Mean Reversion in Factor-Based Investing

2017 Review and 2018 Outlook

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As the calendar turns from December to January, market watchers are in the midst of the time-honored tradition of reviewing the year that was and formulating a strategy for the year to come. This year, investors, strategists, and commentators are tasked with contextualizing what can only be described as a banner year across global equity markets. The 2017 equity investment landscape was defined by a record number of new highs, historically quiescent volatility, and the emergence of synchronized global economic growth for the first time in a decade. From the U.S. perspective, one could add the significant improvement in corporate earnings, a weakened dollar, and tax reform legislation to the issues under consideration. In short, a comprehensive understanding of the market's recent past and expectations for its near-term future involves a deluge of largely positive news. Yet, as the post-financial crisis bull market continues upward and onward, many are left wondering how long the good times will last.

One popular trade of late has been the move towards value-oriented strategies.[1] Amongst the mainstream investment factors, the targeting of companies with relatively low valuations has enticed investors who view current earnings multiples as excessive. In a similar vein, the dominance of growth and momentum-oriented strategies over the last year has left investors contemplating whether such outperformance can persist.[2] This juxtaposition of performance across factors is a theme that has long been of interest to Nasdaq. Conventional wisdom, backed by a plethora of academic research, suggests that a given factor cannot outperform in perpetuity. Moreover, efficient market theory – or even milder variants of the concept – postulates that timing a change in the fortunes of a given factor is unfeasible. Synthesizing those two points, it is reasonable to conclude that identifying the favored factor can only be done on an ex-post basis. In other words, the winning factor will only reveal itself after the excess return associated with said outperformance has already been realized.

In light of this conclusion, optimists might suggest piling on the winning factor in hopes of further outperformance; pessimists may eschew factor allocation altogether. For many investors, these options are often deemed insufficient. Nasdaq aims to offer an alternative in factor-based investing through the Nasdaq Factor Dog (NQDOG) Index.

The Nasdaq Factor Dog (NQDOG) Index seeks to select a portfolio of securities exhibiting certain characteristics reflective of an investment factor that has underperformed its peer group in the past calendar year. The Index tracks the underlying components and weights of one factor-specific index from the Nasdaq Factor Family of Indexes based on relative returns over a trailing twelve month period. The Nasdaq Factor Family of Indexes is comprised of the following six indexes:

• Nasdaq Factor Family US Momentum – NQFFUSM

• Nasdaq Factor Family US High Yield – NQFFUSHY

• Nasdaq Factor Family US Growth – NQFFUSG

• Nasdaq Factor Family US Value – NQFFUSV

• Nasdaq Factor Family US Low Volatility – NQFFUSLV

• Nasdaq Factor Family US Quality - NQFFUSQ

The six Nasdaq Factor Family Indexes are evaluated based on their trailing twelve month returns at the end of each calendar year. The returns used in the evaluation are reflective of a total return pricing method that reinvests cash dividends on the ex-date. The Nasdaq Factor Dog Index fully replicates the components and weights of the index with the lowest trailing twelve month return at the time of the evaluation. The Index continues to fully replicate the Selected Index until the next evaluation following the close of the last trading day of the next calendar year.

By selecting and weighting towards the factor that is currently most out of favor, the index seeks to capture the future upward mean reversion attributable to the "dog" factor. The annual factor evaluation and bi-annual reconstitution processes aims to provide consistent, timely exposure to the "dog" factor as the strategies move in and out of favor.

