HEDGE FUNDS: A TEN-YEAR *AND* THREE-YEAR ANNIVERSARY

INTRODUCTION

Windrose Advisors is celebrating its 10th Anniversary in 2019! From day one we've enjoyed an exceptionally high-quality client base (more on that to follow) while leaning heavily into alternative investments for portfolio construction. From private investments in real estate, private equity and private credit to more liquid hedge funds, we recognize the value of each to successfully generate attractive risk adjusted returns.

On July 1st, 2016, in what now seems like an eternity ago, Windrose Advisors took an important leap forward by structuring hedge fund allocations into commingled fund structures (or hedge fund sleeves) for clients. This move offered many benefits to clients, such as offering fully diversified hedge fund exposure at low minimums as well as reduced administrative complexity. In addition, the investment team was provided enhanced flexibility and speed of execution while removing unnecessary friction in the investment process. Yet at the time it seemed controversial to focus so much effort on the type of investments that had been reviled by the press and investment luminaries for its broadly disappointing performance in the past decade since the Great Financial Crisis. As our hedge fund sleeve program reached an important milestone last month with a three-year track record, it is time to take stock of our accomplishments and consider why we think we can sustain superior returns in the future.

[1]Inception date 7/1/2016. As of 6/30/19. Net of manager fees, gross of WA Advisory fee.
[2]Excess return of an investment relative to the return of a benchmark index.
[3]The average return earned in excess of the risk-free rate per unit of volatility or total risk.

PERFORMANCE REVIEW

Table 1 summarizes key performance statistics for our two hedge fund sleeves against a global equity benchmark (MSCI All Country World Index, or ACWI) for the three years ended June 2019.

Both sleeves delivered what can be described as equity-like returns, but at much reduced levels of equity market sensitivity (beta) and high levels of active management return (alpha).

(Table 1)

Net of Manager Fees	WA Absolute Return	WA Market Directional	MSCI ACWI
Return Since Inception[1]	9.33%	11.32%	11.62%
Beta to MSCI ACWI	0.35	0.57	1.00
Alpha[2]	5.21%	4.42%	-
Max Drawdown	-5.12%	-9.55%	-14.25%
Sharpe Ratio[3]	1.35	1.36	0.91
Volatility	5.92%	7.32%	11.32%

Traditional measures of risk such as volatility and maximum drawdown are also much improved compared to equity markets, resulting in high risk-adjusted returns (as measured by the Sharpe ratio[2]).

How does this compare to our expectations three years ago? When we set up the sleeves, we sought to create two distinct portfolios:

- A Market Directional sleeve acting as an equity alternative, thus accepting significant equity market exposure. We targeted equity-like performance with 60% of an equity risk budget. Returns in this sleeve tend to derive from security selection by specialist managers in certain sectors or strategies.
- An Absolute Return sleeve acting as an alternative to bonds, thus aiming for low equity market exposure. We targeted a 20% equity risk budget. Returns in this sleeve tend to be driven by a mix of complementary strategies tracking macro-economic trends, spreads or special situations with lower exposure to the direction of markets in general.

In each sleeve, we hoped to achieve outperformance (alpha) of 3% to 5%.

The Market Directional sleeve stayed close to its desired risk exposure (0.57 vs. 0.60 target). However, strategies in the Absolute Return sleeve ended up more correlated to equity markets than historically the case (0.35 vs. 0.20 target).

While outperformance fell comfortably within expectations for the Market Directional sleeve (alpha of 4.42% vs. target range of 3-5%), results for the Absolute Return sleeve dramatically exceeded what we hoped to accomplish (alpha of 5.21% vs. target range of 3-5%).

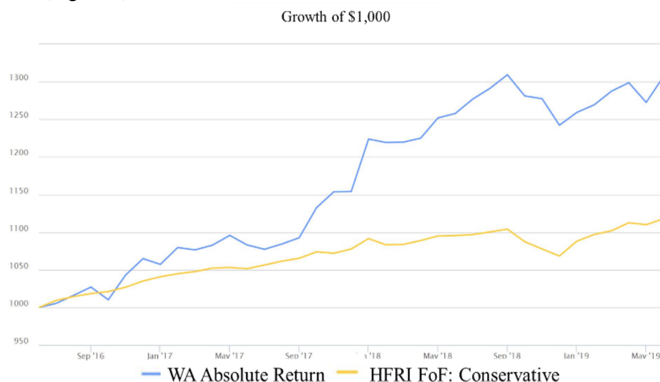
In both cases, we are very pleased with the performance of our hedge fund sleeves relative to our defined parameters. Results have also exceeded expectations relative to benchmarks.

