alpha-DNA Investment Management

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Wayne is the co-founder of Alpha DNA Investment management. Alpha DNA is a hedged equity manager that deploys a systematic, quantitative and repeatable approach to its equity selection and hedge construction.

Alpha DNA is changing the hedged equity landscape using alternative data and machine learning to construct a unique equity portfolio.

Wayne is the co-author of the book, Buy & Hedge – a book about using hedges to defend the downside in your equity portfolio.

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White Paper

Title: In Hedged Equity, the Capture Ratio is the key to effective diligence

Executive Summary:

The Hedged Equity investment space makes a very promising offer: the balance of Growth and Downside Protection in the same portfolio. It is a compelling promise and it has led to increased adoption in this space. But it is not a coincidence that the strategies in this space that are growing fastest are the ones with the highest Capture Ratio. And the strategies with the lowest Capture Ratios are losing investor interest.

Capture Ratio is calculated as the annualized returns of the Hedged Equity strategy divided by the annual returns of the index that the strategy is designed to track. Simply put, it is the amount of the returns of the underlying index that the manager has managed to capture after the impact of the tactical decisions around hedging and equity construction.

A Capture Ratio that is less or more than expected should lead to specific diligence questions of the investment manager. Every hedged equity strategy contains equity exposure, a hedge, and usually some tactical efforts to pay for the cost of the hedge. If the capture ratio is not as expected, the investor should ask which of these components caused the divergence in the Capture Ratio. The investor can then determine whether the manager's decisions were consistent with the strategy's promise.

At Alpha DNA, we have achieved a very high Capture Ratio for our strategies compared to our target indices while also maintaining a hedge that has proven very effective in market declines like Q4 2018 and Q1 2020.

Schedule a meeting with us to drill down more on how we have achieved such a high capture ratio at 443-288-6444 or email us at wayne.ferbert@alphadnaim.com

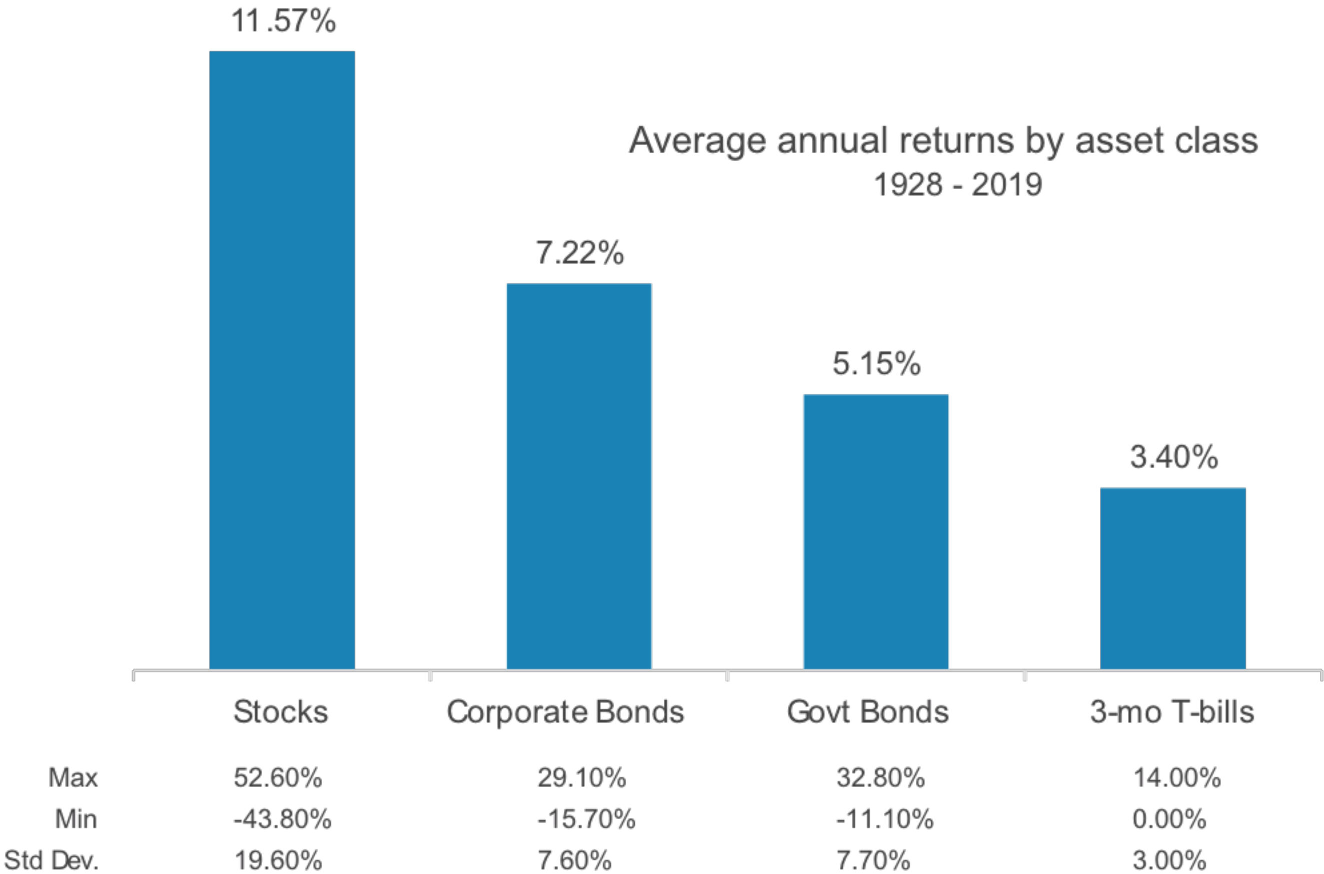
Bonus Section: Check out the end of this paper for a discussion of another very effective Diligence tool: Downside Scenario Analysis.

