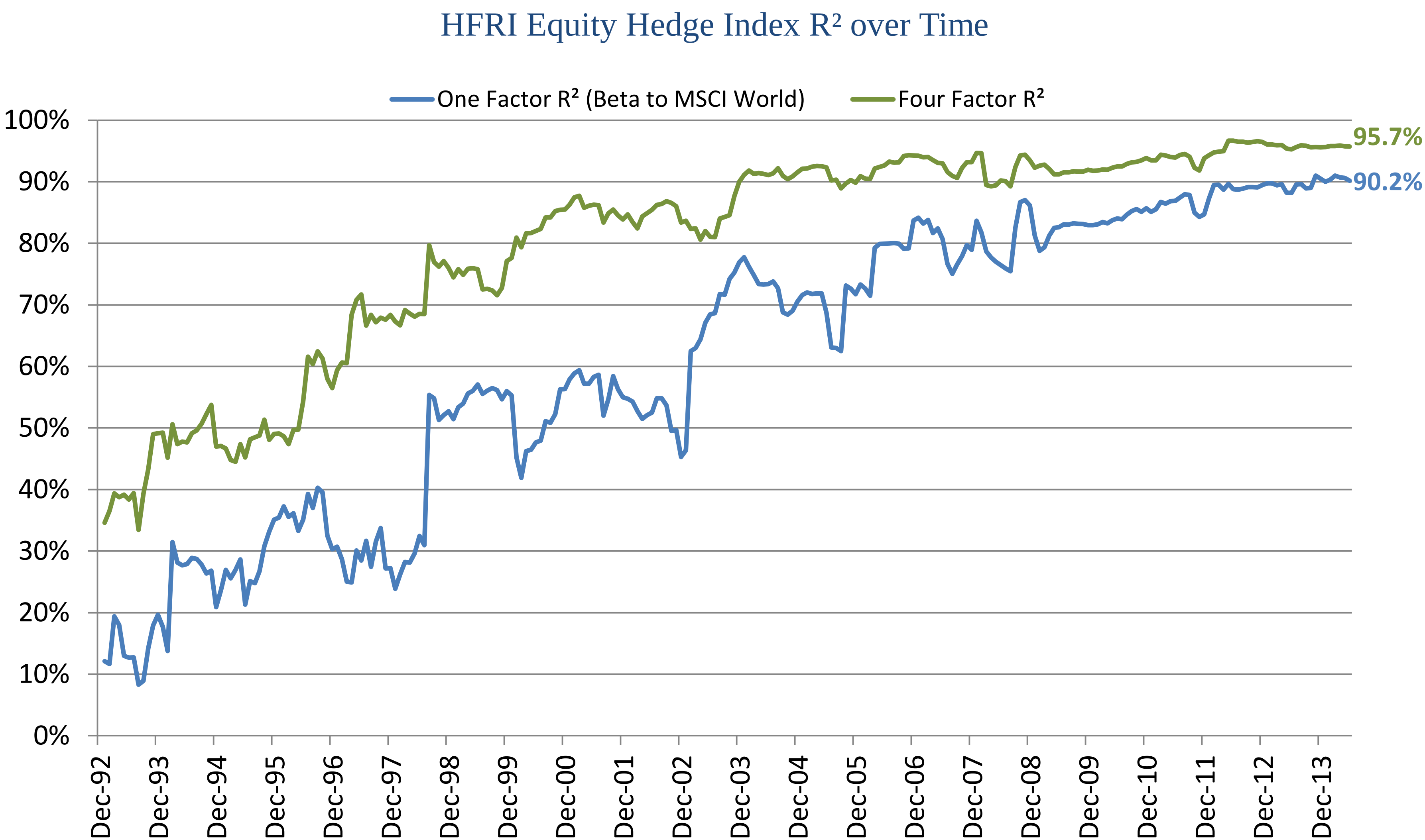
# Hedge Fund Returns Increasingly Explained By Common Risk Factors