Before looking ahead to 2018, we will first review the index performance in 2017. In the final months of calendar year 2016, there was much enthusiasm for industrial and domestically-oriented companies at the expense of the technology-focused and globally-positioned segments of the U.S. equity market. The former were largely characterized by relatively depressed valuations while the high earnings multiples associated with the latter demonstrated the bullish expectations placed on future earnings growth.
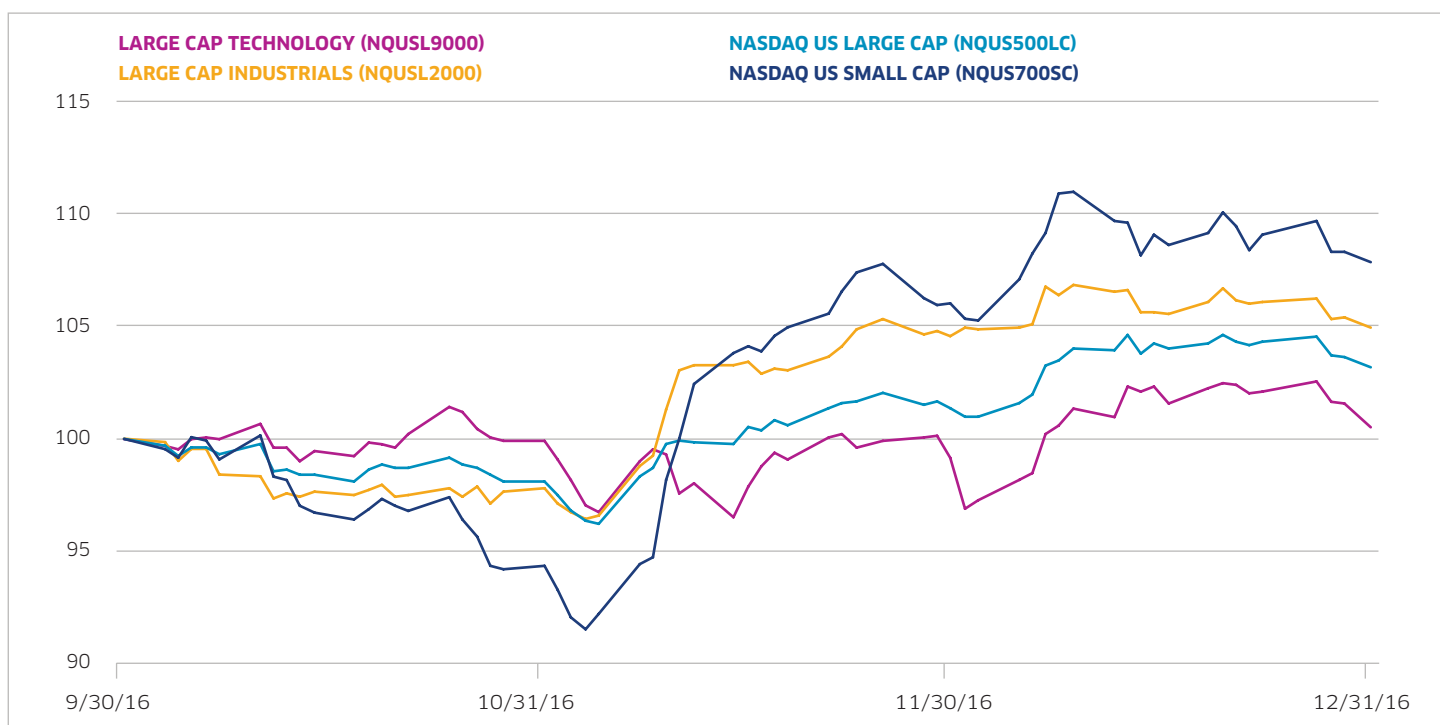
From the Nasdaq Factor Family perspective, this change in outlook manifested itself in the contrasting fortunes of the Nasdaq Factor Family US Value (NQFFUSV) Index and the Nasdaq Factor Family US Momentum (NQFFUSV) Index. The NQFFUSV Index substantially outpaced its peer group and the broader market in 2016, returning 25.16% on a total return basis. Conversely, the NQFFUSM Index significantly lagged behind its peer group in returning -0.49% during the same period. Per the index methodology, the NQDOG Index held Momentum as the "dog" factor in 2017 via a full replication of the NQFFUSM Index. The resulting divergence in index performance illustrates the efficacy of mean-reversion and the perils of long-term performance chasing in factor-based investing.
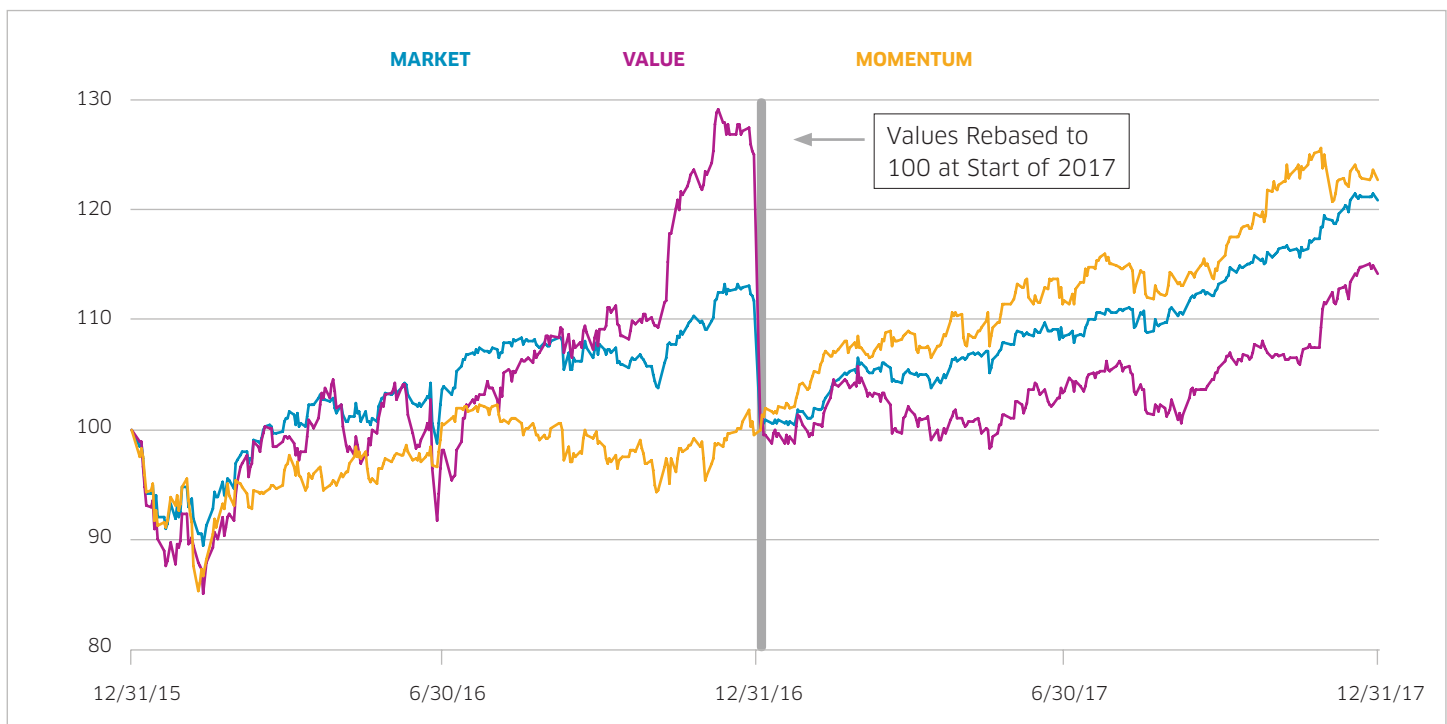
While the NQFFUSV Index returned a strong 15.84% in 2017, this was significantly below the broader market's return of 21.99%. From the worst performing factor in 2016 to a market-beating return of 22.84% in 2017, the NQFFSUM Index demonstrated how the disciplined targeting of the "dog" factor offers exposure to the persistent power of factor-level mean reversion.