Introduction

The Need for Equity exposure

Investment advisors and their clients know that they need to have a long-term horizon for investing to be sure to reach their long-term investment goals. Long term horizons that require significant capital appreciation typically will require exposure to equities to reach those investment goals. Take a look at the Chart 1 below and one can appreciate the need for exposure to equities given the more limited return profile of the other prominent asset classes. Equity exposure is virtually a requirement for long term investors.

Chart 1



	Stocks	Corporate Bonds	Govt Bonds	3-mo T-bills
Max	52.60%	29.10%	32.80%	14.00%
Min	-43.80%	-15.70%	-11.10%	0.00%
Std Dev.	19.60%	7.60%	7.70%	3.00%

Source: http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html

The Volatility of Equity Markets

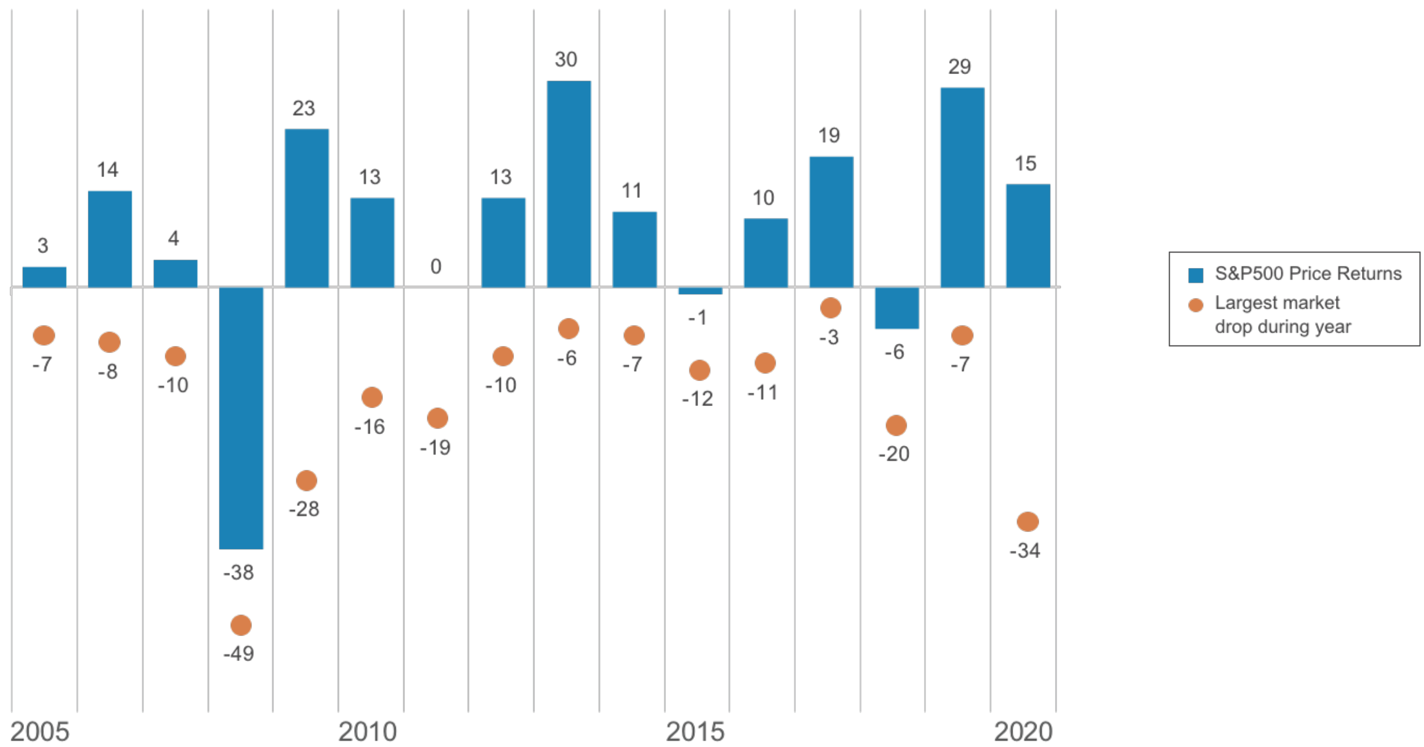
The return profile of the Equity asset class is materially higher than its bond counterparts. However, equity markets also offer higher volatility and potential for greater losses. The potential for material losses tends to shake many investors and frequently leads to ill-timed efforts to exit and re-enter the markets.