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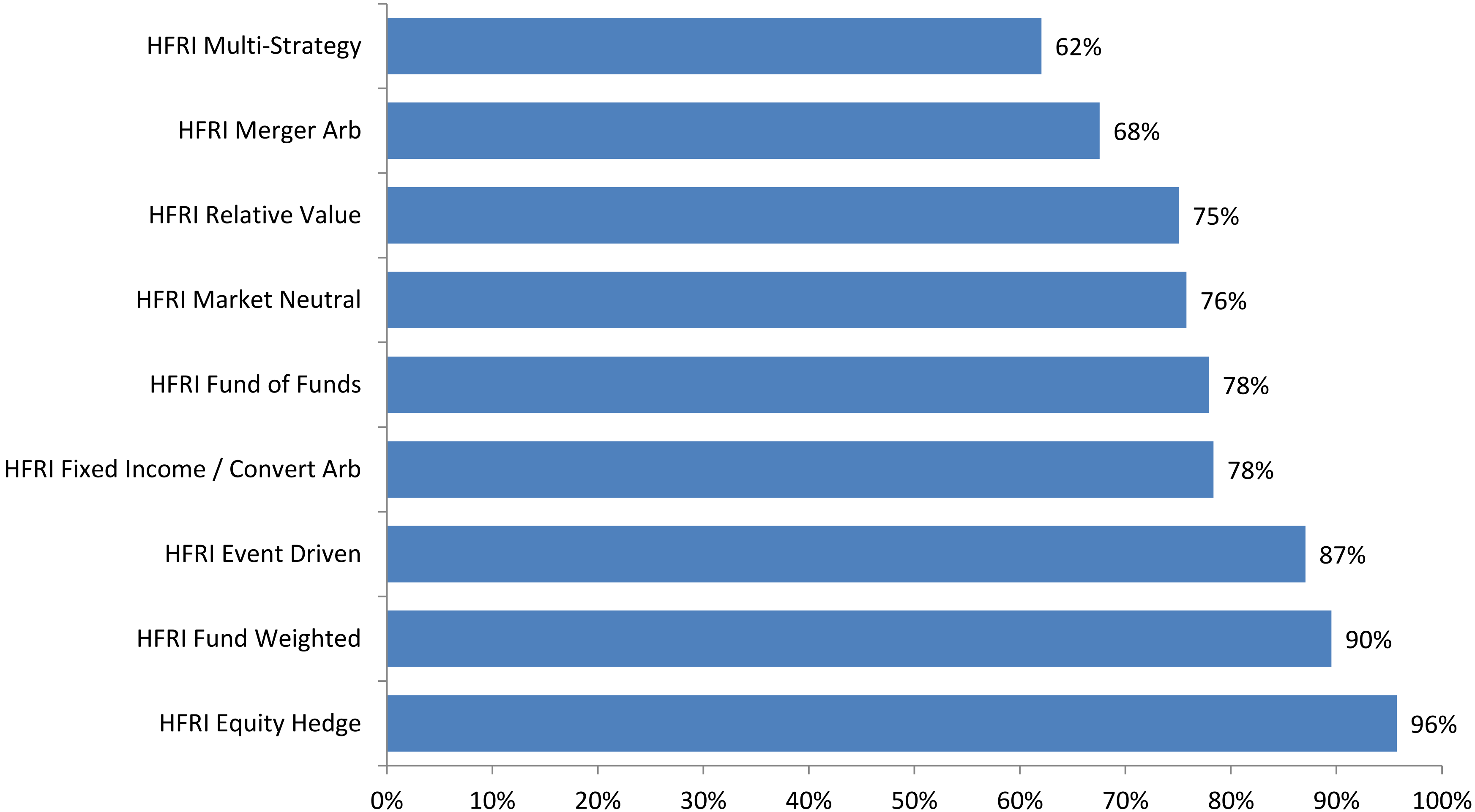
# Percentage of Returns Explained By 4 Factors

