



Hedge Fund Portfolio Review for 2014 and Since Inception

Los Angeles • New York

Prepared for the Rhode Island State Investment Commission

*February 25, 2015*



## Contents

Role of Hedge Fund Allocation

2014 Performance Review

Since Inception Performance Review

Appendix: January 2015 Performance

### Description of Strategy

Managers investing primarily in equities making active security selection on long and short positions.

Sub-strategies:

- Equity long/short – investing in equities
- Event Driven – investing primarily in equities but also debt while anticipating a particular change or event to occur with a company (e.g. acquisition)

### Role in the Total Fund

The equity hedge fund portfolio's role is to increase the Sharpe ratio of the total fund's equity exposure by:

- Over the long term, producing equity returns by combining some equity exposure and significant alpha generation
- Over the short/medium term, reduce the volatility of the equity portfolio by hedging the exposure

### Description of Strategy

Managers generally investing in non-equity asset classes or investing with a low net exposure (i.e. low equity beta). Exposures include both long and short positions on interest rates, credit, currency, commodities, and to a limited degree equities.

#### Sub-strategies:

- Credit– investing in corporate credit instruments taking both long and short positions
- Relative Value– investing in fixed income, on a long and short basis, seeking price discrepancies of instruments with similar fixed income risk
- Macro – investing across asset classes, on a long and short basis, based on fundamental or quantitative judgments
- Multi-strategy- investing across hedge fund strategies

### Role in the Total Fund

The real return hedge fund portfolio’s role is to increase the Sharpe ratio of the total fund and to provide an expected return with low volatility by:

- Over the long term, produce a significant return premium over the risk free rate (e.g. T-bills)
- Over the short/medium term, maintain a low beta or exposure to equity markets
- Over the long term, produce a level of volatility comparable to fixed income

# Performance Update

All returns are net-of-fees and annualized, as are risk measures

Three hedge fund composites are evaluated:

– **Real Return Hedge Funds:**

- \$540 million invested in 9 hedge funds
- Target 7% of total assets, within the 17% overall real return allocation
- Benchmarks – T-bills+4%; HFRI Fund-of-Funds Index

– **Equity Hedge Funds:**

- \$602 million invested in 9 hedge funds
- Target 8% of total assets, within the 60% overall global equity allocation
- Benchmarks – MSCI ACWI Index; HFRI Equity Hedged Index

– **Combined Hedge Funds:**

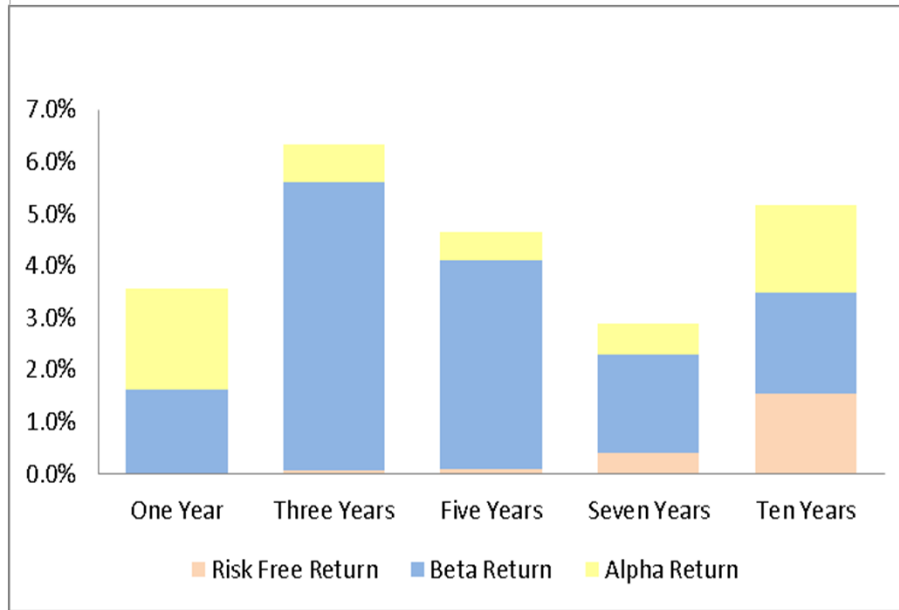
- Combines the Real Return and Equity Hedge Funds into one composite