While market corrections are regular occurrences and the average compound return for equities is still much higher than bonds, the corrections will still cause angst among investors and lead to poor investment decisions - like reducing

exposure at the wrong time. Imaging the investor nearing retirement that suffers a material correction just ahead of the time period in retirement when they must spend down their retirement savings. The investor is experiencing the real fear that he/she might outlive their savings which is a very powerful fear.

Chart 2 below shows the frequency and magnitude of the corrections of just the last 15 years. If you are exposed to equity markets, it is not a question of 'if' there will be a market correction – only a matter of when.

Chart 2

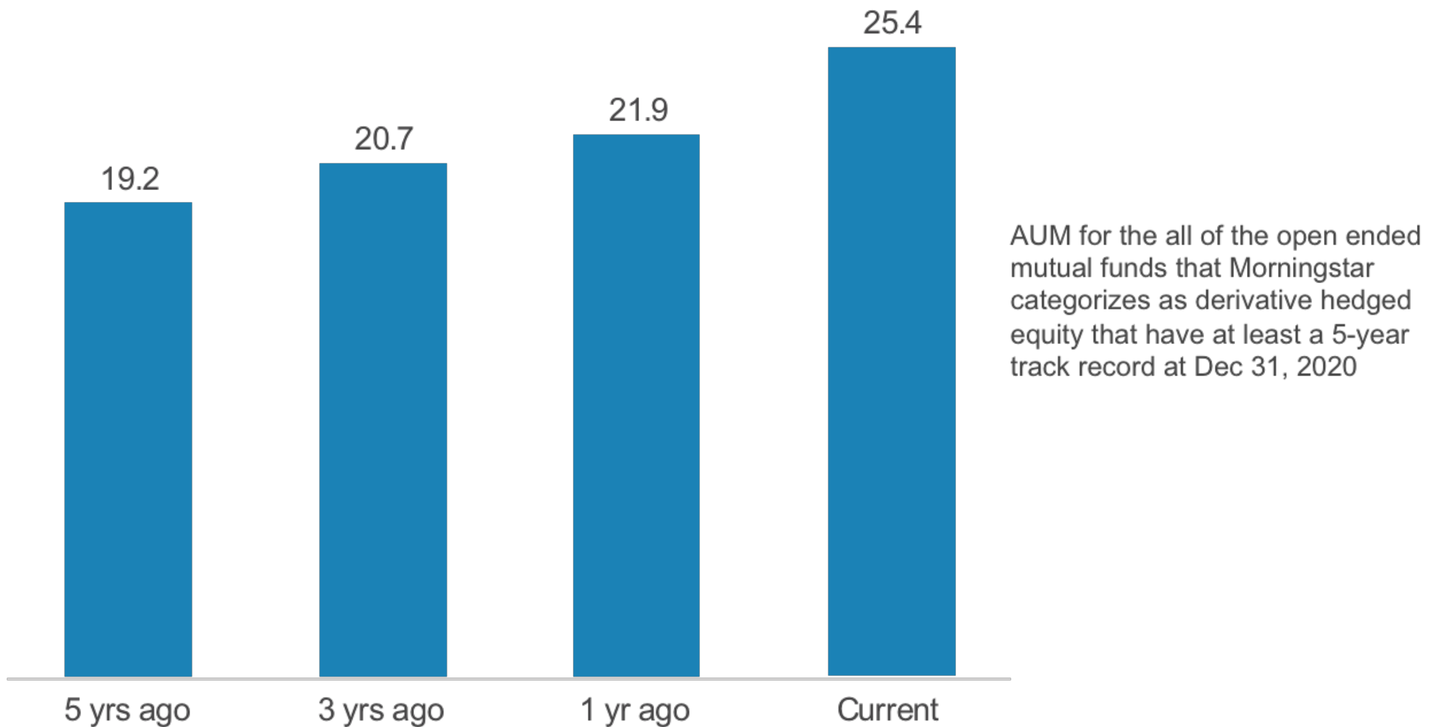


Hedged Equity has grown in acceptance and AUM

The need for equity exposure and the fear of material corrections is what led to the creation of the Hedged Equity investment space. The Hedged Equity category attempts to deliver a balance between Growth and Downside Protection in the same portfolio. In other words, it looks to deliver on the two needs of most clients in one strategy.

Morningstar tracks the category and labels it the Derivatives Hedged Equity category. Within that space, there are 30 Open ended Mutual funds with at least a 5 year track record as of December 31, 2020. The space has grown over the last several years as one can see in Chart 3 on the next page.

