The most contrarian theme: long-term, fundamental investing

16 March 2017 Corrected

Equity and Quant Strategy
United States

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Whatever happened to "stocks for the long term"?

A seismic shift in assets and resources toward data-driven, fast-money strategies leaves a gaping opportunity for long-term, fundamental investment strategies, in our view. One of today's greatest market inefficiencies may stem from the scarcity of capital devoted toward long-term, fundamental investing. The risk/reward of holding stocks decreases with time horizons, and our work continues to support the fact that fundamentals grow more, rather than less effective as time horizons increase.

It became "quants for the short term"

The rise of short-term investment strategies, which tend to rely on access to better, faster and larger stores of data, has attracted trillions of dollars of capital. Managed futures funds alone now make up nearly 10% of the hedge fund universe. Jobs advertised for data scientists and quantitative analysts outnumber those for fundamental analysts by a factor of eight. And the number of fundamental analysts covering $1B of market cap has shrunk from fourteen in 1986 to less than one analyst today.

Models are getting complicated

Quantitative investing used to mean running multifactor models, but times are changing. Quants are now increasingly focused on real-time data feeds, AI, big data and machine learning. Our quantitatively oriented clients have 3x the number of factors today than they did twenty years ago. New alpha signals tend to be exploited and then quickly arbitraged away. With quantitatively-driven capital working to wring out all of the excess alpha from markets, equity holding periods have shrunk and short-term volatility has been suppressed.

But fundamentals win over the long haul

Fundamental equity investing is not dead, in fact far from it, in our view. Given how under-resourced the fundamental investment arena is today, opportunities are likely more abundant. And our analysis shows that fundamental signals significantly improve in efficacy over longer time horizons, whereas good quantitative signals perform well in the short term, but the decay rate is extreme. Valuations explain almost 90% of the S&P 500's returns variability over a ten-year time horizon – we have yet to find any signal with even close to that level of predictive power over the short-term. And ironically, what should be an increasingly efficient market has shown signs of becoming less efficient over the long term - alpha opportunities, measured by the range of market prices, have shrunk on a short-term basis, but have demonstrably risen on a long-term basis.

If you can't beat 'em, marry 'em

While quants and fundamental investors have had good and bad years, there is strong evidence that marrying the two techniques might be the optimal approach. Our Alpha Surprise Model, a quantitative overlay applied to our fundamental analysts' forecasts, has outperformed the S&P 500 by an average of 3.6ppt per year since 1987, and has beat the S&P 500 in 23 of the last 30 years.

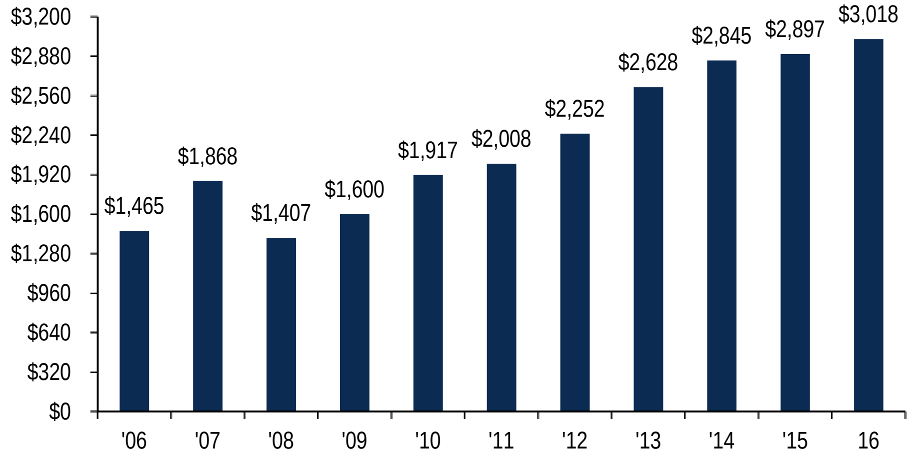
Refer to important disclosures on page 8 to 9. 11722669

Timestamp: 16 March 2017 09:05PM EDT

The most contrarian investment strategy

Stocks for the long-term is an all but forgotten concept today. The rise of short-term investment strategies, which tend to rely on access to better, faster and larger stores of data and information, has attracted trillions of dollars of capital, compressing equity holding periods and likely exacerbating spikes in short-term volatility.

