Optimal Asset Management

Q3 Factor Model Report

Note: the following performance analysis is based on Optimal's risk-mitigated factor sleeve models (see important disclaimers at the end of this document). In contrast to factor portfolios designed for academic research, each portfolio sleeve is designed for ease and efficiency of implementation, and integrates a factor-specific risk mitigation optimization within its construction methodology. See our publication "Factor Focus: An Introduction to Factor Allocation", available on our website www.optimalam.com for details.

In the third quarter of 2017, Momentum maintained its status as the strongest individual factor performer from among our suite of factors (Low Vol, Momentum, Quality, Value). This was a general continuation of the trend of the last many months, which have witnessed Momentum be the strongest performer against the other factors as well as the market (represented by the cap-weighted MSCI US Large cap universe).

Our Momentum factor sleeve returned 4.13% for the quarter, and is up 19.33% for the YTD. This compares with 14.33% for our cap-weighted benchmark. The other three factor returns were all positive for the quarter but, apart from Momentum, the market factor remained the strongest factor, outperforming the individual risk-mitigated factor portfolios for the quarter and the YTD.

Q3 and YTD Factors: Total Returns

Factor:	Momentum	Value	Quality	Low Vol	Market
Q3 Return	4.13%	2.32%	1.23%	2.52%	4.38%
YTD Return	19.33%	9.75%	8.50%	11.44%	14.33%

The near-term is atypical; longer-term factor performance has generally been quite strong against the market. This is consistent with the principle that underlies our investment philosophy, that exposure to core factors offer long-term excess returns above the market.

Long-Term Annualized Returns

Momentum	Value	Quality	Low Volatility	Market
Trailing 3 Years				
11.50%	10.66%	10.11%	12.28%	10.68%
Trailing 5 Years				
13.65%	16.91%	16.28%	14.71%	14.22%
Trailing 10 Years				
7.59%	9.36%	9.74%	8.95%	7.59%
Since June 2003				
10.73%	12.56%	12.64%	10.06%	9.36%

In fact, the rotation of Momentum from top near-term performer to weakest long-term performer speaks to the virtue of multi-factor portfolio strategies, as factor leadership changes hands often. The importance of multi-factor portfolio management, whether done in a strategy built directly by us, or by an investor or Advisor utilizing single-factor building blocks, is a core component of our investment philosophy.

The “Top 250 vs Bottom 250 Large Cap” Effect

Size is often thought of in terms of the “Small Cap” vs “Large Cap” narrative, but a much less-known fact is that there can be significant dispersion *within* the US Large Cap universe based on size as well.

To better understand this effect, we sorted all stocks in the MSCI US Large cap universe by market cap each quarter, and looked at a portfolio of the “Top 250” stocks based on market cap vs the “Bottom 250” Large cap stocks starting in June 2003, cap-weighted within each segment. This universe has consisted of 550 – 650 total stocks for years, so this split comprises nearly all of the Large cap universe. Looking at the first three rows of the table of returns across different time periods compared to the bottom two rows, a clear anomaly from typical behavior becomes apparent. Over longer time periods, the “Bottom 250” has outperformed the “Top 250”. In other words, smaller company stocks have traditionally beat the largest stocks, even within the large cap universe. In contrast, over the past year “Bottom 250” stocks have significantly *underperformed* the “Top 250” stocks over the last year, a clear flip from the long-term trend.

US Large Cap stock returns: “Top 250 Large” vs “Bottom 250 Large”

		"Top" - "Bottom" in Large Cap		
Timeframe	Trailing Period	Bottom-Top	Bottom Return*	Top Return*
June 2003 - Sep 2017	14 yrs, 4 mos	+2.65%	11.56%	8.90%
Oct 2007 - Sep 2017	10 yrs	+1.79%	9.12%	7.33%
Oct 2012 - Sep 2017	5 yrs	+1.60%	15.63%	14.02%
Oct 2016 - Sep 2017	Last Year	-5.26%	14.08%	19.34%
July 2017 - Sep 2017	Last Quarter	-1.38%	3.17%	4.56%

* Returns for periods >1 Year are Annualized

This “Bottom minus Top” spread of -5.26% in the past year is highly unusual in light of the tendency for the bottom half to outperform the top half over longer periods of time.

To provide a sense of how to attribute this unusual size effect in the context of our portfolios, we looked at how much of our portfolio is drawn from the Top 250 vs the Bottom 250. The following table compares these weights for the index vs our Premia Harvest portfolio, which we view as a broad market, diversified alternative to a traditional cap-weighted index.

Premia Harvest (PH) vs Index (last 4 Q's)

	Top 250	Bottom 250
% of PH portfolio in:	52%	22%
% of Index portfolio in:	82%	9%
PH overweight/underweight	-30%	+13%

The first thing that may jump out is just how little breadth there is in the cap-weight index generally. A full 82% of the ~630 stock portfolio is concentrated in the top 250 names, while the Bottom 250 account for a meager 9% of the total weight! The Premia Harvest portfolio, while also still oriented towards larger stocks, is much more balanced (52% and 22% of the portfolio to the Top and Bottom stocks, respectively).

Portfolios weighted for risk mitigation can generally be expected to underperform in periods where the "Top 250" stocks outperform the "Bottom 250" of the Large cap universe. However, over the longer term, such periods are unusual, and can presage a reversal, in which the "Bottom 250" segment may bounce back quite strongly.

<u>To sum it up:</u>

- Changing factor leadership (as exhibited by Momentum) implies that a multi-factor portfolio approach is the best way to gain exposures to factors. This can be done in a static "fix mix" fashion (similar to our Premia Harvest strategy), or a "dynamic" fashion (such as our Dynamic Alpha strategy which blends factors dynamically but systematically based on objective signals).

- The effect of market cap should be looked at in a more nuanced manner than the traditional "large cap/small cap" paradigm – there can be large dispersion among stocks even within the large cap segment that should be understood and invested in knowingly.

- Recent results notwithstanding, the long-term trend has clearly seen the "Bottom 250" segment within Large Cap outperforming the "Top 250" over time. This also brings diversification benefits. We believe a long-term investor should avail him/herself of the "free lunch" of a better diversified portfolio.

Regards,

Monty Joshi, CFA
Portfolio Manager
Optimal Asset Management

DISCLAIMERS

Information presented herein is for discussion and illustrative purposes only and is not a recommendation or an offer or solicitation to buy or sell any securities. Views expressed are as of the date indicated, based on the information available at that time, and may change based on market and other conditions.

This information is intended to be educational and is not tailored to the investment needs of any specific investor.

Investment decisions should be based on an individual's own goals, time horizon, and tolerance for risk. Nothing in this content should be considered to be legal or tax advice and you are encouraged to consult your own lawyer, accountant, or other advisor before making any financial decision.

Investing involves risk, including risk of loss.

Stock markets are volatile and can fluctuate significantly in response to company, industry, political, regulatory, market, or economic developments. Investing in stock involves risks, including the loss of principal.

Past performance is no guarantee of future results.