## $R^2$ to 4 Factors (Beta, Size, Value, Momentum) as of June 2014

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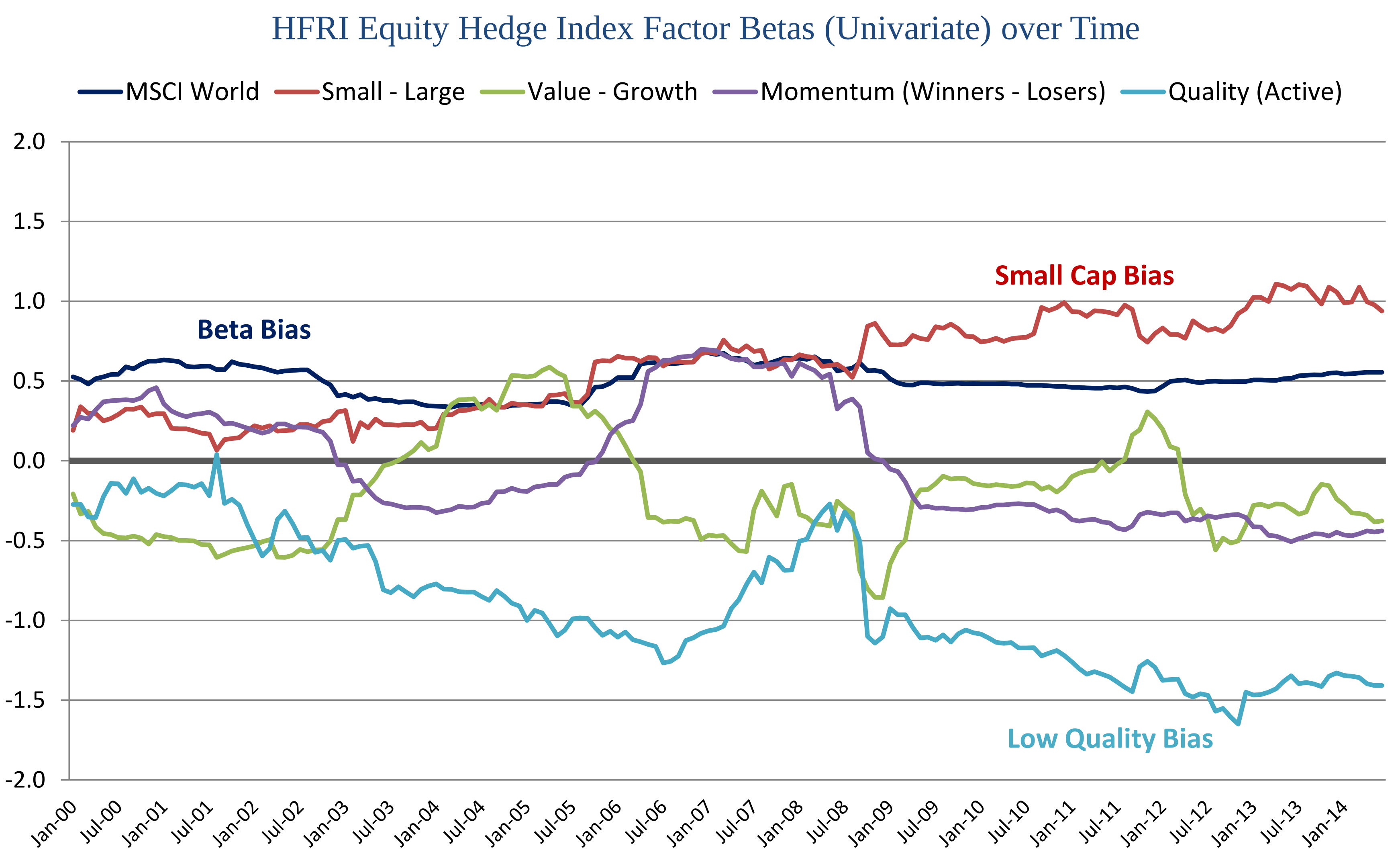
# Persistent Exposure to Market Beta, Small Cap, and Low-Quality Stocks




*Note: See attached important disclosures. Past performance is no guarantee of future performance. Source: HFRI, MSCI, FactSet.*