Chart 3



Within the Hedged Equity category tracked by Morningstar, there have been some recent winners and losers in the category in terms of Net New AUM. The offering from JP Morgan has grown to become the largest fund in this space as it has grown to $14 billion AUM at December 31, 2020 from only $1.5 billion AUM at the end of 2017. This is not a coincidence. The JP Morgan fund has provided a solid capture ratio in this space. Meanwhile, the 2nd and 3rd largest funds from at the end of 2017 were the Swan Defined Risk flagship fund and the Gateway A fund. They were a combined $11.7 billion in AUM at the end of 2017. However, at the end of December 2020, these two funds had combined AUM of only $8.3 billion. Over this window from Jan 1, 2018 to Dec 31, 2020, the market has grown significantly. But the capture ratio of these two funds was below average in this time window.

Understanding Capture Ratio

We defined the Capture Ratio in our Executive Summary at the top of this paper but let's recap it here.

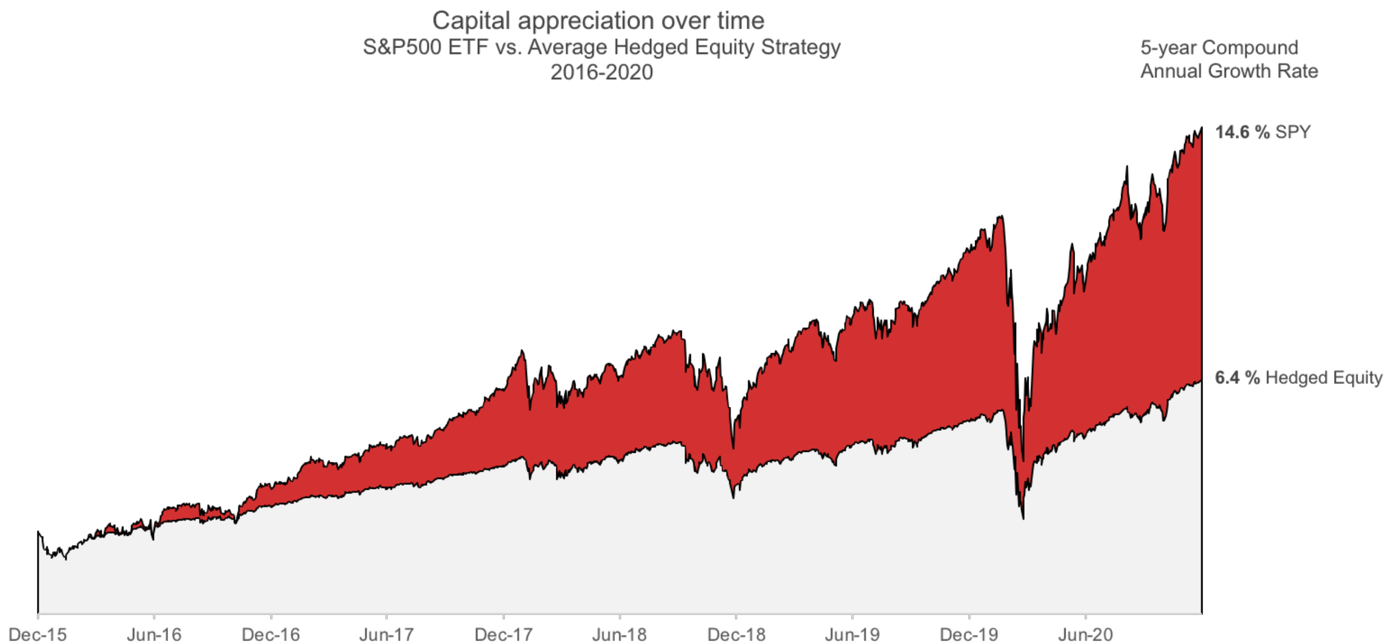
Capture Ratio is calculated as the annualized returns of the Hedged Equity strategy divided by the annual returns of the index that the strategy is designed to track. Simply put, it is the amount of the returns of the underlying index that the manager has managed to capture after the impact of the tactical decisions around hedging and equity construction.