Hedge Fund Portfolio Return and Risk: Inception through Jan 31, 2015

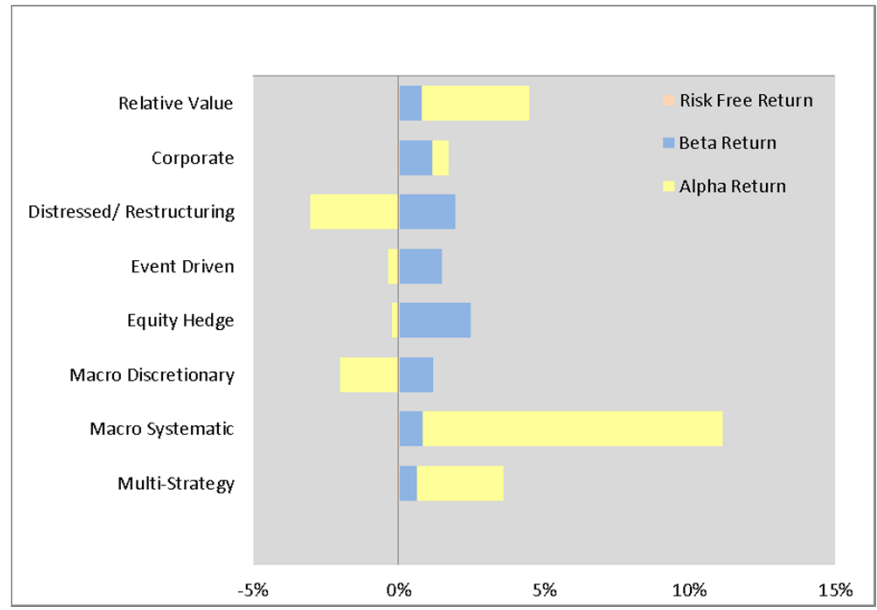
	ERSRI Equity Hedge Funds	ERSRI Real Return Hedge Funds	ERSRI Combined Hedge	HFRI Fund of Funds Index	HFRI Equity Hedged Index	ACWI	T-bill	Barc Agg
Total Return	8.04%	5.68%	6.97%	4.82%	5.93%	11.29%	0.07%	3.43%
Total Risk	3.97%	2.56%	3.05%	3.20%	5.86%	10.59%	0.02%	2.81%

# 2014 Hedge Fund Market Environment

Sources of Return for HFRI Fund Weighted Index  
For Periods Ending December 2014