# Beta, Size, and Quality Regime Performance Exposes Weaknesses

## Average Monthly Hedge Fund Performance During Extreme Market Conditions (Last 10 Years)

| | July 2004 - June 2014 - Average Return of 10 Best/Worst Months | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Beta | | Value | | Size | | Momentum | | Quality | |
| | MSCI World Index | | MSCI World Value - Growth | | MSCI World Small - Large | | MSCI World Momentum (Active) | | MSCI World Quality (Active) | |
| | 10 Best Mths | 10 Worst Mths | 10 Best Mths | 10 Worst Mths | 10 Best Mths | 10 Worst Mths | 10 Best Mths | 10 Worst Mths | 10 Best Mths | 10 Worst Mths |
| POSITIVE | Equity Hedge 3.9% | | | | Equity Hedge 2.8% | | | | | Equity Hedge 2.5% |
| | Event Driven 2.6% | | | Macro 1.0% | Event Driven 2.1% | | | | | Event Driven 2.1% |
| | Relative Value 2.0% | | | Relative Value 0.4% | Relative Value 1.5% | | | Relative Value 0.4% | | Relative Value 1.7% |
| | Fund of Funds 1.5% | | | Fund of Funds 0.4% | Fund of Funds 1.2% | | | Event Driven 0.4% | | Fund of Funds 1.3% |
| | Macro 1.0% | | Relative Value 0.0% | Equity Hedge 0.0% | Macro 1.0% | | Macro 1.0% | Equity Hedge 0.1% | Macro 0.5% | Macro 0.8% |
| 0 | | | | | | | | | | |
| NEGATIVE | | Macro 0.0% | Event Driven -0.4% | Event Driven -0.2% | | Macro -0.3% | Fund of Funds -0.3% | Macro -0.3% | Relative Value -1.2% | |
| | | Relative Value -2.0% | Macro -0.4% | | | Relative Value -0.8% | Relative Value -0.6% | Fund of Funds -0.8% | Fund of Funds -1.5% | |
| | | Fund of Funds -2.6% | Equity Hedge -0.8% | | | Fund of Funds -1.5% | Event Driven -0.8% | | Event Driven -2.2% | |
| | | Event Driven -3.2% | Fund of Funds -0.9% | | | Event Driven -1.7% | Equity Hedge -1.1% | | Equity Hedge -3.1% | |
| | | Equity Hedge -4.7% | | | | Equity Hedge -2.3% | | | | |

*Note: See attached important disclosures. Past performance is no guarantee of future performance. Source: HFRI, MSCI, FactSet.*