Most Hedged Equity strategies specifically identify an index that it proposes to create its equity exposure to mimic. This is also then usually the same index that the hedge will be constructed from.

As hedged equity offers the promise of Growth and Downside Protection, the Capture Ratio becomes an effective measure for how much of the Growth is delivered to the investor by the strategy. Equity exposure is desired to achieve the investor's long term goals – but a material amount of the equity index returns are required to deliver on the appreciation required for those long term goals.

Unfortunately, the Hedged Equity space has achieved a very middling Capture Ratio recently. Chart 4 below shows the Capture Ratio of the last 5 years for the 5 largest Open-ended Mutual Funds categorized by Morningstar as Derivative Hedged Equity as of December 31, 2020. The fund was required to have at least a 5-year track record to be included.

Chart 4



Source: Alpha DNA – Hedged equity data represents the daily returns compounded daily of the 5 largest funds as of December 31, 2020 that have at least a 5-year track record in the Morningstar category Derivative Hedged Equity.

The index used in this analysis is the S&P 500 which is representative for these five funds. At 6.4% annual returns for these five funds, that is a 44% capture ratio on an annualized basis when compared to the largest ETF that tracks the S&P 500 – the SPY etf. This kind of capture ratio can only be described as middling at best.

When you compound these returns annually, the actual capture to the end investor is even lower than 44% because of the effects of compounding. The actual returns of $1000 invested in this return stream for 5 years would grow to $1,363 dollars. The returns of $1000 invested in the SPY would grow to $1,976. This is just a 37% capture while the S&P 500 nearly doubled over those five years.

Diligence Recommendations for Hedged Equity Investors

Once the investor is armed with the Capture Ratio, the investor can reach out to the Hedged Equity manager armed with the data to question the manager on any divergence from expectations. A Capture Ratio of 70% is considered very good. But it is not by any means the best in this space – we'll get to that later.

At 70%, the investor is likely achieving a comfortable majority of the upside of the index while still presumably maintaining a floor in the portfolio associated with the hedge. If your capture ratio is not as expected, then use this recommended Q&A to discuss the reason for the divergence with your Hedged Equity Manager:

Recommended Hedged Equity Due Diligence Questions

1. Is the cause for the divergence in Capture Ratio due to any active management deployed in the Equity exposure?
    a. If so, ask the manager to explain in detail to understand the risk of the underlying equity portfolio

2. Does the manager deploy any tactical decisions that cause the strategy to reduce or increase risk exposures?

3. Does the fund take profits in its hedges in market declines?
    a. If not, have them explain why they are ignoring a significant opportunity to create gains and re-invest those gains in a lower priced market.