Chart 1: Historical Hedge Fund Assets Under Management ($bn)

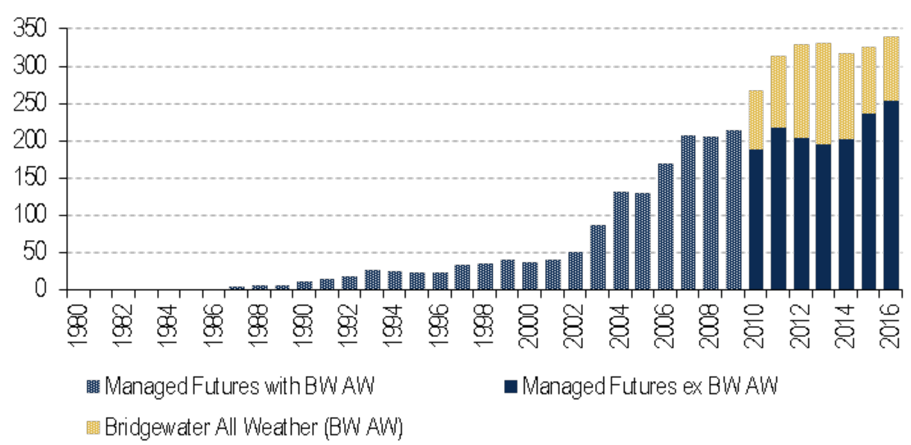


Source: Hedge Fund Research (HFR)

Managed futures funds (also known as CTAs), which tend to trade based on quantitative algorithms, have grown rapidly over the past several decades. According to BarclayHedge, their assets have grown to over 250bn, making up close to 10% of the total hedge fund universe.

Chart 2: CTA industry AuM has surpassed $250bn, increasing in each of the last three years

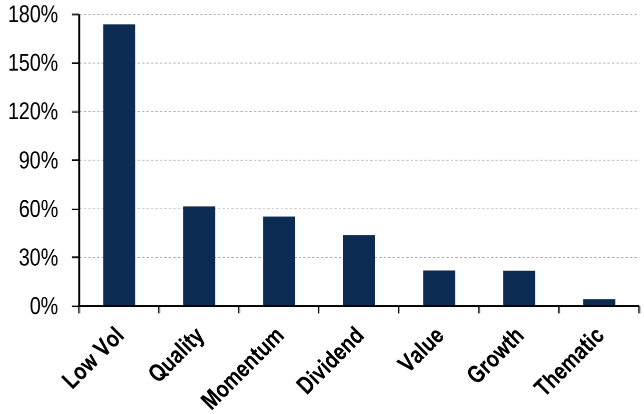
Data sourced from the BarclayHedge managed futures database, which includes the Bridgewater All Weather fund. Bridgewater All Weather uses x-asset risk parity and although grouped in this managed future database, is not specifically categorized as a CTA. Post 2010, the BarclayHedge data shown in this chart separates out Bridgewater All Weather assets.



Source: BofA Merrill Lynch Global Research, BarclayHedge. Annual data from 1980 to 2016

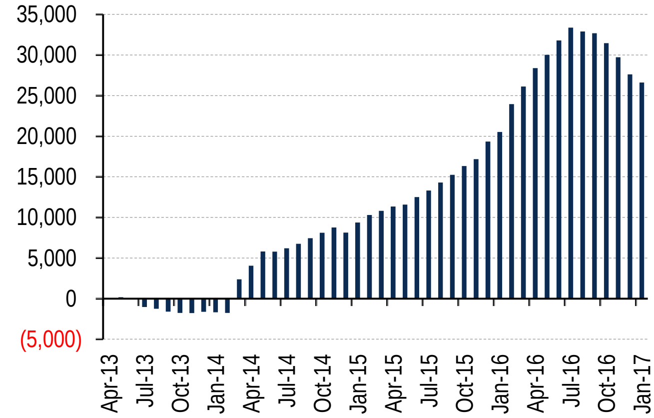
Similarly, low volatility computer-driven strategies have also seen significant growth in recent years.

