



K2 Perspective

Alpha: The ‘God of the Gaps’

Note: The author for this month’s K2 Perspective is Tilak Lal, Chief Risk Officer, K2 Advisors.

Humans have a long history of assigning supernatural or metaphysical explanations to things and events we do not understand. Theologians in the early 19th century coined the phrase ‘God of the gaps’ to describe this tendency. Long before the advent of plate tectonics and microbiology, for example, physical phenomena such as earthquakes and plagues were readily chalked up to divine intervention — the gods were simply angry again. A 2008 article in *The Economist* magazine conceptualized investment alpha in the same way. While the article did not suggest alpha is the result of any sort of metaphysical or deified intervention (despite perhaps the deluded self-image of certain portfolio managers), what it did imply is that what is often defined as alpha may in fact merely be beta residing in the so-called ‘gaps’.

In other words, until it is clearly defined and measured, the true nature of alpha remains somewhat mysterious and elusive, and often it may be misrepresented.

There was a time decades ago when active investment managers attributed all of their positive performance to skill, or alpha. Then the academics came along and suggested that much of this return could readily be captured by owning the whole market...in other words it was merely beta in an alpha disguise.

So what is alpha?

Because of its subjective, relative, and sometimes ambiguous nature, alpha is somewhat difficult to quantify. From a purely qualitative standpoint investors understand it as the value that an active portfolio manager adds to or subtracts from a fund’s return, depending upon his or her skill as an investment manager. Fair enough, but what does it really mean?

Mathematically speaking (and I am sorry for this), alpha represents the abnormal rate of return on a security or portfolio in excess of what would be predicted by an equilibrium model like the capital asset pricing model (CAPM). So it is the coefficient — or residual of the expected return of a fund or security — based on that fund or security’s market sensitivity, or beta. In an efficient market the expected value of the alpha coefficient would be zero, however we find markets to be decidedly inefficient (naturally). As such, if a fund or security returns more than what would be expected given its beta (market sensitivity), it has positive alpha. If it returns less than its beta predicts, it has negative alpha.

Quite simply, alpha is the portion of a portfolio’s return that is the result of factors other than the portfolio’s exposure to the market.

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Long Short Equity

In April, global equity markets generally rose with the support of better economic data, especially from the United States, although rising geopolitical risks due to the Ukrainian crisis did create some headwinds. Developed-market equities generally outperformed emerging-markets; however, for a second consecutive month, stocks were characterized by increased volatility as well as significant dispersion amidst sector returns. Technology and biotechnology continued to face selling pressure, despite several favorable earnings announcements, and small-capitalization names tended to underperform large-cap stocks. Pulling back significantly from its all-time high reached in March, the Russell 2000 TR Index declined -3.9% on the month. Notably, corporate news flow as well as economic data released during April was largely positive. Approximately 70% of S&P 500 companies announced above-expectation quarterly earnings as of month end. Even within the technology and healthcare sectors, managers noted that they were not seeing any wide-scale deterioration in company fundamentals. Against this backdrop K2’s long short managers were in aggregate negative for the month. In general, the managers who were challenged in March again suffered in April as the rotation into defensive lower multiple stocks continued. Technology focused funds in particular were especially hard hit. Long exposure to momentum-driven companies, including a number of highly-valued internet names, detracted significantly from performance. Exposure to healthcare focused managers detracted as well, as the sell-off in biotechnology companies continued. On average managers’ net and gross exposures declined over the month as portfolio risk was reduced. Going forward managers maintain high conviction in their portfolios, and many have used the sell-off to selectively buy companies on the dip, and as an opportunity to rotate their short exposure out of index hedges and into single name positions. Shorts, which had been challenged in 2013, are finally reacting to weaker earnings and growth outlooks.