4. Does the manager deploy any tactics to attempt to produce income to help defray the cost of the hedge – such as short options positions?
    a. Hedges are like insurance for your portfolio so like most insurance, you just pay the premiums and never file a claim
    b. Have the manager explain whether the sum collective steps taken to produce income have added value or reduced value in the strategy.
    c. If so, do these options change the underlying risk profile of the hedged equity strategy?
    d. Does it reduce the effectiveness of the hedge in a material market sell off? Does it give away any upside? Is the strategy best described as a buffered strategy because of the additional options?
    e. Have the manager detail whether the tactics used to produce income are repeatable and predictable for the manager.

5. Does the strategy deploy any leverage – either actual or notional leverage?
    a. Some Hedged Equity strategies use options to create levered exposure in the portfolio.
    b. Ask the manager to explain the leverage and whether it has created any unexpected consequences.
    c. If the leverage involves fixed income and equity in the same portfolio, can the fixed income be expected to continue to produce appreciation in a likely rising rate environment?

These questions will help the investor get to the bottom of an unexpected Capture Ratio. The Hedged Equity space offers quite a compelling promise – but the execution matters. These questions will help the investor uncover the execution answers for the Hedged Equity strategy for which they are performing a diligence.

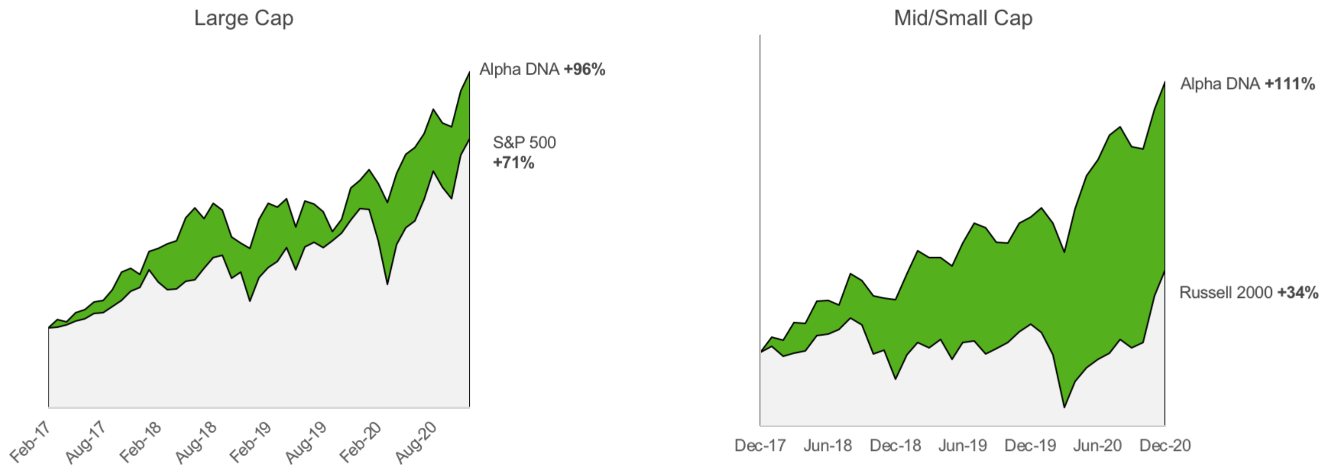
Introducing Alpha DNA

Alpha DNA is a Hedged Equity manager that launched its first Hedged Equity strategy as an SMA in Spring of 2017 that invests in large cap stocks only. It launched its second Hedged Equity SMA in January 2018 which is mid and small cap stocks. Those two strategies were combined to create an ETF that was launched in February 2021: ticker symbol SENT – the AdvisorShares Alpha DNA Equity Sentiment ETF.

Alpha DNA has achieved a capture ratio since inception that is higher than 100%. In other words, even after the cost of the hedge, the strategy has achieved returns that exceed the returns of the underlying index that is used to hedge the equity portfolio.

