

# MOMENTUM AND ACTIVE EQUITY RETURNS IN 2016 Q1

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## EXECUTIVE SUMMARY

Anecdotally, the first quarter of 2016 was challenging for many active managers and most hedge fund strategies, including equity long/short and equity market neutral strategies. The financial press put forth the notion that many managers were crowded into the same trades (e.g., short energy) and blame the poor performance on the violent turn in cross-sectional equity momentum<sup>1</sup>. This raises several interesting questions as Numeric thinks about our positioning for the rest of the year. First, in a historical context, how bad was momentum in the first quarter? Second, can we quantify how much momentum impacted hedge fund returns over this period? Third, was it obvious that momentum was crowded coming into the year, and if so, have conditions moderated at all? Lastly, how have Numeric’s portfolios adjusted so far this year?

To run our analysis, we focused on the largest 3,000 stocks in the Numeric developed markets universe. For simplicity, we focused on two pure price momentum metrics: M9\_R and M9\_SA. These represent simple nine month momentum alphas with the most recent two weeks excluded (because of price reversal). M9\_R is raw while M9\_SA is sector-adjusted. The two versions are highly correlated, but one can see differences in years when there are significant sector divergences (e.g., Energy in 2015).

## HOW BAD WAS MOMENTUM IN THE FIRST QUARTER?

Momentum had a difficult quarter, but the first quarter of 2016 ranked only as the 8th worst quarter in the last 15 years (Table 1), hardly a disaster, in our view, and only equating to a roughly -1 standard deviation event.

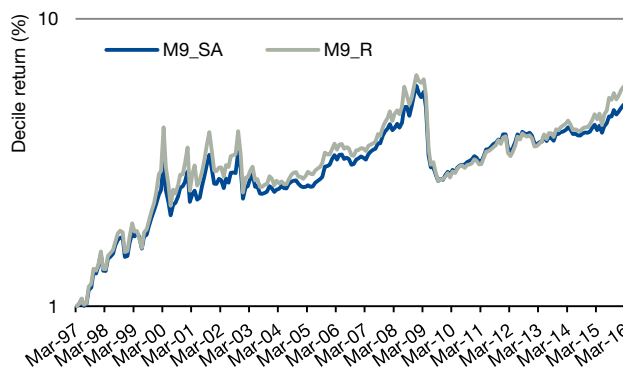
Table 1. Worst momentum quarters in last 15 years (quintiles)

	M9_SA	M9_R
200906	-29.9	-33.1
200212	-18.0	-22.9
200112	-16.6	-20.7
200306	-11.5	-12.4
200903	-9.6	-10.0
201203	-9.4	-10.9
200909	-6.1	-8.0
201603	-5.4	-5.6
201212	-5.1	-5.9
200412	-2.9	-3.6

Source: Numeric Investors LLC.

Looking at a long term chart of Momentum performance (Figure 1), the recent drawdown is not nearly as significant as the 2009 drawdown, let alone several other drawdowns that occurred in the early 2000s. Additionally, one can observe the difference between raw and sector-adjusted momentum over the last few years. From 2013-2015, raw momentum gained 57.4% while sector-adjusted momentum gained only 32.8%, driven by significant dispersion across sector returns which effectively predicted future sector returns (i.e., the general underperformance of energy).

Figure 1. Cumulative log return largest 3,000 stocks in global developed markets



Source: Numeric Investors LLC.

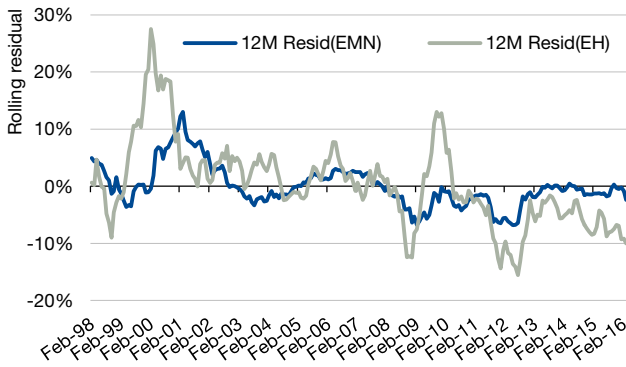
## DID MOMENTUM NEGATIVELY AFFECT HEDGE FUND PERFORMANCE IN THE FIRST QUARTER?

This is a more difficult question to answer for a variety of reasons. Besides not having all the data on Q1 2016 performance, we have no way of knowing how much momentum investors were incorporating – either explicitly (e.g., Numeric) or implicitly (e.g., a fundamental strategy). What we can do is estimate how much momentum hedge fund indices exhibit and estimate the drag that occurred in Q1.

