

+44 20 7965 6060 info@j8capital.com www.j8capital.com

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Mitigating 'attachment bias'

Investors generally feel the pain from losses twice as much as pleasure from gains, judgment on investment is skewed by an initial piece of information or experience, and investors assign excessive value to what they already own in their portfolios. These were the main findings by Nobel Prize winner Richard Thaler¹ who used psychology to explore the cognitive biases of investors: endowment effect, loss aversion, and status quo bias. At J8, we coin these traits the 'attachment bias'. Investors chasing performance and holding on to loss making positions while selling profitable trades prematurely are the hall marks of such attachment bias.

We devised and investment approach to overcome this attachment bias. Our approach is by investing systematically in broadly diversified global markets and leaving emotions out of the equation. Systematic, rule-based investing may appear at times counter intuitive but essentially allows us to profit from arbitraging human behavior and thereby gaining an edge over the market. In combination with modern portfolio theory², we intend to generate long-term capital growth, thus allowing for inter-generational wealth preservation and wealth creation.

¹ Richard Thaler, Nobel Prize in Economic Sciences 2017. "How do human traits govern individual economic decisions and what effect do they have on markets as a whole? Since the 1980s, Richard Thaler has analyzed economic decision-making with the aid of insights from psychology. He has paid special attention to three psychological factors: the tendency to not behave completely rationally, notions of fairness and reasonableness, and lack of self-control. His findings have had a profound influence on many areas of economic research and policy." Source: https://www.nobelprize.org/prizes/economic-sciences/2017/thaler/facts/

² Modern portfolio theory (MTP) was first introduced by 1990 Nobel Prize winner Harry Markowitz in 1952. "The basic concepts of portfolio theory came to me one afternoon in the library while reading John Burr Williams's Theory of Investment Value. Williams proposed that the value of a stock should equal the present value of its future dividends. Since future dividends are uncertain, I interpreted Williams's proposal to be to value a stock by its expected future dividends. But if the investor were only interested in expected values of securities, he or she would only be interested in the expected value of the portfolio; and to maximize the expected value of a portfolio one need invest only in a single security. This, I knew, was not the way investors did or should act. Investors diversify because they are concerned with risk as well as return. Variance came to mind as a measure of risk. The fact that portfolio variance depended on security covariances added to the plausibility of the approach. Since there were two criteria, risk and return, it was natural to assume that investors selected of Pareto optimal risk-return https://www.nobelprize.org/prizes/economic-sciences/1990/markowitz/biographical/

The behavioral dilemma

We believe that deep-seated behavioral biases are not only prevalent but predictable, especially as they pertain to financial markets. Markets would be highly efficient if investors were rational when it comes to maximizing their wealth and well-being. However, most investors often behave irrationally, which leads to anomalies or deviations from what rational behavior would suggest. Certain anomalies are easy to identify and explain but hard for the conventional investor to predict with regularity.

Sophisticated institutional investors are tasked with deciphering and dissecting an endless stream of financial data. Unfortunately, individuals are not adept at quickly discerning the optimal action given a complex set of facts, and, consequently in these situations, they fall prey to more innate instincts like fear and greed: *the attachment bias*. Such attributes of behavioral finance present opportunities for a structured, systematic, and methodical strategy such as J8 GARS to profit from.

Our approach

Our investment philosophy comes from a core understanding of behavioral finance with implementation based on efficiency, process, and statistical modeling.

Disciplined systematic rules based on rigorous statistical analysis and economic rationale provide us a formulaic framework to exploit irrational human behavior. It is a given that individual strategies have market environments where they perform better or less good. Therefore, a multi-strategy portfolio is our answer to reduce cyclicality and thus provide more consistent returns streams over time.

The challenge

We also believe that the constant validation and tempered evolution of an investment strategy is key to long-term success. Such processes require continuous research, focus, and deliberation: the more we know, the more the data points we analyze, the more opportunities we can identify for success. Validation also requires the ability to ask the hard questions, both of current and future strategies: will the strategies hold in the future? Market environments shift and change so it is important to develop adaptable, intelligent solutions, but also to allow for exclusion when they temporarily fail. Our unrelenting pursuit of efficiency and rigorous analysis is a differentiating factor and a challenge we take on with confidence.

Simplicity is key

A common thread among the best investment programs is a core understanding of why the strategy should work. In other words, a cause and effect. Not only why the strategy has worked on the past but why it should work in the future: what factors may influence results both positively and negatively? It sounds simple but it is not as common as one might believe it to be. Simplicity, therefore, is not an easily accessed process!

Addressing too many parameters result in too many degrees of freedom and lead to overcomplexity and overfitting. The process of 'overfitting' is typically the nemesis of most trading models and a cause

of models "breaking". Models do not break per se, but there are developers who do not do a good job at the outset in creating the model, utilizing optimized singularity parameters. As a result, the historical numbers look great but there is a low probability they will be repeatable.

There is a solution

At J8, we spend considerable time and effort when developing our strategy to avoid such behavior. We choose parameters and explanatory models such that we deliberately avoid behavioral attachment bias. By combining distinct and independent signal engines, we built an overall unbiased model that is yet adaptable to change. Importantly, we want the model to work with a wide range of change within each parameter and thereby avoid overfitting. For this purpose, we test a wide range for each parameter for each variable in each model and do so in different historic market environments. The final strategy model then results in generating buy or sell signals which we implemented in the markets with confidence. We invest using exchange-traded futures on the largest, deepest, and most liquid markets. All our research and development are done internally and involves a rigorous trail of testing and auditing.