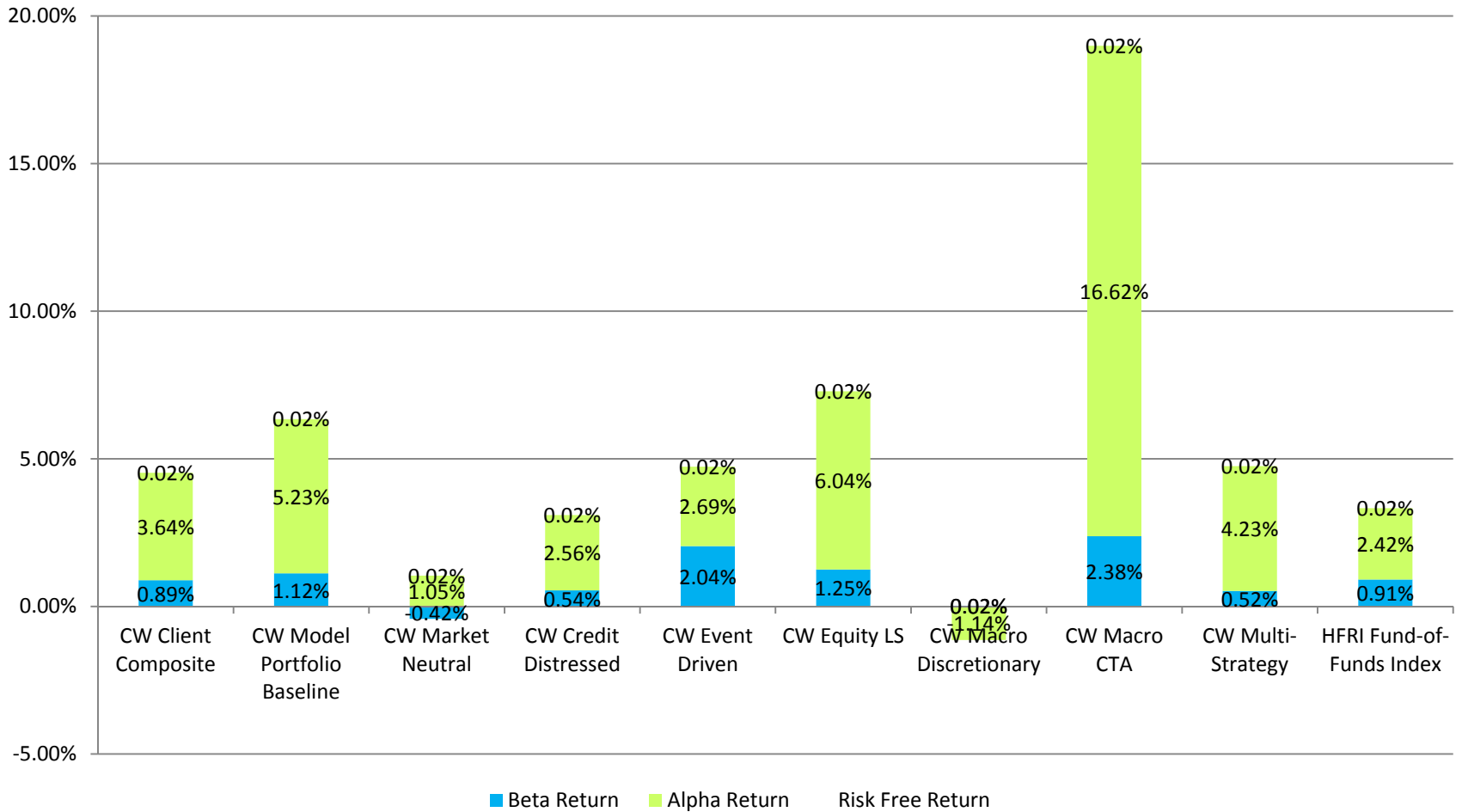


Strategy Returns for HFRI Fund Weighted Index  
Year Ending December 2014



- In 2014, alpha returns improved to long term average with lower correlations across assets and securities
- Relative Value and Macro Systematic were the best performers due to increased volatility
- Macro Discretionary negatively impacted by short bond trades
- Event Driven negatively impacted by break up of tax inversion mergers

# Cliffwater 2014 Hedge Fund Returns: Selection Matters



# Cliffwater 2015 Long Term Forecast of Hedge Funds Returns and Risk

## Hedge Fund Forecast

Expected Sources of Hedge Fund Return and Risk -- Jan 1, 2015

Strategy	1		2				3			4		5		6		7		8		9		10		11	
	Model Weights	Libor	Beta				Alpha			Libor+Beta+Alpha		Total		Total		Total		Total		Total		Total			
			Equity Beta*	Credit Beta**	Beta Return	Beta Risk	Alpha Return	Alpha Risk	Info Ratio	Return	Risk	Return	Risk	Return	Risk	Return	Risk	Return	Risk	Return	Risk	Return	Risk		
Market Neutral	5%	1.50%	0.00	0.00	0.00%	0.00%	2.50%	4.33%	0.58	4.00%	4.33%														
Credit/Distressed	20%	1.50%	0.00	0.35	1.54%	2.80%	4.20%	6.26%	0.67	7.24%	6.86%														
Event Driven	20%	1.50%	0.20	0.15	1.77%	5.00%	4.80%	7.16%	0.67	8.07%	8.73%														
Equity Long/Short	25%	1.50%	0.40	0.10	2.66%	9.15%	3.40%	6.58%	0.52	7.56%	11.27%														
Macro-Discretionary	15%	1.50%	0.10	0.00	0.56%	2.20%	3.60%	4.90%	0.73	5.66%	5.37%														
Macro-Systematic	5%	1.50%	-0.10	0.00	-0.56%	2.20%	3.00%	9.35%	0.32	3.95%	9.61%														
Multistrategy	10%	1.50%	0.15	0.20	1.71%	4.20%	3.12%	4.79%	0.65	6.33%	6.38%														
Hedge Fund Portfolio	100%	1.50%	0.17	0.22	1.55%	4.62%	3.78%	4.62%	0.82	6.83%	6.56%														

Hedge fund expected return equals 6.83% for a diversified portfolio of approximately 20 hedge funds.

\* MSCI World Equity Index  
\*\* S&P/LSTA Leveraged Loan Index

## Hedge Fund Actual over Last 5 Years (Cliffwater Model Portfolio)

Cliffwater Hedge Fund Model Performance Attribution: 5 Years ending Sept 30, 2014\*

Strategy	1		2				3			4		5		6		7		8		9		10	
	Model Weights	Libor	Beta*				Alpha			Libor+Beta+Alpha		Total		Total		Total		Total		Total			
			Equity Beta*	Credit Beta**	Beta Return	Beta Risk	Alpha Return	Alpha Risk	Info Ratio	Return	Risk	Return	Risk	Return	Risk	Return	Risk	Return	Risk	Return	Risk		
Market Neutral	5%	0.32%	-0.12	0.14	-0.31%	1.48%	2.42%	1.66%	1.45	2.34%	2.22%												
Credit/Distressed	15%	0.32%	0.03	0.65	4.29%	2.75%	3.84%	2.24%	1.71	8.68%	3.54%												
Event Driven	21%	0.32%	0.29	0.52	6.04%	5.73%	2.91%	3.31%	0.88	9.59%	6.61%												
Equity Long/Short	29%	0.32%	0.36	0.35	5.66%	6.21%	0.29%	2.86%	0.10	6.42%	6.83%												
Macro-Discretionary	11%	0.32%	0.12	-0.08	0.70%	1.64%	3.72%	3.84%	0.97	4.86%	4.17%												
Macro-Systematic	5%	0.32%	0.22	-0.58	-1.45%	2.42%	4.71%	10.07%	0.47	3.30%	10.35%												
Multistrategy	15%	0.32%	0.11	0.41	3.63%	2.91%	2.62%	1.92%	1.36	6.74%	3.48%												
CW Model Portfolio	100%	0.32%	0.20	0.34	4.05%	3.91%	2.28%	2.14%	1.07	6.86%	4.45%												