See Chart 5 to see the capture ratio of the two Hedged Equity SMAs for Alpha DNA:

Chart 5: Returns thru Dec 2020 compared to Index



Alpha DNA is a separate accounts manager and all returns expressed herein are solely from the separate accounts business within Alpha DNA. The Large Cap chart reflects the NET Returns of the Alpha DNA Large Cap Hedged Equity SMA Composite. The Mid/Small Cap chart reflects the returns of the Alpha DNA Mid/Small Cap Hedged Equity SMA Composite.
Alpha DNA claims compliance with the Global Investment Performance Standards (GIPS). To receive a full list of composite descriptions of Alpha DNA and/ or a presentation that complies with the GIPS* standards, contact Wayne Ferbert at (443)-288-6444 or wayne.ferbert@alphadnaim.com. Returns are presented net of fees and include the reinvestment of all income. This composite includes some account(s) owned by the firm's principal that were not charged a fee. Please request information about which months are impacted by accounts that did not pay a fee. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.*
All investments involve the risk of potential investment losses as well as the potential for investment gains. Prior performance is no guarantee of future results and there can be no assurance, and clients should not assume, that future performance of any of the model portfolios will be comparable to past performance.
These results should not be viewed as indicative of the advisor's skill. The prior performance figures indicated herein represent portfolio performance for only a short time period, and may not be indicative of the returns or volatility each portfolio will generate over a long time period. The performance presented should also be viewed in the context of the broad market and general economic conditions prevailing during the periods covered by the performance information. The actual results for the comparable periods would also have varied from the presented results based upon the timing of contributions and withdrawals from individual client accounts. The performance figures contained herein should be viewed in the context of the various risk/ return profiles and asset allocation methodologies utilized by the asset allocation strategists in developing their model portfolios, and should be accompanied or preceded by the model.

Our capture ratio is much higher than the average strategy in this space. In fact, it is over 100% so it is certainly an outlier in this space. As an investor, any divergence in Capture Ratio (either high or low) requires solid understanding of the approach deployed by the manager.

To that end, we will take the time to answer all of the Diligence Questions presented on the prior page so you have the understanding of the out-performance in Capture Ratio:

1. Yes - our equity portfolio is actively managed. It aims to deliver excess returns and those excess returns explain a significant amount of the higher than average capture ratio. The portfolio includes individual equities that are diversified, roughly equal weight by stock, and re-balanced regularly. The portfolios deploy an advanced, systematic, repeatable process to equity selection in which machine learning and alternative data sources play a role. Reach out to us to learn more.
2. There are no tactical decisions to increase or decrease equity exposure. The hedges are rolled regularly using a schedule that ensures that the hedge is always set at an effective level to provide downside protection.
3. Yes – Alpha DNA takes profits in its hedges when markets sell off materially and the profit from the hedges are re-deployed in to the equity positions. The hedge is then reset at a new lower level in the market.
4. None
5. No leverage – neither actual nor notional

This represents a straight-forward discussion of the answers Alpha DNA offers to these key questions that every advisor should ask of every Hedged Equity manager.

BONUS SECTION: Downside Scenario Analysis as another key diligence tool

Hedged Equity strategies offer the promise of Growth and Downside Protection. In the preceding paper, we have discussed the Growth aspect in great detail – as in, how much of the market growth is captured by the Hedged Equity strategy. But to deliver on the promise in full, the strategy must also deliver on Downside Protection.

So, we wouldn't be getting the reader to a full discussion of the relevant factors if we didn't address how one should measure the Downside Protection in a portfolio also.

We recommend a useful tool that is quite easy to implement and we call it: Downside Scenario Analysis.

Simply put, it is an examination of how the strategy performed during significant market declines. After all, if your Hedged Equity strategy is not offering a material offset to a meaningful market decline, then are you even Hedged?

The simplest way to do this is examine time periods where you were advising clients and you know clients panicked. Take a look at the monthly returns of the Hedged Equity strategy during those months of a steep market decline and compare them to the index returns the strategy tracks. If the Hedged Equity strategy is off-setting a material amount of the index loss, then you know the hedge worked. If it did not offset a material amount of the loss, are you even Hedged?

In recent time periods, we recommend you examine Q1 2020 and Q4 2018 as two recent material market declines. Look closely at how your Hedged Equity manager did in those time periods.

If the manager did not offset material amounts of the hedge, then look closer at the questions on the prior pages for diligence of the manager – as the answers to these questions will likely explain why the manager under-performed your expectations.

Many advisors like to ask what the max drawdown for the strategy was for specific market declines or sell-offs. You can then compare it to the market decline over the same period. This is just another form of the Downside Scenario analysis. In fact, if you compare these two data points, you have a version of a Capture Ratio that is often called the Downside Capture Ratio.

This is another effective tool in your advisor tool kit for performing a diligence on your potential Hedged Equity managers.