

Pennsylvania Association of Public Employee Retirement Systems

May 2014

What are Hedge Funds?

What is a Hedge Fund?¹

- Historically “a hedge fund is an alternative investment vehicle available only to sophisticated investors, such as institutions and individuals with significant assets”
-BarclayHedge¹

What is a Hedge Fund of Funds?¹

- “A fund of hedge funds is an investment vehicle whose portfolio consists of shares in a number of hedge funds”
-BarclayHedge¹
- Hedge Funds are available only to qualified investors of substantial financial means that have no need for immediate liquidity in this investment and who have reviewed detailed information concerning investment terms and risks.*

*See last page of this presentation for a general description of the risks of hedge fund investing.

¹Source 2014: **What is a Hedge Fund?** <http://www.barclayhedge.com/research/educational-articles/hedge-fund-strategy-definition/what-is-a-hedge-fund.html>

Industry Overview

Current Industry Assets¹

- Current estimated AUM (3/31/14): \$2,930.83 Billion
- Estimated FY 2013 net flows: \$61.66 Billion
- Estimated Q1 2014 net flows: \$55.12 Billion

Allocation Trends

The magic range for allocation to alternative strategies in a client's portfolio is somewhere between 10% to about 20%.²

32 “Liquid Alternative” mutual fund launches YTD 2014³

Investments in hedge funds among the 200 largest U.S. retirement plans jumped 20.3% in the year ended Sept. 30, to \$134.7 billion.⁴

CalPERS cuts \$5.3B allocation to hedge funds in half in their \$290B portfolio.⁴

1 – Evestment: “Hedge Fund Asset Flows” (April 17, 2014)

2 – InvestmentNews: “The magic range for alternatives allocations” (Mercado, 2014)

3 – DailyAlts.com “List of New Liquid Alternative Funds Launched in 2014” (5/19/2014)

4 – Pensions & Investments “CalPERS chopping hedge fund allocation” (Diamond, 2014)

Hedge Funds vs Hedge Fund of Funds

Hedge Funds vs Hedge Fund of Funds (“HFoF’s”)¹

- Hedge Funds: \$2,930.83 Billion
- Hedge Fund of Funds: \$932.4 Billion

Key Potential Advantages of HFoF’s²

- Diversification
- Economies of Scale
- Increased Liquidity
- Increased Manager Access
- Lower Negotiated Fees
- Professional Management
- Information Advantage & Education

Key Potential Disadvantages of a HFoF’s²

- Extra Layer of Fees
- Performance Fees
- Limited Transparency
- Cash Flow Effects
- Lack of Control

1 – Evestment: “*Hedge Fund Asset Flows*” (April 17, 2014)

2 – CAIA Level II: Advanced Core Topics in Alternative Investments (Wiley, 2012)

This is shown for illustrative purposes only and is not an exhaustive list. Diversification does not ensure a profit or guarantee against loss.