Discerning the alpha signal from the noise

To help conceptualize alpha allegorically, imagine if you will the market as a radio station. Listeners to the radio station are market investors, the songs played represent broad market performance, and the volume at which songs are played represent investor beta — or sensitivity — to the market songs. Some songs are good (positive performance) and investors appreciate a high beta, and some songs are decidedly bad (negative performance) and investors prefer a low beta. All listeners to the radio station can readily hear and appreciate the market songs without much effort. They are easily received, clearly delivered, and carried on a strong signal. When the songs are good the listeners have the option of turning up the volume on their radios (increasing beta) to appreciate the strength of the music signal even more. Of course this decision bears risk, as the radio station will regularly change the music — often without warning — to songs that are quite offensive to the ears (think Backstreet Boys). At these times, despite the desire to listen to music at very high volumes (our investors are teenagers) they are compelled to turn down their radios and minimize the strength of the signal. They simply cannot stand the noise. Now imagine that in addition to the clear songs the market broadcasts on the strong signal, there are other less obvious, less clear and more difficult to discern notes and melodies delivered on weaker frequencies alongside the primary market songs. To less discerning listeners these peripheral signals are typically interpreted as simply noise, but to a diligent and specially trained ear — one with high-end audio equipment that is perhaps especially sensitive to tangential and weaker signals, this noise may in fact form a song of its own. This is the market's alpha song, the peripheral 'noise' that accompanies the strong market signal. This signal is difficult to hear, but when it is discovered listeners have the option of listening to music they enjoy, despite the fact that the broad market song playing may be a bad one. In this way the noise is transformed into beautiful music, or alpha, and investors may capture positive returns with limited risk.

Given this understanding, it follows that in order to be able to identify alpha, one must first be able to identify and measure both the market where the alpha is expected to reside, and the beta (or sensitivity) the investor has to that market.

This is the challenge, particularly for hedge fund investment strategies. Without knowing the fund's market exposures, we cannot begin to derive its alpha (if any). So to begin to understand alpha it is critical to understand market beta first.

Market beta

Beta is simply a measure of a portfolio's return sensitivity to the return of the market in which it is benchmarked. Put differently, it is a measure of a portfolio's systematic (market) risk exposure. In this way, a portfolio with a beta of 1 to the S&P 500 Index, for example, indicates that it has maintained perfect price correlation with S&P 500 market moves, such that it has gotten S&P market-level returns for S&P market-level risk. This latter point is important in terms of conceptualizing beta, and one that is often overlooked.

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Specialist Credit

K2's specialist credit managers were on average positive in April. Performance drivers included legacy liquidations, investment grade and high yield corporate bonds, and loan portfolios. Detractors included some sovereign bond shorts, broad market index hedges, and in several cases CDS positions. A significantly large bankruptcy filing made news during the month, and as a result par-weighted high yield bond and loan default rates spiked to 2.15% and 4.22% in April, respectively, up from 0.61% and 1.98% in March. Including two other filings, April's \$39.5 billion of defaulted volume was the second largest on record (\$47.4 billion in January 2009). More broadly, high yield bonds and loans gained +0.7% and +0.2% in April, respectively, supported by low Treasury yields. High yield bond yields were down -45bps YTD through April, already exceeding the decline for 2013 of -43bps. However, the pace of the decline has slowed.

Event Driven

On average K2's event driven managers posted small losses in April. Positive performance drivers included convertible strategies, special situations credit, M&A related to tax inversion strategies, and bankruptcy filings. Detracting were special situations equity — as the unwind in momentum and growth stocks created headwinds — and portfolio-level hedges. The month's volatility did however allow managers the opportunity to build and/or add new positions. Looking forward, the market environment continues to present attractive opportunities for the strategy. A pickup in activist activity is expected as shareholder influence continues to increase. In response, management teams and boards are becoming more engaged with said shareholders, and often may seek to pre-empt activist involvement. Either scenario presents special situations and trading opportunities for event-driven managers, at a time when merger arbitrage spreads remain low. Special situations credit investments continue to be focused on liquidations in the US and Europe. However, managers are actively looking at the potential for European banks to begin their long-anticipated sale of assets due to tighter capital requirements.

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Risk is not a tangible quality, as is return, but it is certainly no less significant in our understanding of beta. If an investor wishes to share in the return promised by the market, he must be willing to share in the intangible risks. Quite intuitively, the more market return he wants, the more of the market beta risk he must be willing to assume.

Defining hedge fund alpha

Therefore, to identify and measure a given hedge fund's alpha it is necessary to be able to identify and measure its beta profile first. We must know beta to understand alpha, and in the case of hedge funds this can be a difficult task as they do not measure themselves against traditional market benchmarks such as the S&P. Hedge funds by definition do not seek relative performance, but instead pursue absolute — or what we prefer to describe as asymmetric — returns. Positive asymmetry is the result of positive alpha.

So to identify a hedge fund's beta profile we must have insight and transparency into the manager's trading strategy and the securities in which they invest, so that we may be able to understand and measure their systematic risk exposures.

In this way a passive alternative benchmark can be established, often one that is customized based on a given fund's strategy specialization. A composite of a biotech and healthcare ETF, for example, could be built to serve as a baseline for a manager's systematic exposures. We need to comprehend a fund's knitting to observe its alpha. What is the manager's specialization, and in what security types does he/she search for opportunities.