Chart 3: Average annual AUM growth in smart beta ETFs, 2009-2015



Source: BofAML Global Research, Strategic Insight SimFund

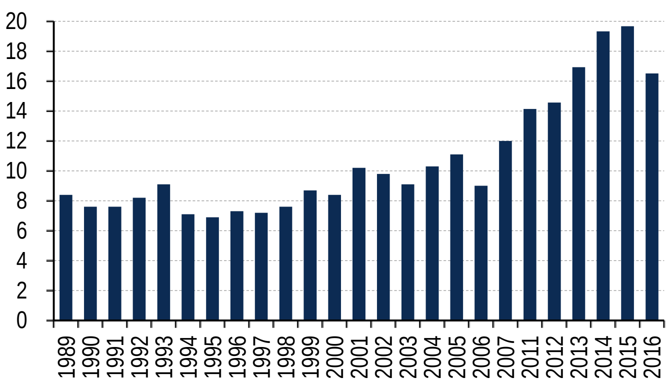
Chart 4: Cumulative flows into Low Vol funds & ETFs since 2013 ($mn)



Source: BofAML US Equity & Quant Strategy, Bloomberg, Strategic Insight SimFund

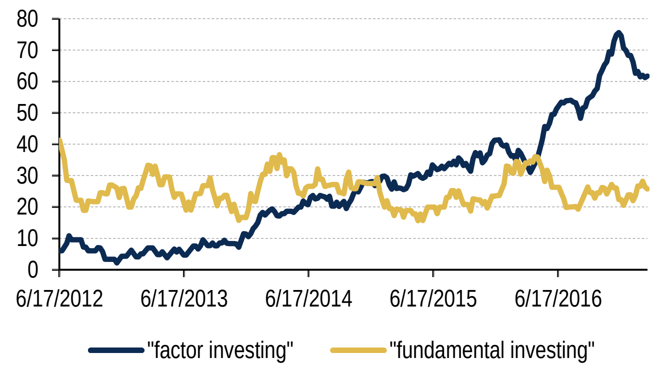
Our quantitatively oriented clients have 3x the number of factors today than they did twenty years ago (Chart 5). Quant/factor investing popularity has increased sharply, at the expense of interest in fundamental investing (Chart 6). One of today's greatest market inefficiencies may stem from the scarcity of capital devoted toward long-term, fundamental investing.

Chart 5: BofAML Institutional Factor Survey: average number of factors used by investors over time



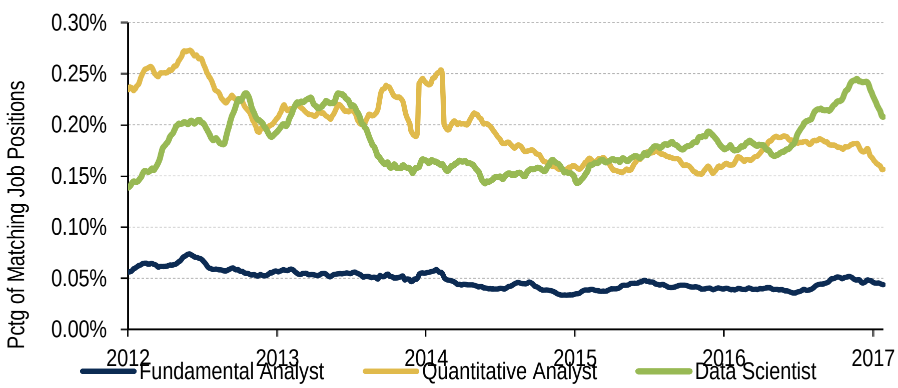
Note: 2008-2010 excluded (insufficient responses)
Source: BofA Merrill Lynch US equity & US Quant Strategy

Chart 6: Google trends: "factor investing" vs "fundamental investing" (15 week average)