Using the S&P 500 Index and raw momentum decile returns from March 1997 through March 2016, we estimate the HFRI Equity Hedge (“HFRI EH”) and Equity Market Neutral (“HFRI EMN”) Indices have 10% [7] and 6% [9] betas [t-statistics], respectively, to raw momentum. As raw momentum was -8.1% in Q1, this equates to a drag of approximately 80 and 48 basis points, respectively, to the HFRI EH and HFRI EMN. This is a crude estimate, as the underlying exposures drift over time. What is more interesting is that controlling for this affect, HFRI EH returns have been quite poor over the last year, and really over the last several years in general (Figure 2).

1. Note we are focusing exclusively on cross-sectional equity momentum here, which can be quite different than time-series momentum.

Figure 2. Rolling 12M residuals for HFRI EH and HFRI EMN indices



Source: Hedge Fund Research, Inc.

While the HF EMN has been roughly in line with expectations previously stated given market beta and momentum exposure, long-short managers (as measured by HFRI EH) have had significantly negative residuals for the better part of the last five years (and underperformed expectations by roughly 10% over the last year). Even though this is not directly related to the topic at hand, we believe it is an interesting data point that potentially explains investor frustration with long-short equity investing over the recent years.

### COULD WE HAVE SEEN THIS COMING? WHERE ARE WE NOW?

Was momentum crowded coming into the first quarter? This question is a double-edged sword. On the one hand, momentum benefits from increasing crowdedness as traders bid up popular stocks; on the other hand, this increases the risk to momentum (and potentially adds to the negative skewness that cross-sectional momentum tends to exhibit).

There are two interesting ways to look at this: first, what is the difference in valuation between high and low momentum portfolios? Second, what is the difference in shorting activity between high and low momentum portfolios?

Looking at a forward earnings/price metric (Figure 3), we see that high momentum stocks typically trade at a premium to low momentum stocks (hence the negative earnings yield spread), and it is somewhat low at the end of Q1 2016 (-4%) but was far more negative during the Dot-com bubble, the Global Financial Crisis, and the European Sovereign Debt Crisis.

Figure 3. Fwd E/P spread by momentum deciles

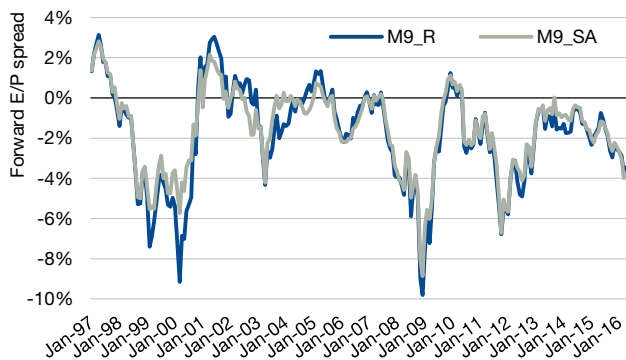
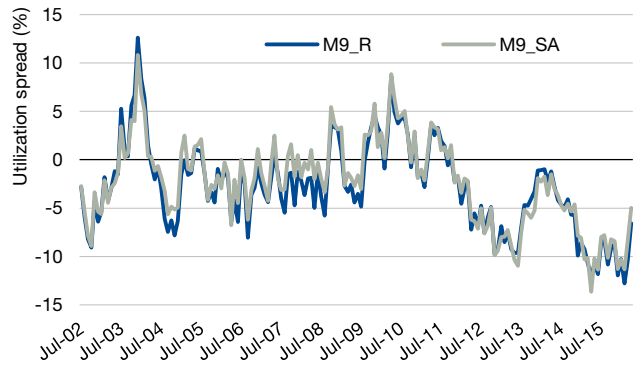


Figure 4. Utilization spread by momentum deciles

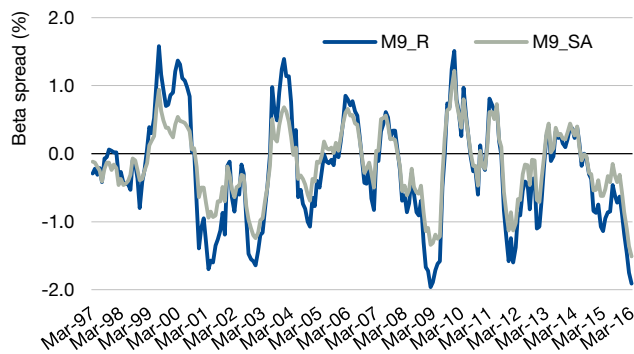


Source: Numeric Investors LLC and Data Explorers.