Indeed, some funds seek to neutralize any and all market exposure, such that any return is alpha. In these instances negating all broad market exposure is the specialization, and so we must quantify and monitor their holdings to ensure that 'market creep' is not finding its way into performance.

In summary, we believe that hedge funds do deliver alpha, and that this alpha can be measured using the appropriate methodology. That said, it is important to recognize that measuring and monitoring hedge fund alpha is a variable exercise contingent upon each individual manager's investment program, and the securities in which they invest. To accomplish this one needs full transparency, because you cannot measure what you cannot see...and alpha is no exception.

(Strategy Focus continued)

Global Macro

Markets were again choppy in April given increased tensions between Ukraine and Russia, in addition to concerns over equity market valuations. Against this backdrop K2's global macro managers were on average slightly positive for the month, with the great majority of systematic managers capturing gains, while the majority of discretionary managers posted losses. In terms of performance drivers long exposure to fixed income tended to be profitable, as were longs in the GBP. Select commodity holdings, most notably in nickel and natural gas, were also profitable. Detractors included exposure to crude oil and shorts in US Treasuries.

Commodities

On average K2's commodity managers gained in April, with profits in base and precious metals and natural gas strategies outweighing losses in oil and, to a lesser extent, agriculture. Strong performance in Nickel through bullish structuring was a significant driver of base metals returns for several underlying funds, while a weakening WTI market during the latter part of the month offset a handful of managers' positive performance.

Index Definitions

T-bills: A short-term debt obligation backed by the U.S. government with a maturity of less than one year. T-bills are sold in denominations of \$1,000 up to a maximum purchase of \$5 million and commonly have maturities of one month (four weeks), three months (13 weeks) or six months (26 weeks).

S&P 500 Index: Standard and Poor's 500 Index is a capitalization-weighted index of 500 stocks. The index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

Swiss Re Cat Bond Index: The Swiss Re Cat Bond Total Return Index tracks the total rate of return for all outstanding USD denominated cat bonds. The index is based on Swiss Re pricing indications only.

ML High Yield BB Index: The ML benchmark index for BB-rated high yield corporate bonds.

The BofA Merrill Lynch US Floating-Rate Asset-Backed Index: is a statistical composite tracking the overall performance of the US floating-rate asset-backed securities (ABS) market over time. The index includes US dollar-denominated ABS having a floating coupon, a minimum amount outstanding of \$25 million and an investment grade credit rating of BBB or higher.

BarCap U.S. Inflation Linked Bonds over 5 Year TR: A part of the Barclays Capital family of global inflation-linked bond indices, the Barclays Capital US Government Inflation-linked bond index (US TIPS) measures the performance of the TIPS market. TIPS form the largest component of the Barclays Capital Global Inflation-Linked Bond Index. Inflation-linked indices include only capital indexed bonds with a remaining maturity of one year or more.

US Treasury Bill 90-Day On-The-Run Yield: Measured in percentage yield, this is the interest yield payable per year on the most liquid U.S. 3 month Treasury Bill.

The Dollar ("DXY") Index: indicates the general international value of the USD. The USDIX does this by averaging the exchange rates between the USD and 6 major world currencies. The FINEX computes this by using the rates supplied by some 500 banks.

The EurekaHedge ILS Advisers Index: is an equally weighted index of hedge funds that explicitly allocate to insurance linked investments and have at least 70% of their portfolio invested in non-life risk.

HFRI Fund of Funds Composite Index: Funds of Funds invest with multiple managers through funds or managed accounts. The strategy designs a diversified portfolio of managers with the objective of significantly lowering the risk (volatility) of investing with an individual manager. The Fund of Funds manager has discretion in choosing which strategies to invest in for the portfolio. A manager may allocate funds to numerous managers within a single strategy, or with numerous managers in multiple strategies.

BarCap U.S. Agg TR Unhedged USD: The U.S. Aggregate Index covers the USD-denominated, investment-grade, fixed-rate, taxable bond market of SEC-registered securities. The index includes bonds from the Treasury, Government-Related, Corporate, MBS (agency fixed-rate and hybrid ARM passsthroughs), ABS, and CMBS sectors.

BarCap U.S. Long Treasury TR Index Unhedged USD: The Barclays US Treasury bond index is part of Barclays Capital global family of government bonds indices. The index measures the performance of the US Treasury bond market, one of the largest and most liquid government bond markets in the world. Using market capitalization weighting and a standard rule-based inclusion methodology; the index accurately reflects the performance and characteristics of the Treasury market and provides a basis for customized indices.



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