Looking ahead to 2018, the NQDOG Index will select High Yield as the "dog" factor via a full replication of the Nasdaq Factor Family US High Yield (NQFFUSHY) Index. The NQFFUSHY Index seeks to select a portfolio of securities exhibiting high dividend yield characteristics. The Index selects 50 securities from the Nasdaq US 500 Large Cap Index based on factors such as dividend growth and dividend yield, and index components are weighted based on their trailing twelve month dividend yield.

TICKER	FACTOR	2015		2016		2017	
		RETURN	RANK	RETURN	RANK	RETURN	RANK
NQFFUSGT	Growth	9.34%	1	0.29%	5	25.00%	1
NQFFUSQT	Quality	5.96%	2	5.88%	4	24.11%	2
NQFFUSMT	Momentum	5.20%	3	-0.49%	6	22.84%	3
NQFFUSLVT	Low Volatility	1.65%	4	15.87%	3	18.43%	4
NQFFUSVT	Value	-4.58%	6	25.16%	1	15.84%	5
NQFFUSHYT	High Yield	0.23%	5	19.07%	2	14.28%	6
NQUS500LCT	Market	1.09%	--	11.80%	--	21.99%	--

Having been the second-worst performing factor in 2015, the second-best performing factor in 2016, and the worst performing factor in 2017, the High Yield Index has experienced both sides of the mean reversion phenomenon in recent years. In 2018, the NQDOG Index aims to capture the future upward mean reversion predicted by High Yield's relative underperformance in 2017. The Nasdaq Factor Dog Index offers a transparent, rules-based approach to factor-based allocation that is both strategic and dynamic in its creation of factor-driven outperformance.

Endnotes

1. https://www.investopedia.com/news/surprising-factor-leads-smart-beta-flows/; http://www.nasdaq.com/article/2017-new-etf-inflows-near-500-billion-cm894405; https://www.etftrends.com/smart-beta-channel/how-value-factor-has-dominated-smart-beta-flows/

2. https://www.tapinto.net/towns/westfield/columns/point-view-wealthpoints/articles/favor-value-over-growth-for-2018

More Information

For more information on the Nasdaq Factor Dog (NQDOG) Index, please visit www.business.nasdaq.com/indexes.