Source: Google

Chart 7: Number of "data scientist" vs. "quantitative analyst" job postings on indeed.com



Source: www.indeed.com

Long-term market inefficiencies have increased

Given the abundance and improvement in data, analysis and tools, oddly enough, what should be an increasingly efficient market shows some signs of becoming less efficient. In tandem with asset growth in "fast money", the opportunity set, as measured by the range of market prices, has shrunk on a short-term basis, but has risen on a long term basis. The number of analysts covering stocks has structurally decreased – suggesting that the human element of fundamental analysis (assessing body language of management, physical channel checks, etc) have been supplanted by processes.

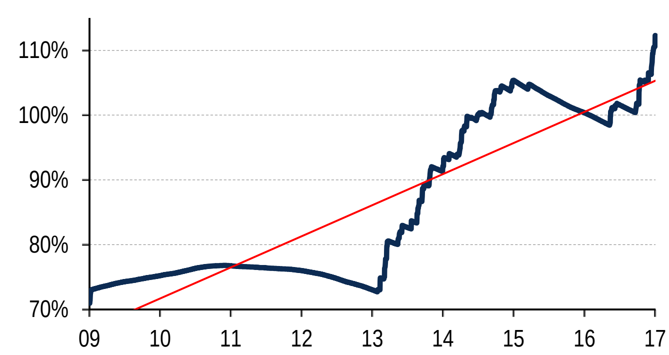
Chart 8: Range of short-term market opportunities has shrunk

S&P 500 1-year price range [(Max-Min)/Avg], March 2009 to March 2017

Source: BofA ML US Equity & Quantitative Strategy

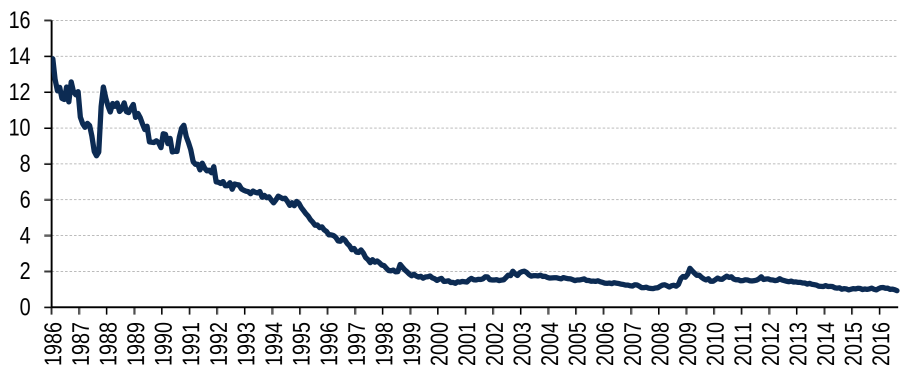
Chart 9: Range of long-term market opportunities has expanded

S&P 500 10-year price range [(Max-Min)/Avg], March 2009 to Oct 2016



Source: BofA ML US Equity & Quantitative Strategy

Chart 10: Number of analysts per $1bn market cap of S&P 500 (adjusted for inflation)



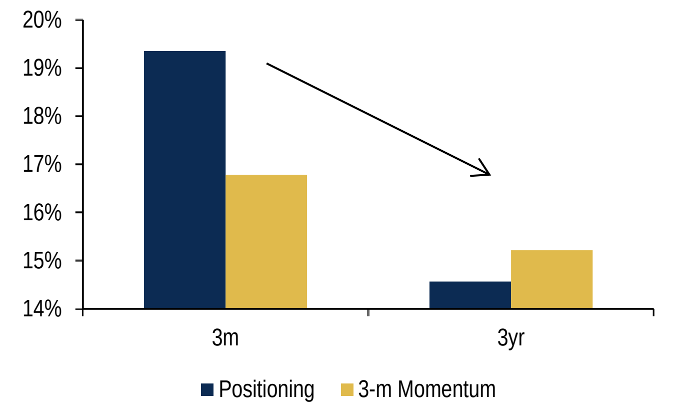
Source: FactSet, BofA Merrill Lynch US Equity & US Quant Strategy

Fundamentals win over long time horizons

The declining interest, assets and resources devoted to fundamental analysis suggests a significant opportunity in our view. Fundamental investing is not dead, far from it, but seems to require patience. Our analysis shows that fundamental signals see amplified performance as time periods are extended, but technical and positioning-based signals do reasonably well in the short term, but see marked alpha decay over the long term.