Benefits of J8 GARS

The J8 Global Absolute Return Strategy (J8 GARS) can benefit from both bull and bear markets and from market inefficiencies. The strategy involves being long, short, market neutral, or in cash in the major liquid futures markets with each distinct strategy driving the overall allocation. Depending on the specific strategy, the holding period ranges from a few days or weeks to many months. Our goal is to capture alpha by performing in line during bull markets and substantially better in bear markets while avoiding being caught in whip-saw markets. Our correlation with the traditional markets and other strategies is negative or low. As such, we provide a significant diversifier to investment portfolios. Our return history shows persistence.

How it works

The strategy utilizes established fundamental and behavioral theses that can be accessed and exploited quantitatively. We conduct ongoing proprietary research which builds on our experience and results in the development of improved or innovated models housed in strategies to monetize our theses. While our overall portfolio objective will not change, we have the ability to incrementally enhance our underlying models over time in a constant and ongoing research process. Such evolution takes time and is a slow deliberate process.

A recent example of an enhancement was the introduction of further downside protection by adding a rule on the portfolio level to half the existing market exposure during a quarter if a certain drawdown threshold is exceeded. This attribute of our enhanced program helps to protect an investor's quarterly returns and potential drawdown risk. Furthermore, the said strategy feature, also resulted, through our testing, in reduced recovery periods. Hence, we create more efficiency in the process as our drawdown to recovery period is lessened.

Outlook

It is critical for the ubiquitous investment industry professional to continue to innovate and create new and unique solutions for investors. Typically, and is often the case, we become too comfortable with existing themes and do away with diversification and protection. The current bull market has focused investors on long-only equity strategies. While this may have been the best solution in the past, what is the best solution going forward?

Often, the investment process, especially at the asset allocation level, relies too much on historical data and recency bias. Investors believe what has happened recently will be repeated going forward. They fall prey to the 'attachment bias'. No one has a crystal ball, but investors need to spend more time trying to identify investment opportunities and expectations that hold when *going forward*. The old adage of buy low, sell high needs to be at the forefront of investors' minds and price momentum at its core. The current bull market appears to be priced to perfection and has certainly been driven by substantial liquidity. How will investors protect themselves if, for example, the Fed starts to tighten monetary policy, or some other event occurs that leads to a significant correction or prolonged bear market? What are they willing to pay for the protection? Typically, individual investors are notoriously bad market timers. A process driven, professional investment structure is a prudent diversification tool.

Investment case

The key is understanding where the strategy fits within the asset allocation. A systematic investment strategy such as J8 GARS may serve as an "insurance policy" for the portfolio, only that this insurance policy also "pays" a premium.

For example, looking at historical data illustrates the power of pairing J8 GARS with a long-only 60/40 equity/bond portfolio. Theoretically, if an investor allocated 80% of their portfolio to the S&P 500 Index and investment grade bonds (Bloomberg Barclay US Aggregate Bond Index) and 20% to our strategy, they would have seen the Sharpe Ratio increased by around 60%, a low correlation between the S&P 500 and bonds and our strategy of -0.01 and 0.08 respectively, and a reduction of the maximum drawdown by well over 25%. Reducing risk is the hallmark of well-diversified investment portfolios.

The Figure 1 below juxtaposes the drawdowns of a classical 60/40 portfolio with a 60/40 portfolio that contains 20% of J8 GARS. The drawdowns with J8 GARS included are less and the recoveries are shorter.

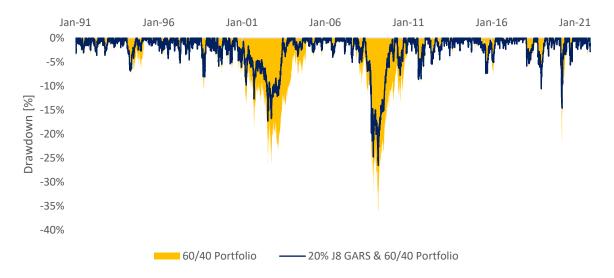


Figure 1: Drawdown of a long only portfolio containing 60% exposure to the S&P 500 Index and 40% exposure to Bloomberg Barclays Aggregate Index, and same portfolio in which 20% is replaced by J8 GARS.

Figure 2 illustrates the improvement of the efficient frontier of a 60/40 portfolio when the allocation to J8 GARS is incrementally increased.

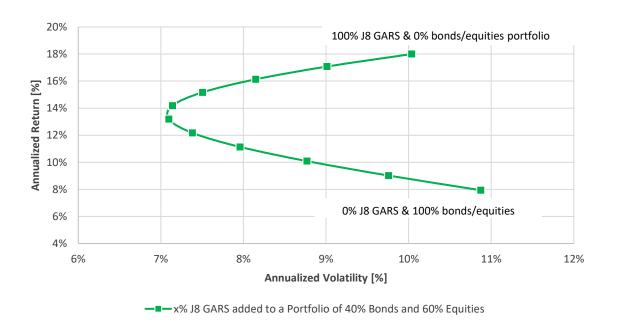


Figure 2: Calculation of the Efficient Frontier adding J8 GARS to a traditional 60/40 equity/bond portfolio whereby bonds are represented by the Bloomberg Barclays Aggregate Bond Index and equities by the S&P 500 Index.

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J8 Capital Management LLP

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