We benchmark the Market Directional sleeve against a peer group of more aggressive fund of funds, the HFRI FoF Strategic index. Our sleeve performed well, exceeding either benchmark (Figure 1).

(Figure 1)

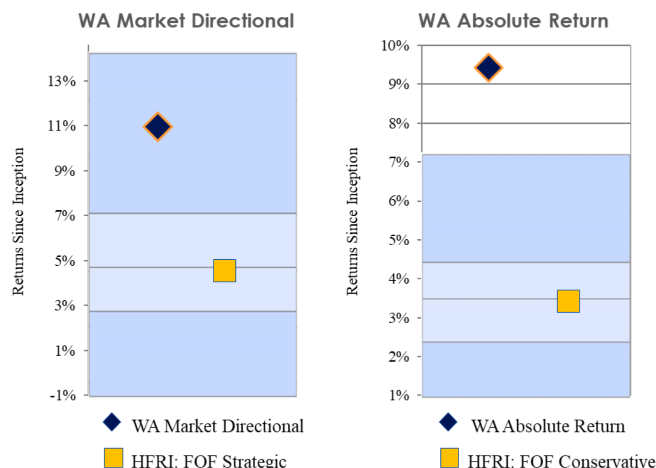
We benchmark the Absolute Return sleeve against a peer group of more conservative fund of funds, the HFRI FoF Conservative index. As mentioned above, performance surpassed expectations (Figure 2).

(Figure 2)



Relative to peers, the Market Directional sleeve[4] ranks in the 10th percentile while the Absolute Return sleeve[5] ranks in the 1st percentile (figure 3).

(Figure 3)

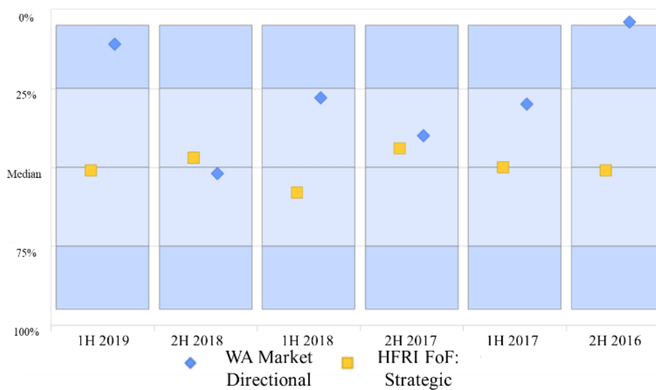


To further flush out the consistency and persistence of returns, we analyzed successive six-month periods over the duration of the three-year time period.

As shown in Figure 4, the Market Directional sleeve tracked in the top quartile for two periods, second quartile for three and third quartile for one. The sleeve outperformed its peer benchmark in five of the six periods.

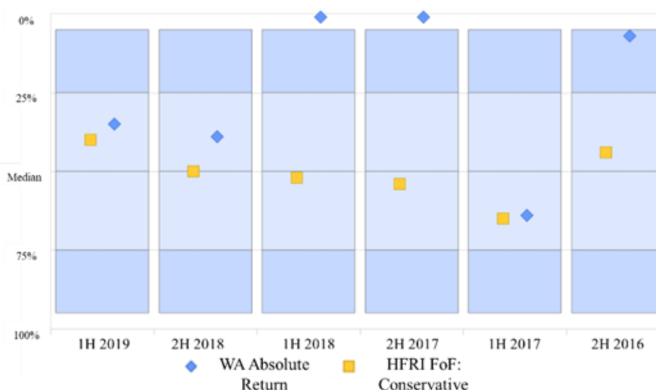
[4] Peer group composed of members of the HFRI FoF Strategic index.
[5] Peer group composed of members of the HFRI FoF Conservative index.

(Figure 4)



Similarly, as shown in Figure 5 below, the Absolute Return sleeve tracked in the top quartile for three periods (including two as first percentile), second quartile for two and third quartile for one. The sleeve outperformed its peer benchmark in all six periods.