Chart 11: Positioning and Momentum work better in the short term

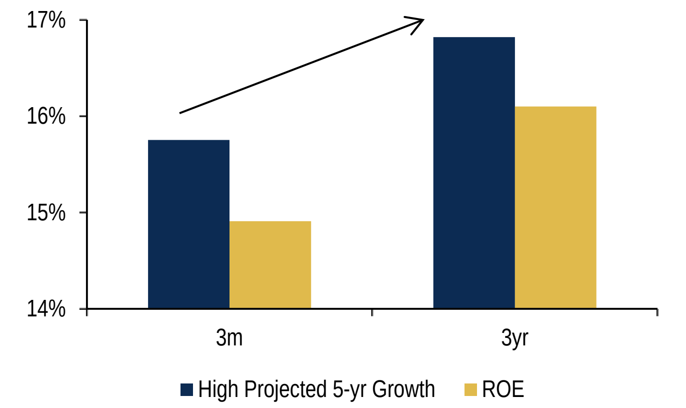
Annualized returns of neglected stocks (bottom 10 by large cap active managers' holdings) and top decile of S&P 500 by 3-month price momentum (2008-9/2016)



Source: BofA Merrill Lynch US Equity & US Quant Strategy

Chart 12: Fundamentals work better in the long-term

Annualized returns of S&P 500 top decile by High Projected Long-Term Growth and High ROE (2008-9/2016)



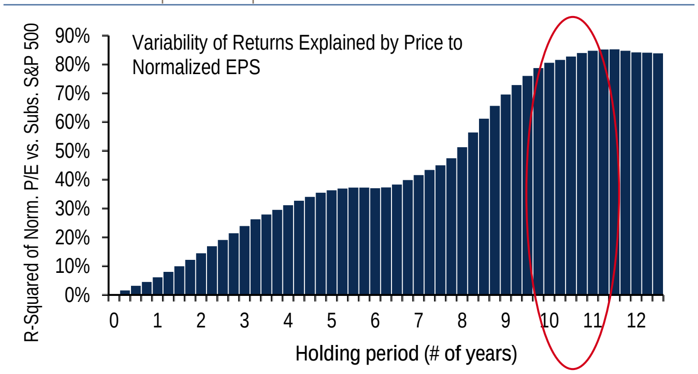
Source: BofA Merrill Lynch US Equity & US Quant Strategy

Over the long term, valuation is almost all that matters

Valuations have historically explained 60-90% of subsequent returns over a 10-year time horizon, with the price to normalized earnings ratio (our preferred valuation metric) explaining 80-90% of returns over the subsequent 10 years (Chart 13). Most other valuation measures have a reasonably strong level of efficacy over long time horizons (Table 1). We have yet to find any factor with such strong predictive power over the short term.

Chart 13: Valuation is all that matters in the long-term

Normalized P/E's predictive power on S&P 500 returns



Source S&P, BofA Merrill Lynch US Equity & US Quant Strategy

Table 1: Predictive power of various S&P 500 valuation metrics on total returns (as of 2/28/17)