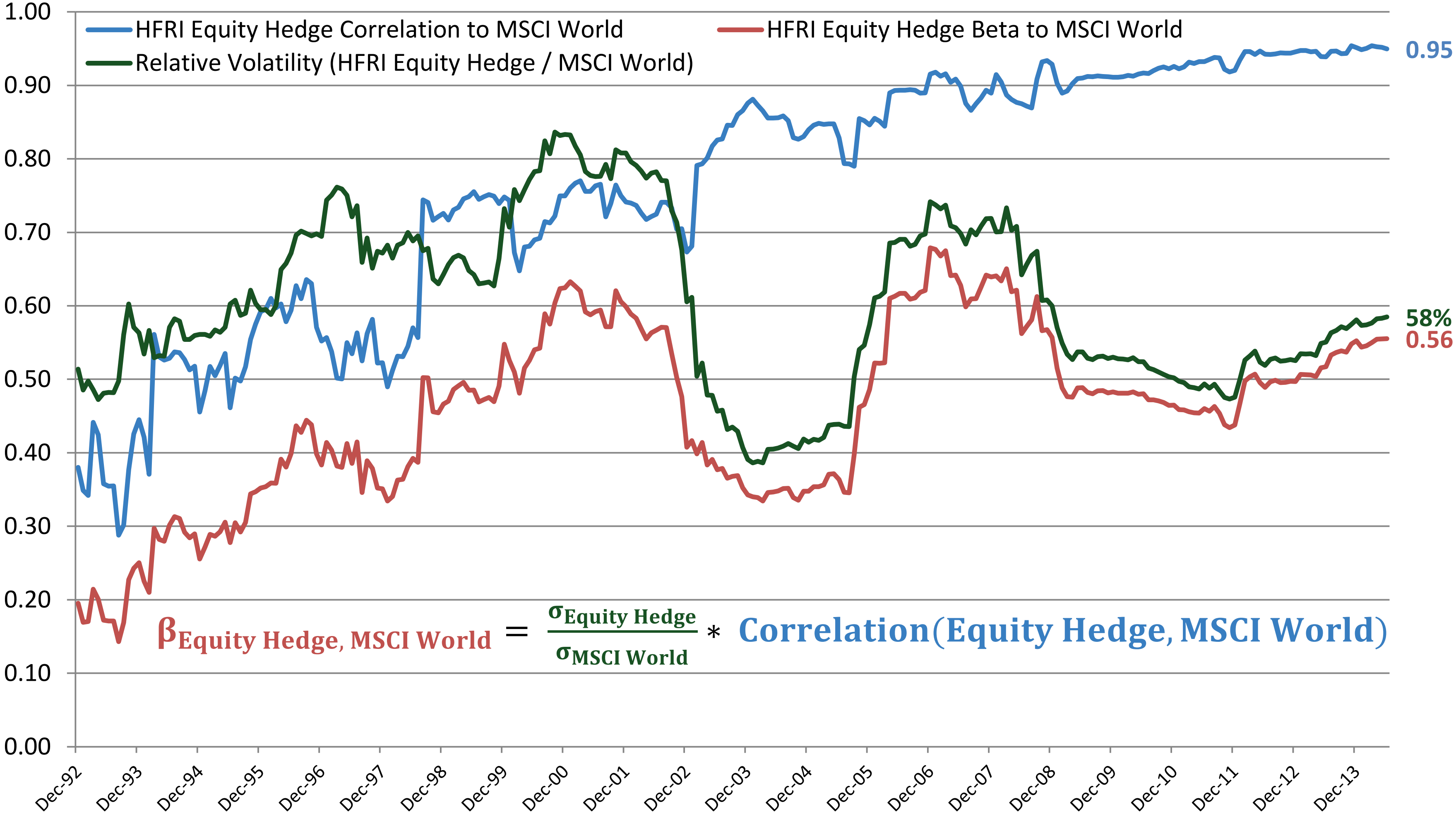
# Low Beta ≠ Low Correlation

- Low Beta Capital
  - 0.10 beta
  - Volatility only 10% that of the MSCI World
- Strategy: Invest 10% of assets in MSCI World Index and 90% in cash
- The result:
  - 0.10 beta
  - 1.0 correlation

$$\beta_{\text{Fund ABC, Market}} = \frac{\sigma_{\text{Fund ABC}}}{\sigma_{\text{Market}}} * \text{Correlation(Fund ABC, Market)}$$

*Note: See attached important disclosures. Past performance is no guarantee of future performance. Source: HFRI, MSCI, FactSet.*