Historical Performance of Hedge Fund Indices

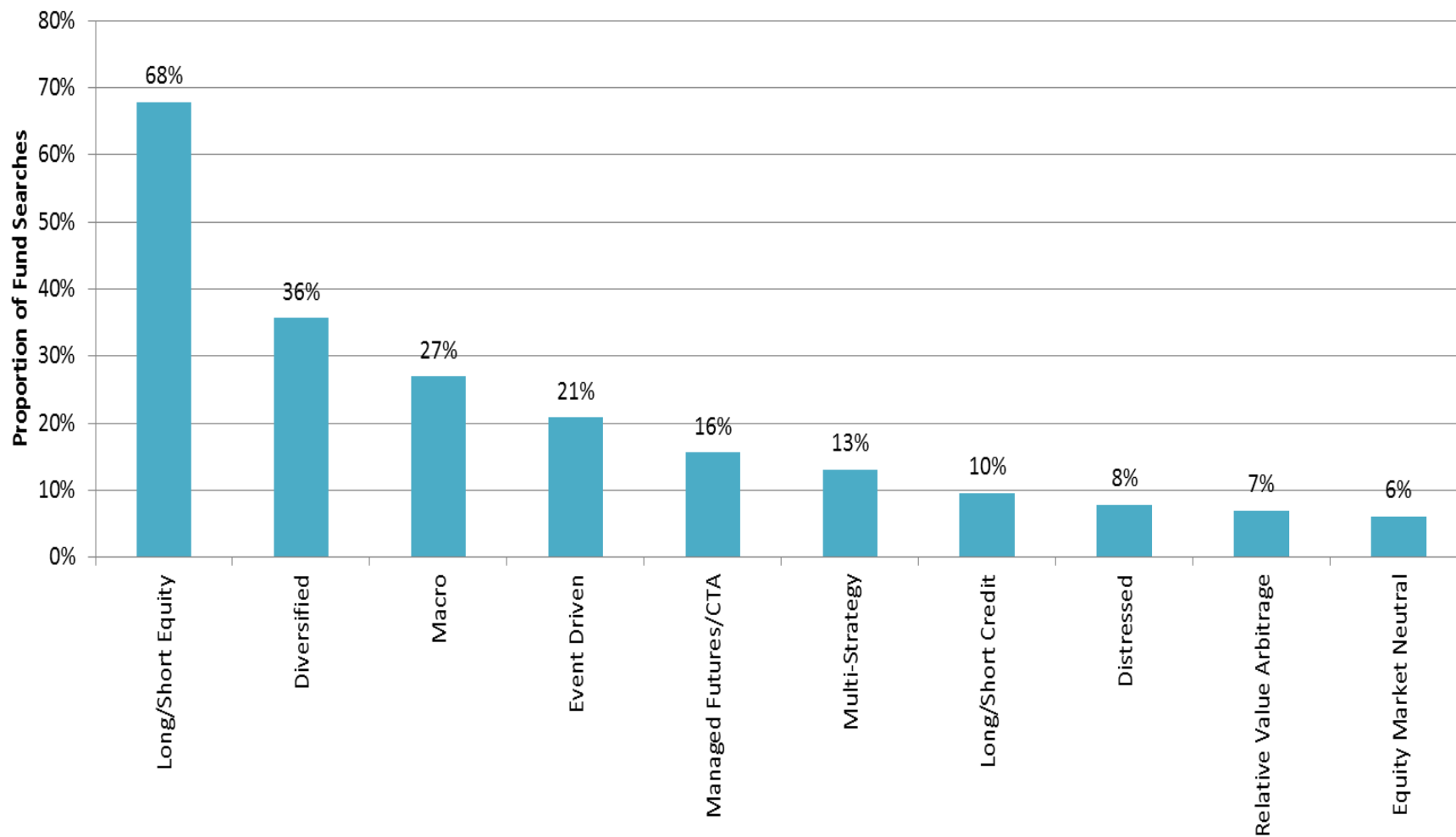
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
HFRI ED: Merger Arb 18.02%	HFRI RV: Convert Arb 13.37%	Barclays Gov't/ Credit 12.10%	HFRI Emerging Markets 39.36%	HFRI ED: Distressed 18.89%	HFRI Emerging Markets 21.04%	HFRI Emerging Markets 24.26%	HFRI Emerging Markets 24.92%	Barclays Gov't/ Credit 6.09%	HFRI RV: Convert Arb 60.17%	S&P 500 15.08%	Barclays Gov't/ Credit 9.24%	S&P 500 15.99%	S&P 500 32.36%
HFRI EH: Eq Mkt Ntrl 14.56%	HFRI ED: Distressed 13.28%	HFRI RV: Convert Arb 9.05%	HFRI ED: Distressed 29.56%	HFRI Emerging Markets 18.42%	HFRI Equity Hedge 10.60%	HFRI ED: Distressed 15.94%	HFRI Macro 11.11%	HFRI Macro 4.83%	HFRI Emerging Markets 40.24%	HFRI RV: Convert Arb 13.07%	S&P 500 2.09%	HFRI Relative Value 10.59%	HFRI Equity Hedge 14.44%
HFRI RV: Convert Arb 14.5%	HFRI Event-Driven 12.18%	HFRI Macro 7.44%	S&P 500 28.67%	HFRI Event-Driven 15.01%	HFRI Fund Wghtd Comp 9.30%	S&P 500 15.78%	HFRI Equity Hedge 10.48%	HFRI ED: Merger Arb -5.36%	HFRI ED: Distressed 28.13%	HFRI Emerging Markets 11.96%	HFRI ED: Merger Arb 1.48%	HFRI Emerging Markets 10.37%	HFRI ED: Distressed 14.04%
HFRI Relative Value 13.41%	HFRI Emerging Markets 10.36%	HFRI Relative Value 5.44%	HFRI Event-Driven 25.33%	S&P 500 10.86%	HFRI ED: Distressed 8.27%	HFRI Event-Driven 15.33%	HFRI FOF Composite 10.25%	HFRI EH: Eq Mkt Ntrl -5.93%	S&P 500 26.47%	HFRI Relative Value 11.73%	HFRI Relative Value 0.15%	HFRI ED: Distressed 10.12%	HFRI Event-Driven 12.48%
Barclays Gov't/ Credit 13.27%	Barclays Gov't/ Credit 9.40%	HFRI ED: Distressed 5.28%	HFRI Macro 21.42%	HFRI Fund Wghtd Comp 9.03%	HFRI FOF Composite 7.49%	HFRI ED: Merger Arb 14.24%	HFRI Fund Wghtd Comp 9.96%	HFRI Relative Value -18.04%	HFRI Relative Value 25.80%	HFRI Event-Driven 11.53%	HFRI ED: Distressed -1.79%	HFRI Event-Driven 8.89%	HFRI Fund Wghtd Comp 9.24%
HFRI Equity Hedge 9.09%	HFRI Relative Value 8.92%	HFRI Emerging Markets 3.70%	HFRI Equity Hedge 20.54%	HFRI Equity Hedge 7.68%	HFRI Event-Driven 7.29%	HFRI Fund Wghtd Comp 12.89%	HFRI Relative Value 8.94%	HFRI Fund Wghtd Comp -19.02%	HFRI Event-Driven 25.04%	HFRI ED: Distressed 11.26%	HFRI EH: Eq Mkt Ntrl -2.12%	HFRI RV: Convert Arb 8.58%	HFRI FOF Composite 8.79%