Actual hedge fund performance for Cliffwater's model portfolio equals 8.85% over the last 5 years with a 1.07 information ratio.



## 2014 Performance: Global Equity Portfolio

### Global Equity Portfolio Performance for 2014

Fund	31-Dec-14		2014 Return
	Market Value	Portfolio Weight	
Viking Global Equities, LP	94,488,426	14%	13.69%
Samlyn Onshore Fund, L.P.	107,870,659	16%	9.60%
Elliott Associates, L.P.	82,231,075	12%	8.54%
Ascend Partners Fund II LP	71,686,873	11%	5.00%
Davidson Kempner Institutional Partners	74,292,184	11%	4.44%
PFM Diversified Fund, L.P.	38,506,138	6%	2.86%
PFM Diversified Offshore Fund A.I., Ltd.	38,213,382	6%	2.73%
<b>Total Global Equities</b>	<b>658,752,833</b>	<b>100%</b>	<b>2.60%</b>
<b>HFRI Equity Hedge (Total) Index</b>			<b>1.83%</b>
ESG Cross Border Equity Fund LP	46,220,525	7%	-7.62% * Partial Year (6/1)
Luxor Capital Partners, LP	44,471,079	7%	-9.49% * Partial Year (5/1)
Mason Capital Ltd.	60,029,224	9%	-14.22%
MSCI AC World Index Free - Net			4.16%

Portfolio outperformed HFRI Equity Hedge Index (2.60% v. 1.83%)

Good alpha generation from equity long/short funds (Viking, Samlyn, Ascend, PFM)

Diversified Event Driven managers (Elliott and Davidson Kempner) outperformed

Underperformance by more concentrated Event Driven managers (Mason and Luxor)

ESG (partial year) underperformed with security selection

## 2014 Performance: Real Return Portfolio

### Real Return Portfolio Performance for 2014

Fund	31-Dec-14		2014 Return
	Market Value	Portfolio Weight	
DE Shaw Composite Fund LLC	77,906,862	14.6%	16.31%
Winton Futures Fund Limited	36,520,034	6.8%	13.87%
Capula Global Relative Value Fund Ltd.	58,294,823	10.9%	8.12%
OZ Domestic Partners II, L.P.	102,531,939	19.2%	5.86%
<b>Total Real Return</b>	<b>533,165,614</b>	<b>100.0%</b>	<b>4.31%</b>
<b>HFRI Fund of Funds Composite Index</b>			<b>3.38%</b>
Graham Global Investment Fund I SPC Ltd	55,516,516	10.4%	3.18%
Brigade Leveraged Capital Structures Fund	55,864,831	10.5%	0.62%
BlueCrest Capital LP	20,861,264	3.9%	0.14%
Brevan Howard LP	79,922,304	15.0%	-0.82%
Claren Road Credit Fund, Ltd.	45,747,040	8.6%	-9.57%
ML 3-month T-Bills			0.04%

Portfolio outperformed HFRI Fund of Funds Index (4.31% v. 3.38%)

Good alpha generation from diversified multi-strategy funds (DE Shaw and OZ Domestic Partners)

Volatility focused strategies (Systematic-Winton Futures and Market Neutral- Capula) performed well with rising volatility

Macro Discretionary managers (BlueCrest and Brevan) underperformed with portfolios positioned for rising US interest rates

Credit managers (Brigade and Claren Road) underperformed with lower quality credits underperforming higher quality credits