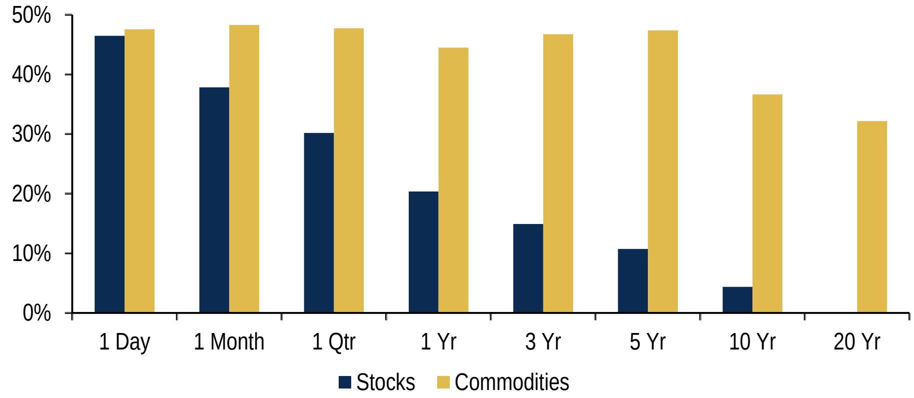
Metric	Current	Avg	% above (below) avg	10 yr RSQ	Implied 10yr Annlzd Return	90% Confidence Interval	Dates
Trailing PE	20.2	16.1	25%	67%	6%	1% - 11%	1960-present
Forward PE	17.7	15.2	16%	87%	7%	3% - 10%	1986-present
Normalized PE	19.6	19.0	3%	80%	7%	3% - 11%	1987-present
Shiller PE	28.7	16.7	71%	68%	5%	0% - 10%	1936-present
P/BV	3.1	2.5	27%	85%	8%	4% - 12%	1978-present
EV/EBITDA	11.9	10.0	19%	85%	5%	2% - 9%	1986-present
P/OCF	13.6	10.6	29%	90%	5%	2% - 8%	1986-present
P/FCF	24.9	28.4	-12%	38%	12%	4% - 19%	1986-present
EV/Sales	2.4	1.8	31%	86%	4%	0% - 7%	1986-present
Mkt Cap/GDP	1.1	0.58	85%	75%	0%	-5% - 4%	1952-present
				Median	6%	2% - 10%	
				Avg	6%	2% - 10%	

Source: FactSet, First Call, Compustat, Shiller, BofA Merrill Lynch US Equity & US Quant Strategy

Time really *is* money…

…At least for stocks. As investment time horizons lengthen, the probability of losing money in stocks generally decreases. While trading stocks over a one-day period can be considered to be only marginally better than a coin-flip, the probability of losing money plummets to 0% over a 20-year time horizon. Moreover, time horizon arbitrage is unique to equities: other asset classes (for example, commodities, as shown below) do not exhibit such characteristics (Chart 14).

Chart 14: Probability of Negative Returns Over Different Time Horizons (1971-present)



Source: BofA Merrill Lynch US Equity & Quant Strategy, S&P, CRB

Over the past 80 years, only two decades have produced negative total returns: the 1930s (only -1% despite the Great Depression) and the 2000s (-9%, the worst decade for investors which started with high valuations and the "tech bubble" bursting and ended just after the financial crisis). Other decades also had numerous crises: 1940s (WWII); 1950s (Korean War); 1960s (social unrest, Vietnam war, JFK assassination); 1970s (hyperinflation, oil embargo); 1980s (mortgage rates near 20%, LatAm debt crisis, crash of 1987, S&L crisis); 1990s (Asia/Mexico/Russia crises, LTCM) yet produced solid returns for those who remained invested.

Table 2: Total Returns by Decade (1930s -2000s)

Decade	Total Return	Avg Annual Return
1930s	-1%	-0.1%
1940s	149%	9.5%
1950s	486%	19.3%
1960s	112%	7.8%
1970s	77%	5.9%
1980s	404%	17.5%
1990s	431%	18.2%
2000s	-9%	-0.9%

Source: BofA Merrill Lynch Us Equity & US Quant Strategy

Panic selling and timing pullbacks risk missing out on the best days. Just missing 10 of the best days per decade can wipe out most of the potential gains.