To examine the difference in shorting activity between high and low momentum portfolios, we can look at utilization<sup>2</sup> data (Figure 4) and observe that shorting activity was more concerning at the start of the quarter. In particular, utilization was about 10% higher in low momentum stocks than high momentum stocks from mid-last year through the start of 2016, driven by bets against poorly performing companies. Over the history of this data, it was at an extreme level. That being said, the spread in utilization halved during February and March, bringing us to more typical levels today. This is consistent with anecdotal evidence that there was extreme short covering activity during parts of the first quarter, and this may also help explain (or be related to) the difficult performance of long-short and market neutral hedge funds.

Another concern for either momentum or low volatility/low beta investors is the relationship between momentum and beta today (Figure 5). There is a substantial spread in beta between high and low momentum stocks, and the last time we saw these levels was in March 2009, right before the current (or just expired) bull market began. A 10% rally in the market might be expected to produce an approximately 15% drawdown in momentum today.

Figure 5. Beta spread by momentum deciles



Source: MSCI Barra and Numeric Investors LLC.

### HOW HAVE NUMERIC'S PORTFOLIOS ADJUSTED?

Numeric does not generally engage in "model-timing", but our investment process incorporates a Style Momentum model, which essentially tilts a portfolio towards factors that are being rewarded in the market place. For much of last year, this meant that many of our portfolios had modestly more (less) momentum (value) than normal.

2. Utilization refers to the % of available inventory that is shorted in a particular stock. A positive (negative) spread here indicates positive momentum stocks are more (less) heavily shorted than negative momentum stocks.

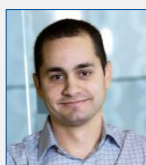
During the first quarter, we noticed some significant (and organic) changes in our portfolio exposures (Table 2). Driven predominantly by Style Momentum (although other signals such as Informed Investor have played a minor role), most strategies reduced their exposure to momentum and increased their exposure to value. Thus, if momentum continues to suffer from poor performance, our portfolios are less sensitive to that than they were a few months ago<sup>3</sup>.

**Table 2. Portfolio exposures<sup>4</sup>**

		12/31/15	1/31/16	2/29/16	3/31/16	Change
Long Only I	Barra Value	0.29	0.25	0.27	0.32	0.03
	Barra Momentum	0.26	0.26	0.22	0.14	-0.12
Long Only II	Barra Value	0.34	0.33	0.32	0.47	0.13
	Barra Momentum	0.47	0.49	0.47	0.39	-0.08
Market Neutral I	Barra Value	1.50	1.51	1.56	1.80	0.30
	Barra Momentum	1.31	1.05	1.02	0.99	-0.32
Market Neutral II	Barra Value	1.31	1.21	1.02	1.32	0.01
	Barra Momentum	2.05	1.94	1.87	1.78	-0.27
Market Neutral III	Barra Value	1.83	1.92	2.01	2.94	1.11
	Barra Momentum	2.78	2.94	2.03	1.22	-1.56

## CONCLUSION

This was a challenging quarter for many active equity and hedge fund strategies. The financial press focused, at least partially, on crowded trades, the rebound in energy and precious metals, and the poor performance of momentum. And although there is no doubt some truth in these statements, we believe the magnitude of these effects has been overstated. It was a difficult quarter for momentum, but statistically speaking, not atypical. Additionally, momentum crowding conditions appear to have materially changed during the quarter, at least as measured by the relationship between momentum and short activity. Finally, Numeric's investment process includes a model that allows our exposures to evolve over time to hopefully put ourselves on the right side of various factor regimes. Today we have significantly less exposure to momentum than just a few months ago.



### Author

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Co-Chief Investment Officer and Head of Hedge Fund Strategies

Dan is Co-Chief Investment Officer of Man Numeric ('Numeric'), and also serves as Head of Hedge Fund Strategies. Dan has had multiple roles at Numeric, including Director of Small Cap Strategies from 2004-2010, Head of Hedge Fund Strategies from 2010-present, member of the Investment Committee from 2004-present, and senior member of the Strategic Alpha Research Team from 2010-2015. He has conducted a wide range of research, including areas such as momentum, earnings quality, valuation, investor behavior, and market timing. He joined Numeric as an intern in 1998 and began working full time in 1999 after receiving his B.A. in Economics with honors from Harvard University. Dan is a CFA charterholder.

<sup>3</sup>. It should be noted that most of our portfolios have persistent positive exposure to both value and momentum. The incorporation of style momentum in our process merely adjusts (either positively or negatively) the exposures of each in our portfolios, in addition to other generic factor exposures.

<sup>4</sup>. The five strategies listed are representative strategies.

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