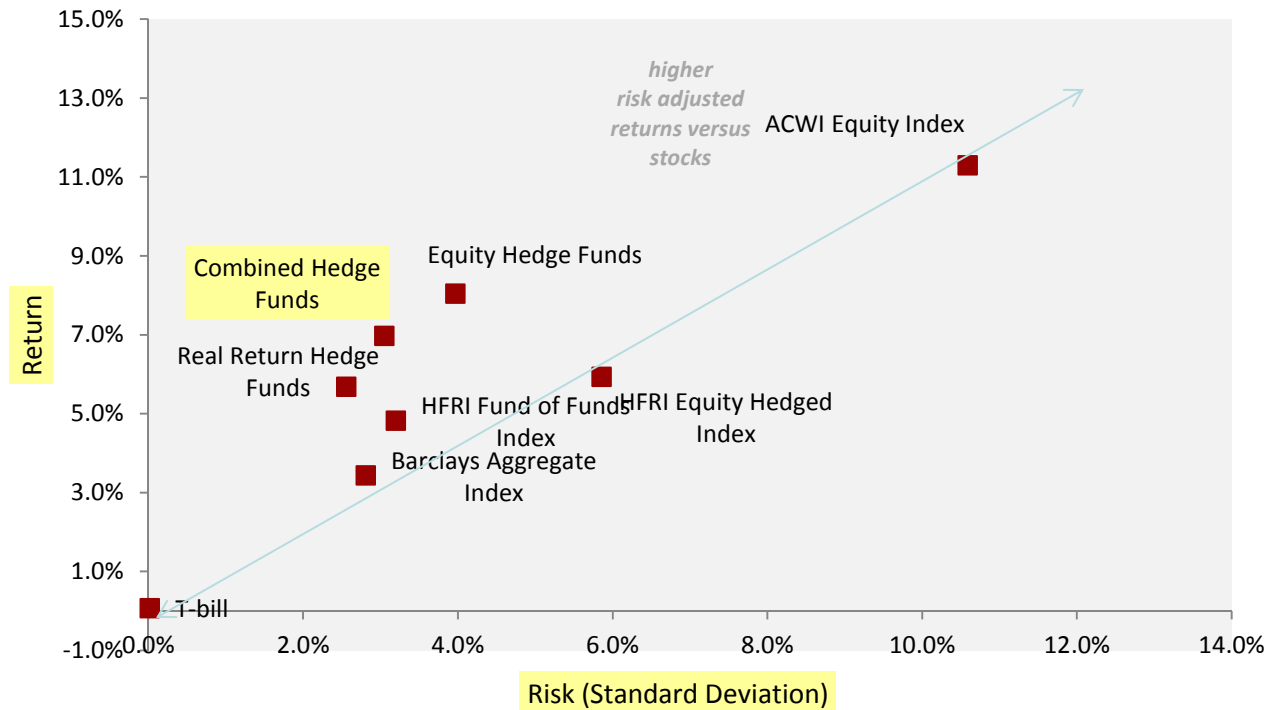
Claren Road was negatively impacted by GSE positions (FNMA and FMAC)

# Rhode Island Hedge Fund Total Return & Risk Since Inception

Rhode Island hedge fund portfolios outperformed HFRI FOF Index over the 39 month period from inception (**6.97%** versus 4.82%, respectively) and had significantly better risk-adjusted returns

Both the RI Equity hedge funds (**8.04%** return) and the Real Return hedge funds (**5.93%** return) earned returns above their respective benchmarks (HFRI Equity Hedged Index and HFRI Fund of Funds Index, respectively) and at a lower level of risk.

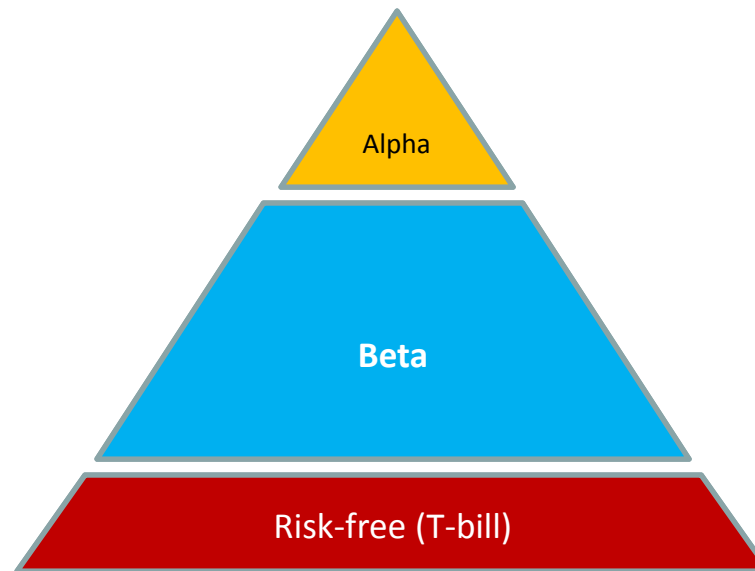
**Return and Risk (Standard Deviation)  
(Nov 1, 2011 to Jan 31, 2015)**



All assets have three return components:

- **Risk-free return:** all assets are priced to earn at least the risk free return (T-bill)
- **Beta return:** markets themselves generate investor returns to reward risk taking. These returns can be accessed at little to no fee through index funds and ETFs
- **Alpha return:** active managers try to produce excess return but often competition and fees get in their way