Table 3 S&P 500 returns by decade excluding the best and worst days

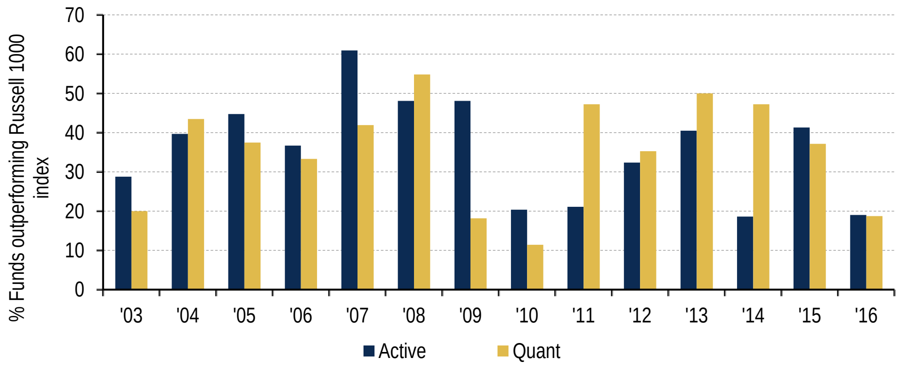
Decade	Price return	Excluding best 10d per decade	Excluding worst 10d per decade	Excluding best/worst 10d per decade
1930	-42%	-79%	39%	-50%
1940	35%	-14%	136%	51%
1950	257%	167%	425%	293%
1960	54%	14%	107%	54%
1970	17%	-20%	59%	8%
1980	227%	108%	572%	328%
1990	316%	186%	526%	330%
2000	-24%	-62%	57%	-21%
2010	95%	34%	200%	106%
Since 1930	10055%	31%	1124980%	14442%

Source: S&P, BofA Merrill Lynch US Equity & Quant Strategy

Don't forget about quantamentals

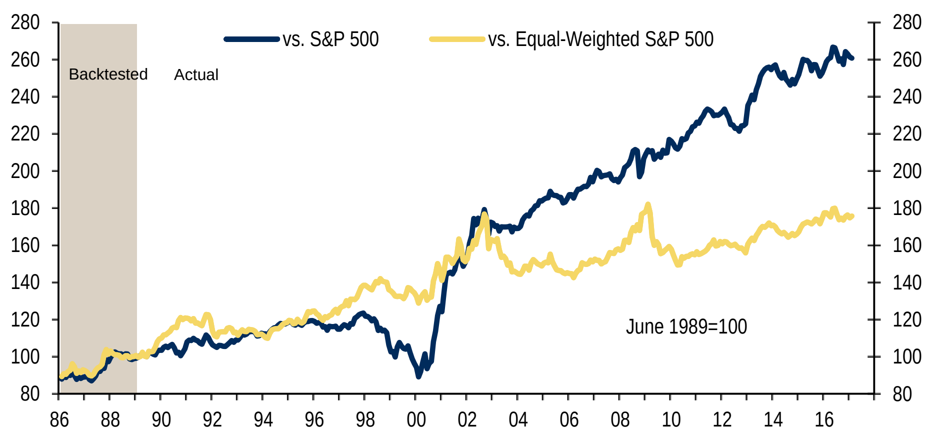
Quantitative managers and fundamental investors have had good and bad years, with about the same average hit rate over the last fourteen years (Chart 15). But a marriage of the two techniques might be the best approach: our Alpha Surprise Model, a quantitative overlay applied to our fundamental analysts' forecasts, has outperformed the S&P 500 by 3.8ppt since 1986, and has beat the S&P 500 in 23 of the last 30 years (Chart 16).

Chart 15: Annual Active and Quant fund hit rates



Source BofA Merrill Lynch US Equity & US Quant Strategy

Chart 16: Alpha Surprise Model (March 1986 to February 2017)



Source: BofA Merrill Lynch US Equity & Quant Strategy

The shaded area shows back tested results during the period from month end March 1986 to month end December 1988. The unshaded portion represents actual performance since January 1989. Back tested performance is hypothetical in nature and reflects application of the screen prior to its introduction. It is not actual performance and is not intended to be indicative of future performance. The back-tested performance results are based on criteria applied retroactively with the benefit of hindsight and knowledge of factors that may have positively affected its performance, and cannot account for all financial risks that may affect the performance of the screen going forward.

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Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

* Ratings dispersions may vary from time to time where BofA Merrill Lynch Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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