HFRI Event-Driven 6.74%	HFRI Macro 6.87%	HFRI FOF Composite 1.02%	HFRI Fund Wghtd Comp 19.55%	HFRI FOF Composite 6.86%	HFRI Macro 6.79%	HFRI Relative Value 12.37%	Barclays Gov't/ Credit 7.75%	HFRI FOF Composite -21.36%	HFRI Equity Hedge 24.55%	HFRI Equity Hedge 10.58%	HFRI Event-Driven -3.30%	HFRI Equity Hedge 7.41%	HFRI RV: Convert Arb 7.79%
HFRI Fund Wghtd Comp 4.98%	HFRI EH: Mkt Ntrl 6.71%	HFRI EH: Eq Mkt Ntrl 0.98%	HFRI FOF Composite 11.61%	HFRI Relative Value 5.58%	HFRI ED: Merger Arb 6.25%	HFRI RV: Convert Arb 12.17%	HFRI ED: Merger Arb 7.05%	HFRI Event-Driven -21.82%	HFRI Fund Wghtd Comp 19.98%	HFRI Fund Wghtd Comp 10.49%	HFRI Macro -4.16%	HFRI Fund Wghtd Comp 6.36%	HFRI Relative Value 6.98%
HFRI FOF Composite 4.07%	HFRI Fund Wghtd Comp 4.62%	HFRI ED: Merger Arb -0.87%	HFRI RV: Convert Arb 9.93%	HFRI Macro 4.63%	HFRI EH: Eq Mkt Ntrl 6.22%	HFRI Equity Hedge 11.71%	HFRI Event-Driven 6.61%	HFRI ED: Distressed -25.20%	HFRI ED: Merger Arb 11.63%	HFRI Macro 8.61%	HFRI RV: Convert Arb -5.16%	Barclays Gov't/ Credit 5.07%	HFRI EH: Eq Mkt Ntrl 6.65%
HFRI ED: Distressed 2.78%	HFRI FOF Composite 2.80%	HFRI Fund Wghtd Comp -1.45%	HFRI Relative Value 9.72%	Barclays Gov't/ Credit 4.54%	HFRI Relative Value 6.02%	HFRI FOF Composite 10.39%	S&P 500 5.49%	HFRI Equity Hedge -26.65%	HFRI FOF Composite 11.46%	Barclays Gov't/ Credit 6.99%	HFRI Fund Wghtd Comp -5.25%	HFRI FOF Composite 4.79%	HFRI Emerging Markets 5.60%
HFRI Macro 1.97%	HFRI ED: Merger Arb 2.76%	HFRI Event-Driven -4.30%	HFRI ED: Merger Arb 7.47%	HFRI EH: Eq Mkt Ntrl 4.15%	S&P 500 4.91%	HFRI Macro 8.15%	HFRI RV: Convert Arb 5.33%	HFRI RV: Convert Arb -33.71%	Barclays Gov't/ Credit 4.81%	HFRI FOF Composite 5.60%	HFRI FOF Composite -5.73%	HFRI EH: Eq Mkt Ntrl 2.98%	HFRI ED: Merger Arb 4.82%
S&P 500 -9.09%	HFRI Equity Hedge 0.40%	HFRI Equity Hedge -4.71%	Barclays Gov't/ Credit 5.07%	HFRI ED: Merger Arb 4.08%	Barclays Gov't/ Credit 2.55%	HFRI EH: Eq Mkt Ntrl 7.32%	HFRI EH: Eq Mkt Ntrl 5.29%	S&P 500 -36.99%	HFRI Macro 4.37%	HFRI ED: Merger Arb 4.60%	HFRI Equity Hedge -8.38%	HFRI ED: Merger Arb 2.76%	HFRI Macro -0.22%
HFRI ED: Merger Arb 18.02	S&P 500 -11.85%	S&P 500 -22.09%	HFRI EH: Eq Mkt Ntrl 2.44%	HFRI RV: Convert Arb 1.18%	HFRI RV: Convert Arb -1.86%	Barclays Gov't/ Credit 4.07%	HFRI ED: Distressed 5.08%	HFRI Emerging Markets -37.26%	HFRI EH: Eq Mkt Ntrl 1.43%	HFRI EH: Eq Mkt Ntrl 3.16%	HFRI Emerging Markets -13.99%	HFRI Macro -0.06%	Barclays Gov't/ Credit -2.47%