## Three Components of Return



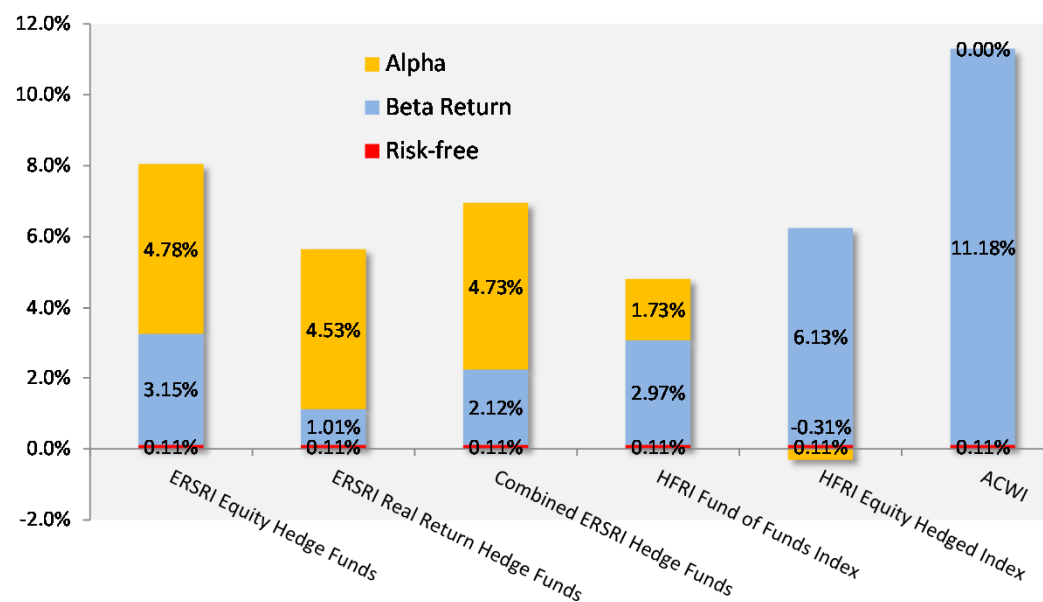
## Rhode Island Hedge Fund Return Attribution into Alpha, Beta, and Risk Free

Rhode Island hedge funds combined earned alpha equal to 4.73%, which exceeds Cliffwater's expected combined alpha of 3.75%

The equity beta for the Equity Hedge Fund portfolio equaled 0.26 over the period, well below the 0.52 average beta for equity hedge funds. The Real Return Hedge Fund portfolio had a beta of 0.08 over this period.

Both the Equity and Real Return portfolios produced strong alpha of 4.53% and 4.78%, respectively.

Annualized Returns: Nov 2011 to Jan 2015



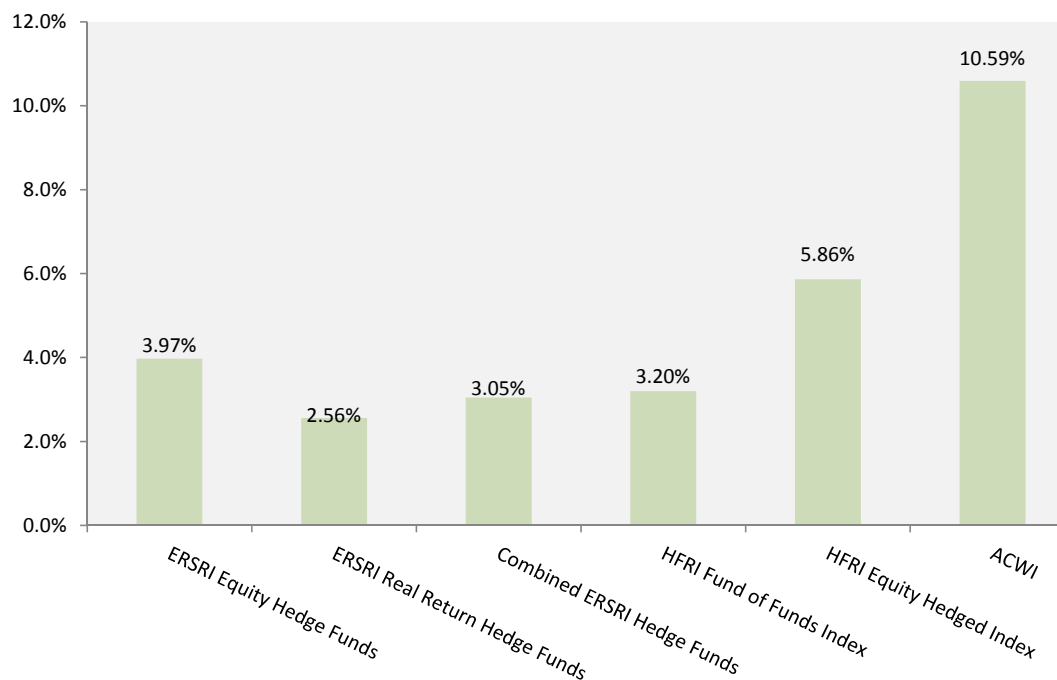
## Rhode Island Hedge Fund Risk

Rhode Island hedge funds combined have generated an annualized risk (standard deviation) 3.05% since inception versus 3.20% for the HFRI Fund of Funds Index

The Equity Hedge Fund portfolio's risk has been 3.97% versus 5.86% for the HFRI Equity Hedged Index and 10.59% for ACWI.