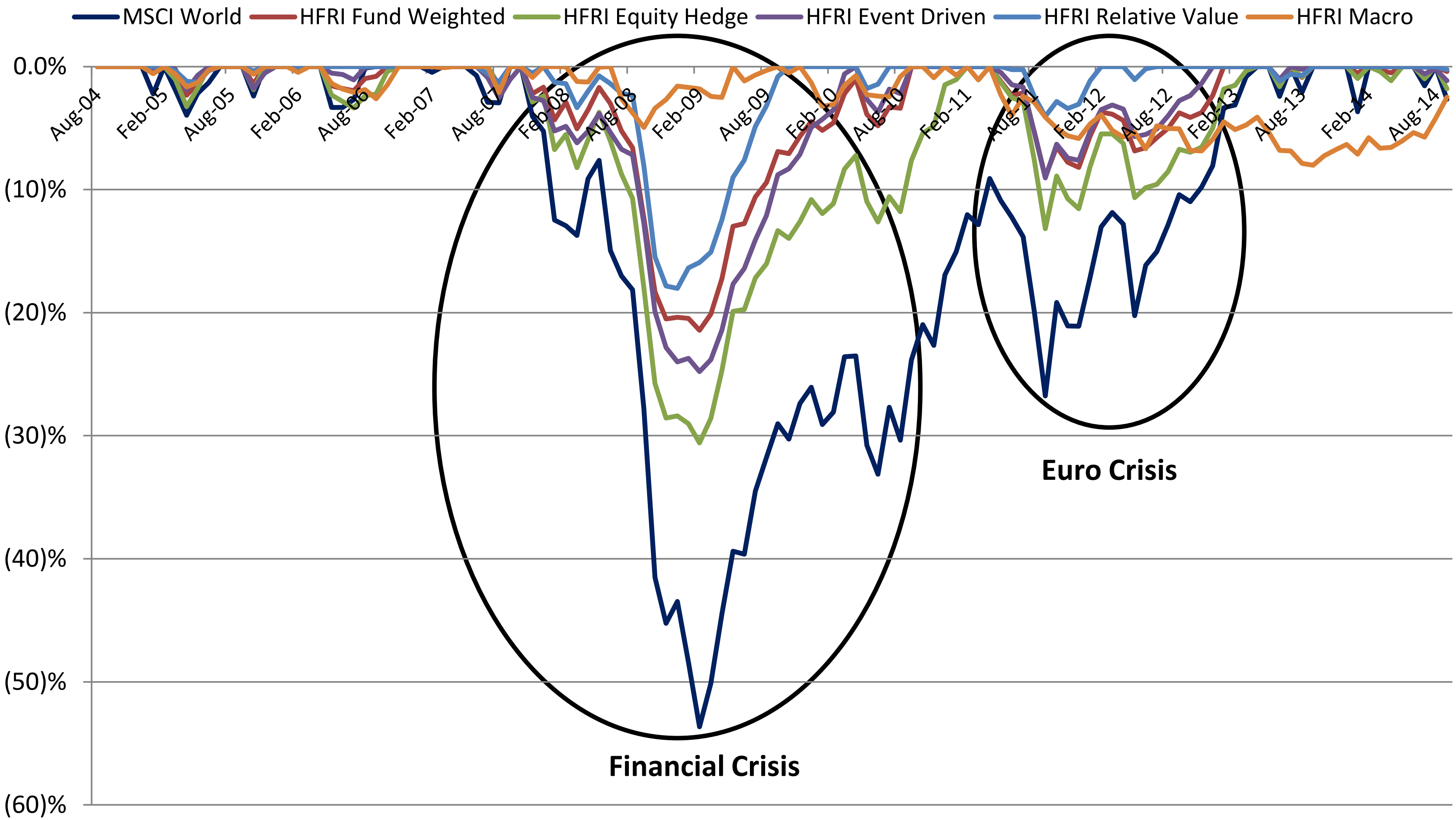
# Lower Relative Volatility Has Masked Rising Correlation




*Note: 36-month trailing windows used to calculate correlation, beta, and volatilities. See attached important disclosures. Past performance is no guarantee of future performance. Source: HFRI, MSCI, FactSet.*

# Drawdown of MSCI World Index vs. HFRI Hedge Fund Categories

## Hedge Fund Drawdowns Increasingly Overlap With Equity Market Drawdowns

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# Positive Characteristics of Equity Hedge Funds

- High 4-factor alpha
- Low $r^2$ to 4 factors (equity beta, value, size, momentum)
- Regime independence
- Low correlation to market <u>and other risk premia</u>
- Non-overlapping drawdown periods vs. equity market

# What Happened to Hedge Fund Alpha?

## Summary

**Hedge Fund Alpha Has Declined**

Average hedge fund alpha has declined due to increased competition and regulatory changes, but some funds still generate meaningful alpha

**Substitution of Risk Premia for Alpha**

Hedge funds are increasingly relying on risk premia to produce returns, making them vulnerable to underperformance during certain market environments. Why pay incentive fees on beta and other risk premia?

**Correlation vs. Beta**

High regime dependency coupled with high correlations to the equity market create synchronous drawdowns, diminishing the benefit of absolute return strategies

# Questions?

*Other research available at [www.causewaycap.com/insights/](http://www.causewaycap.com/insights/)*

1. "Measuring Short-side Performance"
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# Disclosures

***Solely for the use of institutional investors and professional advisers.***

*This presentation should not be relied on as research or investment advice regarding any investment. The presenters' views are subject to change. There is no guarantee that any forecasts made will come to pass.*

*Slides 7-15: Values represent monthly rolling 36-month annualized (monthly values compounded twelve times) alphas when monthly excess returns (risk-free rate is monthly return of BofA Merrill Lynch 3-Month U.S. Treasury Bill Index) are regressed against excess market returns (MSCI World Index), excess returns to Value (MSCI World Value Index - MSCI World Growth Index), Size (MSCI World Small Cap Index - MSCI World Large Cap Index), and Momentum (float-weighted return of top half of price performers in MSCI World Index from previous 12 months - float-weighted return of bottom half of price performers in MSCI World Index from previous 12 months).*