PAST PERFORMANCE NOT NECESSARILY INDICATIVE OF FUTURE RESULTS

Alternative Investment Management Association "Apples and Apples" (2014); Index returns are unmanaged and generally do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income. It is not possible to invest in an index.

Allocation Trends- Hedge fund strategies sought by investors over the next 12 months, searches issued in Q1 2014

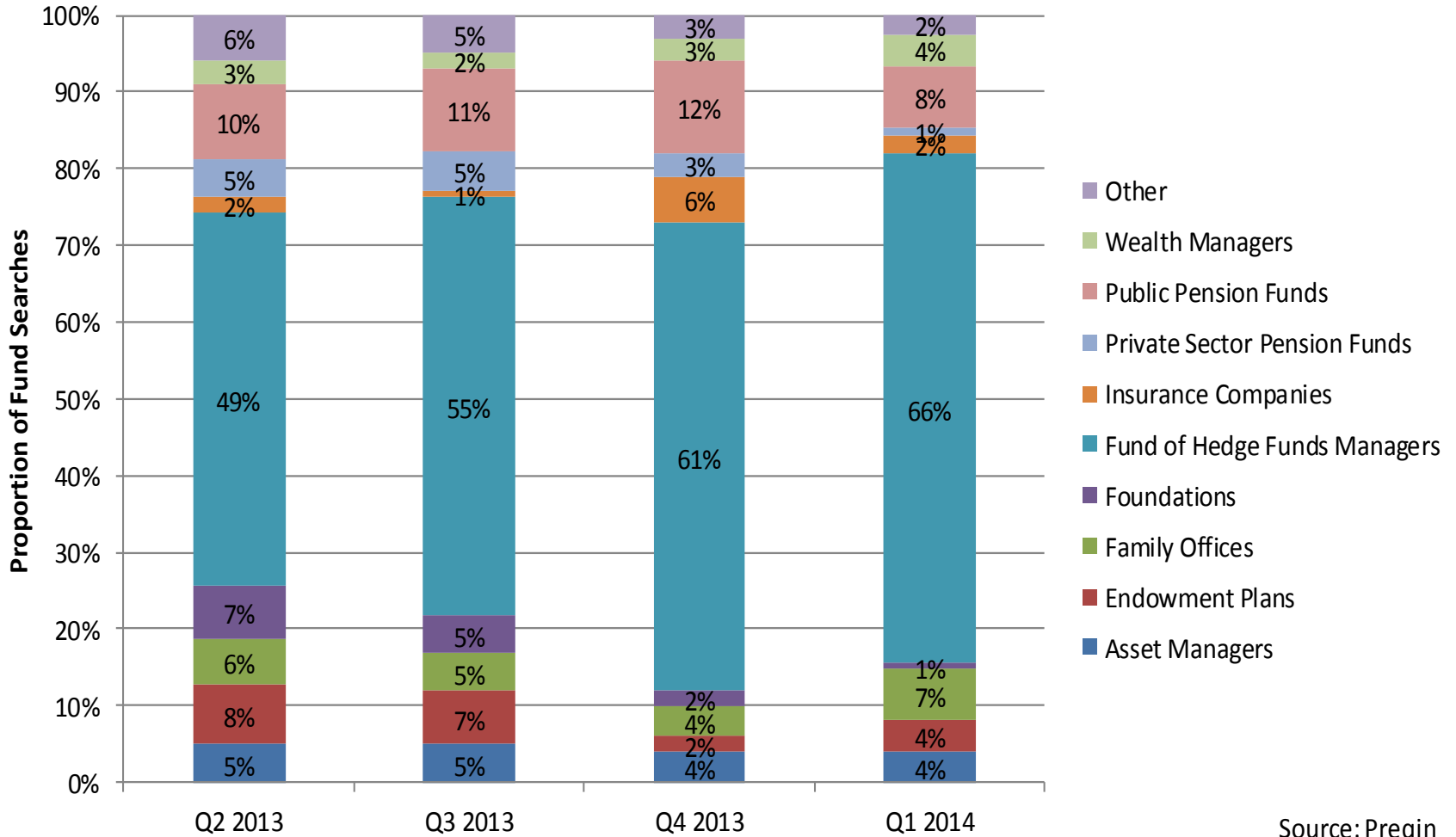
Fig. 1: Hedge Fund Strategies Sought by Investors over the Next 12 Months, Searches Issued in Q1 2014