The Real Return portfolio's risk has been 2.56%.

Annualized Standard Deviation: Nov 2011 to Jan 2015



# Hedge Fund Portfolio Performance as of January 31, 2015

Fund	Market Value	Actual %	Returns							Std Dev	Sharpe Ratio	Incep Date	
			Jan	QTD	YTD	FYTD	1 Year	3 Year	5 Year				Incep
<b>Global Equities</b>													
Ascend Partners Fund II LP	71,865,865	6.3%	0.24%	0.24%	0.24%	2.14%	5.18%	-	-	5.71%	2.63%	2.01	Nov-11
Davidson Kempner Institutional Partners, L.P.	74,301,075	6.5%	-0.05%	-0.05%	-0.05%	-1.35%	4.00%	-	-	6.80%	2.21%	2.86	Nov-11
Elliott Associates, L.P.	81,408,764	7.1%	-1.00%	-1.00%	-1.00%	2.50%	5.55%	-	-	9.84%	3.55%	2.58	Nov-11
ESG Cross Border Equity Fund LP	45,644,458	4.0%	-1.30%	-	-	-	-	-	-	-8.65%	-	-	Jun-14
Indus Asia Pacific Fund, LP	755,671	0.1%	1.67%	1.67%	1.67%	-11.37%	-11.54%	-	-	-1.49%	7.02%	-0.22	Jan-12
Luxor Capital Partners, LP	42,437,631	3.7%	-4.62%	-	-	-	-	-	-	-15.12%	-	-	May-14
Mason Capital Ltd.	3,001,818	0.3%	0.00%	0.00%	0.00%	-13.27%	-12.39%	-	-	0.02%	7.84%	0.00	Jan-12
PFM Diversified Fund, L.P.	38,898,375	3.4%	1.00%	1.00%	1.00%	4.07%	1.32%	-	-	9.31%	9.25%	0.98	Mar-12
PFM Diversified Offshore Fund A.I., Ltd.	38,610,549	3.4%	1.03%	1.03%	1.03%	4.06%	1.11%	-	-	9.04%	9.20%	0.96	Mar-12
Samlyn Onshore Fund, L.P.	109,574,156	9.6%	1.58%	1.58%	1.58%	7.92%	11.52%	-	-	12.94%	5.65%	2.14	Jan-12
Viking Global Equities, LP	95,592,044	8.4%	1.20%	1.20%	1.20%	8.01%	13.97%	-	-	15.84%	5.59%	2.62	Dec-11
<b>Total Global Equities</b>	<b>602,090,406</b>	<b>52.7%</b>	<b>0.05%</b>	<b>0.05%</b>	<b>0.05%</b>	<b>0.04%</b>	<b>2.66%</b>	<b>-</b>	<b>-</b>	<b>8.04%</b>	<b>3.97%</b>	<b>1.89</b>	<b>Nov-11</b>
MSCI AC World Index Free - Net			-1.56%	-1.56%	-1.56%	-3.44%	6.80%	-	-	11.29%	10.59%	1.04	Nov-11
Russell 3000 Index (DRI)			-2.78%	-2.78%	-2.78%	2.32%	12.99%	-	-	17.97%	9.42%	1.78	Nov-11
HFRI Equity Hedge (Total) Index			-0.62%	-0.62%	-0.62%	-1.99%	2.19%	-	-	5.93%	5.86%	0.96	Nov-11
<b>Real Return</b>													
BlueCrest Capital LP	19,602,208	1.7%	-5.99%	-5.99%	-5.99%	-6.57%	-6.54%	-	-	-0.65%	4.18%	-0.21	Jan-12
Brevan Howard LP	82,606,033	7.2%	3.32%	3.32%	3.32%	7.22%	3.91%	-	-	3.02%	5.39%	0.52	Nov-11
Brigade Leveraged Capital Structures Fund LP	56,078,483	4.9%	0.39%	0.39%	0.39%	-3.98%	1.15%	-	-	4.01%	3.22%	1.15	Mar-12
Capula Global Relative Value Fund Ltd.	59,430,063	5.2%	1.91%	1.91%	1.91%	6.52%	9.03%	-	-	5.61%	2.14%	2.42	Dec-11
Claren Road Credit Fund, Ltd.	45,979,170	4.0%	0.66%	0.66%	0.66%	-11.35%	-	-	-	-8.04%	8.23%	-	Apr-13
DE Shaw Composite Fund LLC	78,445,755	6.9%	0.60%	0.60%	0.60%	6.81%	15.53%	-	-	14.86%	4.24%	3.23	Nov-11
Graham Global Investment Fund I SPC Ltd. - Discretionary Segregated F	56,609,748	5.0%	1.98%	1.98%	1.98%	9.03%	5.94%	-	-	4.11%	4.15%	0.92	Jan-12
OZ Domestic Partners II, L.P.	103,396,985	9.1%	0.80%	0.80%	0.80%	4.53%	6.95%	-	-	10.38%	3.65%	2.65	Nov-11
Winton Futures Fund Limited	37,415,643	3.3%	2.45%	2.45%	2.45%	15.21%	19.50%	-	-	7.22%	8.24%	0.85	Dec-11
<b>Total Real Return</b>	<b>539,564,089</b>	<b>47.3%</b>	<b>1.19%</b>	<b>1.19%</b>	<b>1.19%</b>	<b>3.59%</b>	<b>5.48%</b>	<b>-</b>	<b>-</b>	<b>5.68%</b>	<b>2.56%</b>	<b>2.05</b>	<b>Nov-11</b>
ML 3-month T-Bills			0.00%	0.00%	0.00%	0.02%	0.03%	-	-	0.07%	0.02%	-	Nov-11
HFRI Fund of Funds Composite Index			0.25%	0.25%	0.25%	1.49%	4.04%	-	-	4.82%	3.20%	1.39	Nov-11
<b>Total Hedge Fund Portfolio</b>	<b>1,141,654,494</b>	<b>100.0%</b>	<b>0.58%</b>	<b>0.58%</b>	<b>0.58%</b>	<b>1.64%</b>	<b>3.95%</b>	<b>-</b>	<b>-</b>	<b>6.97%</b>	<b>3.05%</b>	<b>2.13</b>	<b>Nov-11</b>
HFRI Fund of Funds Composite Index			0.25%	0.25%	0.25%	1.49%	4.04%	-	-	4.82%	3.20%	1.39	Nov-11