*Slide 16: Values represent the correlation coefficients when 36-month trailing "4-factor alphas" and 36-month trailing returns are compared to subsequent 36-month 4-factor alphas and returns. Includes monthly returns, where available, from June 1998 to June 2014. "4-factor alpha" values represent monthly rolling 36-month annualized (monthly returns compounded twelve times) alphas when monthly excess returns (risk-free rate is monthly return of BofA Merrill Lynch 3-Month U.S. Treasury Bill Index) are regressed against excess market returns (MSCI World Index), excess returns to Value (MSCI World Value Index - MSCI World Growth Index), Size (MSCI World Small Cap Index - MSCI World Large Cap Index), and Momentum (float-weighted return of top half of price performers in MSCI World Index from previous 12 months - float-weighted return of bottom half of price performers in MSCI World Index from previous 12 months). Funds analyzed include all funds whose primary strategy is classified as "Equity Hedge" by Hedge Fund Research (HFR), excluding funds with fewer than 72 months of continuous returns.*

*Slide 17: "One Factor $R^2$" values represent multivariate Coefficient of Determination ("R-Squared") when monthly excess returns (risk-free rate is monthly return of BofA Merrill Lynch 3-Month U.S. Treasury Bill Index) of the HFRI Equity Hedge Index over the trailing 36 months are regressed against excess market returns (MSCI World Index). "Four Factor $R^2$" values represent multivariate Coefficient of Determination ("R-Squared") when monthly excess returns (risk-free rate is monthly return of BofA Merrill Lynch 3-Month U.S. Treasury Bill Index) of the HFRI Equity Hedge Index over the trailing 36 months are regressed against excess market returns (MSCI World Index), excess returns to Value (MSCI World Value Index - MSCI World Growth Index), Size (MSCI World Small Cap Index - MSCI World Large Cap Index), and Momentum (float-weighted return of top half of price performers in MSCI World Index from previous 12 months - float-weighted return of bottom half of price performers in MSCI World Index from previous 12 months). Returns to Size from February 1990 to May 1994 were calculated using the float-weighted monthly returns of the larger half (by market capitalization) of the Global Proxy minus the float-weighted monthly returns of the smaller half of the Global Proxy. Returns to Momentum from February 1990 to May 1994 were calculated using the float-weighted return of the top half of price performers in the Global Proxy from the previous 12 months minus the float-weighted return of bottom half of price performers in the Global Proxy from the previous 12 months. The "Global Proxy" represents the top 1,600 stocks by market capitalization in the global universe at the end of every month.*

*Slide 18: Values represent multivariate Coefficient of Determination ("R-Squared") for various HFRI indices when monthly excess returns (risk-free rate is monthly return of BofA Merrill Lynch 3-Month U.S. Treasury Bill Index) from July 2011 to June 2014 are regressed against excess market returns (MSCI World Index), excess returns to Value (MSCI World Value Index - MSCI World Growth Index), Size (MSCI World Small Cap Index - MSCI World Large Cap Index), and Momentum (float-weighted return of top half of price performers in MSCI World Index from previous 12 months - float-weighted return of bottom half of price performers in MSCI World Index from previous 12 months).*

# Disclosures

*Slide 19: Values represent 36-month trailing univariate betas to excess market returns (MSCI World Index), excess returns to Value (MSCI World Value Index - MSCI World Growth Index), Size (MSCI World Small Cap Index - MSCI World Large Cap Index), Momentum (float-weighted return of top half of price performers in MSCI World Index from previous 12 months - float-weighted return of bottom half of price performers in MSCI World Index from previous 12 months), and Quality (MSCI World Quality Index – MSCI World Index).*

*"Alpha" is a measurement of performance return in excess of a benchmark index. "Beta" is a measurement of sensitivity to the benchmark index. A beta of 1 indicates that a portfolio's value will move in line with the index. A beta of less than 1 means that the portfolio will be less volatile than the index; a beta of greater than 1 indicates that the security's price will be more volatile than the index. "Correlation" ranges between -1 and +1. Perfect positive correlation (+1) implies that as the index moves up or down, the strategy will move in the same direction. Perfect negative correlation (-1) means the strategy will move in the opposite direction. A correlation of 0 means the index and strategy have no correlation. "Drawdown" is the peak-to-trough decline during a specific record period of an investment. A drawdown is measured from the time a retrenchment begins to when a new high is reached. Once the new high is reached, the percentage change from the old high to the smallest trough is recorded. "Sharpe ratio" is a measure of risk-adjusted performance that divides the average return minus the risk-free return by the standard deviation of those excess returns (returns above the risk-free return). "Volatility" is the standard deviation of returns.*