Source: Prequin

Allocation Trends

Fig. 4: Breakdown of Fund Searches Initiated by Investor Type, Q2 2013 - Q1 2014



Source: Preqin

Forward Views

SSARIS' Current Outlook

Long Short Equity	Decrease
Diversified	Neutral
Macro	Increase
Event Driven	Increase
Managed Futures/CTA	Decrease
Multi-Strategy	Neutral
Long /Short Credit	Increase
Distressed	Neutral
Relative Value Arbitrage	Decrease
Equity Market Neutral	Neutral

The views presented in this document are current as of March 31, 2014 . There is no assurance that the markets will behave as we have anticipated or that our forecasts will be attained.

Current Trends

Current Trends – Retail Liquid Alternatives

“Investment strategies traditionally utilized by private hedge and private equity funds packaged for individuals, generally as mutual funds or UCITS” ¹

1 – SEI “*The Retail Alternatives Phenomenon*”, 2013

Current Trends – Less Liquid Hedge Funds

- Demand for liquidity
- Demand for alpha

Illiquidity Premium is the return earned by an investor for holding an illiquid investment. The less liquid the investment, the higher the premium needed to entice investors.

Examples

- Bank loans
- Claims/receivables



Risks of Hedge Fund Investing

Hedge Fund Investing involves significant risk. This section explains some of the general risks involved in investing in an alternative investment strategy, including possible loss of principal. You should clearly understand the significant degree of risk involved with investing in any hedge fund investment strategy. Hedge Funds are available only to qualified investors of substantial financial means that have no need for immediate liquidity in this investment and who have reviewed detailed information concerning investment terms and risks.

Hedge Funds may use leverage, are speculative, involve a high degree of risk and may not provide diversification; performance can be volatile, and an investor could lose a substantial amount or all of the investor's investment; the investor does not retain any trading authority over assets placed with the investment manager; an investor's account may not be liquid or transferable; fees and expenses may offset trading profits; the investment manager may be subject to certain conflicts of interest; and the investment manager may execute a substantial portion of the trades on foreign exchanges.

Benchmarks and Indices.

All the historical benchmark and index performance results shown are provided exclusively for comparison purposes only so as to provide general comparative information. Index returns are unmanaged and generally do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income. It is not possible to invest in an index.

Presentation is not investment advice or a solicitation

The information provided herein does not constitute investment advice and should not be relied upon as such. It does not take into account any investors' particular investment objectives, strategies, tax status or investment horizon. We encourage you to consult your tax or financial advisor. This does not constitute an offer to sell to any person, or a solicitation of an offer to purchase, the securities of any issuer or pooled investment vehicle

Expiration 5/31/15