(Figure 5)



SUSTAINING OUR TRACK RECORD

The performance of our sleeves seems to contradict the commonly held belief that hedge funds don't add meaningful returns to a portfolio. What are the factors that help explain how we achieved these returns and why do we think they can be sustained in the future?

As an independent advisor focused on ultra-high net worth families, endowments and foundations, we are blessed with high quality capital. Many of our clients are successful entrepreneurs or investors that understand the benefits of patient investing. By focusing on long-term returns, we can time-arbitrage markets and extract an illiquidity premium, both of which are well suited to alternative investments.

At close to $3.0 billion in assets under advisement, we are large enough to be relevant and desirable capital to investment managers. Yet our size is also small enough to afford us the ability to participate in a broader universe of smaller investment opportunities that can still have a meaningful impact on portfolios. Unencumbered by too large an asset base, we believe our size is a competitive advantage.

Besides access to strategies, sourcing is another differentiating factor. With nine team members averaging over 12 years of experience, we have a well-resourced investment group with experience across assets classes and market cycles as well as deep networks with allocators and managers alike. The investment team is organized as generalists, unconstrained by formal asset class definitions and free to seek best in class talent across a broad swath of strategies. We have strived to remove frictions to good decision-making and allow team members to make these sleeves a capstone project expressing their best investment ideas developed over decades in the business.

Finally, Windrose Advisors operates a focused business model centered on investment management. Performance is therefore paramount to success, promoting alignment with our clients.

In addition to these overarching firm characteristics, Windrose Advisors relies on rigorous manager selection and portfolio construction processes to ensure continue success.

MANAGER SELECTION

Like all asset allocators, we come across impressive track records. But the value we add is in understanding the drivers of performance and differentiating lucky managers whose performance is likely to mean-revert, from truly skilled investors who can sustain superior returns.

Quantitative and qualitative factors play a role in this process. Nowadays, a wealth of information is available, and we rely on technology to leverage that information into portfolio insights.

This type of analysis is useful but usually insufficient. For example, emerging managers with

short track records, or out of favor strategies with poor recent statistics don't lend themselves well to these analyses. In most cases, qualitative interpretation of markets and strategies takes precedence, and this is where a highly experienced team makes a difference as pattern recognition helps support judgement.

Among some of the principles that we adhere to is that size is generally the enemy of performance. Larger portfolios get invested beyond the original circle of competence of a manager, or outside of the original opportunity set, leading to declining performance. As assets grow, business management considerations detract from investment management, and the prospect of higher asset-based fees creates misalignment of interest. We therefore consistently favor smaller, capacity constrained strategies, where access is limited almost by definition. This aligns particularly well with our asset base where we can invest for the long term and act as a meaningful partner.

We also subscribe to the idea that it is difficult for an investment manager to excel at many different approaches. We therefore prefer specialist managers, be it by sector or strategy, that can develop high conviction portfolios by building deep insights into a narrow segment of financial markets. These concentrated strategies tend to bring higher volatility individually, which we are happy to diversify away via portfolio construction.

PORTFOLIO CONSTRUCTION

Because many of our clients are taxable investors, we favor strategies that can offer higher potential returns, net of fees and taxes. Higher potential returns frequently come at the expense of higher volatility (for example through exposure to smaller capitalization stocks). This is where our portfolio construction process helps diversify away the risk of individual strategies.

When building an investment sleeve, we strive to pair managers with non-overlapping positions or complementary strategies (for example, a credit manager vs. an equity strategy). Our efforts lead to generally low correlation among strategies within a sleeve, helping increase the diversification potential.

In the Market Directional sleeve, the highest manager pair correlation is 0.68 (on a scale of -1.00 to +1.00, where +1.00 implies a perfect relationship), the lowest is -0.22 and the average correlation among all strategies is 0.27. This is a small value for a group of strategies that tends to have high exposure to equity markets. This results from the use of specialist strategies with minimal overlapping positions (for example, a technology and a health care specialist will have no positions in common).

In the Absolute Return sleeve, the highest manager pair correlation is 0.60, the lowest is -0.17 and the average correlation among all strategies is 0.18. The average pair-wise correlation value is even smaller in this case as most strategies are completely differentiated (for example, a market neutral, global macro or trend following strategies pursue radically different return drivers).