## Cliffwater Disclosures

### Important Notice

This presentation has been provided to you for the purpose of discussing an investment advisory relationship. The material contained herein is confidential and is intended for one-on-one or small group meetings with qualified, sophisticated, institutional investors. It may not be copied, transmitted, given, or disclosed to any person other than your authorized representatives. This presentation is not an advertisement and is not intended for public use for distribution. This material is not meant to be, nor shall it be construed as, an offer or solicitation of an offer for the purchase or sale of any security.

This presentation was prepared exclusively for information and discussion purposes, and is not meant to be, nor shall it be construed as, an attempt to define all information that may be material to you. All information including opinions or facts expressed herein are current as of the date appearing in this presentation and is subject to change without notice. All information has been obtained from sources believed to be reliable. No representation, warranty, or undertaking, express or implied, is given as to the accuracy or completeness of the information or opinions contained in this presentation. The information and opinions in this presentation do not constitute investment advice. The list of clients included in this presentation is a partial list selected to illustrate size and type and does not represent an endorsement or approval of Cliffwater or the advisory services provided.

This presentation may include sample or pro forma performance. Such information is presented for illustrative purposes only and is based on various assumptions, not all of which are described herein. Such assumptions, data, or projections may have a material impact on the returns shown. Nothing contained in this presentation is, or shall be relied upon as, a representation as to past or future performance, and no assurance, promise, or representation can be made as to actual returns. Past performance does not guarantee future performance.

References to market or composite indices (such as the S&P 500), benchmarks or other measures of relative market performance over a specified period of time (each, an “index”) are provided for information only. Reference to an index does not imply that a portfolio will achieve returns, volatility or other results similar to the index. The composition of an index may not reflect the manner in which a portfolio is constructed in relation to expected or achieved returns, portfolio guidelines, restrictions, sectors, correlations, concentrations, volatility or tracking error targets, all of which are subject to change over time.

- Hedge Fund Research, Inc. (“HFR”) is the source and owner of the HFR data contained or reflected in this report and all trademarks related thereto.
- Frank Russell Company (“FRC”) is the source and owner of the Russell Index data contained or reflected in this material and all trademarks and copyrights related thereto. The Russell Index data may contain confidential information and unauthorized use, disclosure, copying, dissemination or redistribution is strictly prohibited.
- Thomson Financial Inc. is the owner and/or licensor of the Venture Economics data contained or reflected in this material.