*The HFRI Monthly Indices ("HFRI") are a series of benchmarks designed to reflect hedge fund industry performance by constructing equally-weighted composites of constituent funds, as reported by the hedge fund managers listed within the HFR Database. HFRI Equity Hedge strategies maintain positions both long and short in primarily equity and equity derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques; strategies can be broadly diversified or narrowly focused on specific sectors and can range broadly in terms of levels of net exposure, leverage employed, holding period, concentrations of market capitalizations and valuation ranges of typical portfolios. Equity Hedge managers would typically maintain at least 50% exposure to, and may in some cases be entirely invested in, equities, both long and short. HFRI Market Neutral strategies employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. These can include both Factor-based and Statistical Arbitrage/Trading strategies. Factor-based investment strategies include strategies in which the investment thesis is predicated on the systematic analysis of common relationships between securities. In many but not all cases, portfolios are constructed to be neutral to one or multiple variables, such as broader equity markets in dollar or beta terms, and leverage is frequently employed to enhance the return profile of the positions identified. HFRI Multi-Strategies employ an investment thesis predicated on realization of a spread between related yield instruments in which one or multiple components of the spread contains a fixed income, derivative, equity, real estate, MLP or combination of these or other instruments. HFRI Merger Arbitrage strategies employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction. HFRI Relative Value strategies maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities. HFRI Fixed Income - Convertible Arbitrage strategies' investment thesis is predicated on realization of a spread between related instruments in which one or multiple components of the spread is a convertible fixed income instrument. HFRI Event Driven strategies maintain positions in companies currently or prospectively involved in corporate transactions of a wide variety including but not limited to mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance or other capital structure adjustments. The HFRI Fund of Funds Index represents Fund of Funds that invest with multiple managers through funds or managed accounts. HFRI Macro strategies trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets. The HFRI Fund Weighted Composite Index includes all hedge funds which report to HFR.*

# Disclosures

*The MSCI World Index is a free float-adjusted market capitalization index, designed to measure developed market equity performance, consisting of 23 developed country indices, including the U.S. The MSCI World Value Index captures large and mid cap securities exhibiting overall value style characteristics. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield. With 845 constituents, the index targets 50% coverage of the free float-adjusted market capitalization of the MSCI World Index. The MSCI World Growth Index captures large and mid cap securities exhibiting overall growth style characteristics. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend. The MSCI World Small Cap Index captures small cap representation. With 4,203 constituents, the index covers approximately 14% of the free float-adjusted market capitalization in each country. The MSCI World Large Cap Index captures large cap representation. With 725 constituents, the index covers approximately 70% of the free float-adjusted market capitalization in each country. The MSCI World Quality Index is based on MSCI World, its parent index, which includes large and mid cap stocks across 23 Developed Market countries. The index aims to capture the performance of quality growth stocks by identifying stocks with high quality scores based on three main fundamental variables: high return on equity (ROE), stable year-over-year earnings growth and low financial leverage. These indices are gross of withholding taxes, assume reinvestment of dividends and capital gains, and assume no management, custody, transaction or other expenses.*

*MSCI has not approved, reviewed or produced this report, makes no express or implied warranties or representations and is not liable whatsoever for any data in the report. You may not redistribute the MSCI data or use it as a basis for other indices or investment products.*

*The BofA Merrill Lynch 3-Month U.S. Treasury Bill Index is comprised of a single issue purchased at the beginning of the month and held for a full month. Each month the index is rebalanced and the issue selected is the outstanding Treasury Bill that matures closest to, but not beyond 3 months from, the rebalancing date. The Treasury Bills comprising the Index are guaranteed by the U.S. government as to the timely payment of interest and principal. The Index is gross of withholding taxes, assumes reinvestment of dividends and capital gains, and assumes no management, custody, transaction or other expenses.*

*It is not possible to invest directly in an Index.*