We seek to balance a desire for high diversification among strategies with a need for concentration around our best ideas to allow for maximum contribution to performance. This is reflected in the relatively low number of managers included in each sleeve. We built our sleeves targeting 10-15 managers for the Market Directional sleeve and 5-10 for the Absolute Return sleeve. The larger number of funds in the Market Directional sleeve is a function of the higher volatility of each individual strategy.

By comparison, most of our peers include 20-25 names in their portfolios using strategies typically in line with our Market Directional sleeve (i.e. fundamental stock pickers). Research suggests that hedge fund portfolios under 20 names can achieve the best returns while portfolios over 30 names suffer from "di-worse-ification"[6].

Our effort toward efficient diversification is a key reason we can afford to pursue higher risk-higher return strategies in a more concentrated portfolio

[6] Barclays Bank: 2019 Global Hedge Fund Industry Outlook and Trends.

that can deliver superior returns to our clients over time.

LOOKING AHEAD

As the economic cycle nears its conclusion, we believe active management will become increasingly rewarded and our hedge fund portfolios will be at the forefront of this revival.

For clients, the unusual separation of equity-like market directional strategies and more defensive absolute return strategies offers the ability to customize portfolios for their desired risk profile.

Warren Buffett once quoted that “risk comes from not knowing what you’re doing.” At Windrose, every decision, is anchored in academic research and past experience.

With key structural advantages, a well-established process for manager selection and portfolio construction, and well-rounded investment team with sourcing and diligence skills, Windrose Advisors is well positioned to continue to deliver superior performance in our hedge fund portfolios and across all asset classes in the years ahead.

DISCLOSURES

This presentation is not an offer or a solicitation to buy or sell securities. The information contained in this presentation has been compiled from third party sources and is believed to be reliable; however, its accuracy is not guaranteed and should not be relied upon in any way, whatsoever. This presentation may not be construed as investment advice and does not give investment recommendations. Any opinion included in this report constitutes the judgment of Windrose Advisors as of the date of this report, and are subject to change without notice.

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Performance is gross of Windrose Advisors' advisory fee. Performance reflects the reinvestment of dividends and other earnings. A client's return would be reduced by such fees and expenses, which are described in Form ADV Part 2 which is available upon request.

Additional information including management fees and expenses is provided on WA's Form ADV Part 2.

Alpha: A measure of performance on a risk-adjusted basis. Alpha takes the volatility (price risk) of a manager and compares its risk-adjusted performance to a benchmark index.
Beta: A measure of the volatility, or systematic risk, of position in comparison to the unsystematic risk of the entire market.
Downside Capture: A statistical measure of an investment manager's overall performance in down-markets. It is used to evaluate how well an investment manager performed relative to an index during periods when that index has dropped. The ratio is calculated by dividing the manager's returns by the returns of the index during the down-market and multiplying that factor by 100.
Annualized Return: The annualized return is the geometric mean of the returns with respect to one year.
Standard Deviation (Risk): A statistical measure of volatility that is often used as an indicator of the 'risk' associated with a return series. Standard deviation of return measures the average deviations of a return series from a its mean. A large standard deviation implies that there have been large swings in the return series of an investment.
Sharpe Ratio: A measure of reward per unit of risk, where standard deviation represents risk. The Sharpe ratio is calculated as the portfolio's excess return over the risk-free rate divided by the portfolio's standard deviation.

- The MSCI ACWI captures large and mid-cap representation across 23 Developed Markets (DM) and 23 Emerging Markets (EM) countries. With 2,478 constituents, the index covers approximately 85% of the global investable equity opportunity set.

- HFRI FoF Strategic Index FOFs classified as "Strategic" exhibit one or more of the following characteristics: seeks superior returns by primarily investing in funds that generally engage in more opportunistic strategies such as Emerging Markets, Sector specific, and Equity Hedge; exhibits a greater dispersion of returns and higher volatility compared to the HFRI Fund of Funds Composite Index. A fund in the HFRI FOF Strategic Index tends to outperform the HFRI Fund of Fund Composite Index in up markets and underperform the index in down markets.

- HFRI FoF Conservative Index FOFs classified as "Conservative" exhibit one or more of the following characteristics: seeks consistent returns by primarily investing in funds that generally engage in more "conservative" strategies such as Equity Market Neutral, Fixed Income Arbitrage, and Convertible Arbitrage; exhibits a lower historical annual standard deviation than the HFRI Fund of Funds Composite Index. A fund in the HFRI FOF Conservative Index shows generally consistent performance regardless of market conditions.