MSCI

Market Insight

The Market Spin Cycle:

Uncovering Style and Sector Rotation in a Flat Market

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Introduction

Recent US equity market performance, driven by a significant decline in glamour (high-growth, high-momentum) names, has attracted a lot of attention from market analysts.[1] By now it is well publicized that, despite the range-bound performance of the US equity market since March, there have been significant differences among the performance of various sectors of the economy. For example, while the MSCI USA IMI Index is flat over this period, the best performing Telecommunications sector gained 8.3% and the worst performing Consumer Discretionary sector declined 4.5%, prompting talks of sector rotation from cyclical to counter-cyclical sectors.

We contribute to this discussion by focusing on what we view as a ***rotation in investment styles.***[2]

Using MSCI Barra models, we identify ***declining performance in*** growth-oriented styles currently associated with risk-taking behavior, such as ***Beta, Growth, and Momentum***, with ***improving performance in Value, Profitability, and Size***[3], styles appealing to more risk-averse investors focused on valuations.

This rotation has been observed within majority of GICS® sectors, but ***it has been most pronounced in Health Care, Information Technology, and Consumer Discretionary***, the three sectors with the weakest performance from March 1 to May 15, 2014.

The rotation of sectors and styles signals greater uncertainty about the speed of the economic recovery. The ***strong performance of both the Leverage and Profitability*** styles is consistent with investors' concerns surrounding future growth of the economy.[4] Highly-levered firms would benefit from continuation of low interest rates existing in the current low-growth environment and highly-profitable firms with healthy balance sheets and income statements are expected to better adjust to lower economic growth conditions. This is further supported by the sector and style returns leading up to the below-consensus GDP announcement on April 30th.[5]

While it is too early to say how long this rotation will last, investors can benefit from managing their portfolio exposures to the most impacted investment styles.

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[1] "Tech Stocks Are Still 'Too Silly' For Some". Steven Russolillo and Matt Jarzemsky. Wall Street Journal. 5/11/2014

[2] Investment Styles refer to factors in the Barra US Sector and US Small Cap Equity models.

[3] Size style refers to an investment strategy that takes long positions in large capitalization stocks while taking short positions in small capitalization stocks.

[4] "Interest Rates Sink Globally in Expectation of Stimulus", Min Zeng, Wall Street Journal. 5/14/2014

[5] The signals from the MSCI Macroeconomic Model are currently supportive of a faster recovery to pre-crisis trend growth in the US. Should the realized growth figures at the end of May and June be revised upwards and prove to support recovery in the US economy, a recent MSCI Research Insight suggests that investors are likely to see a reversal in these recent trends.

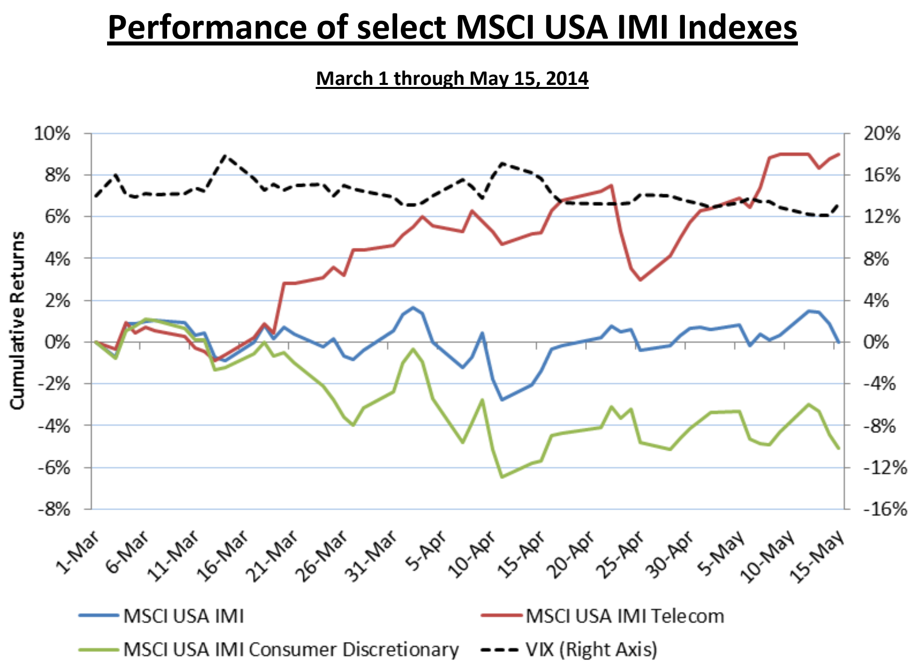
Overall Market Environment and Sector Performance

As can be noted from ***Performance of select MSCI USA IMI Indexes*** (*Figure 1 below*), US equity market performance over the period March 1 to May 15, 2014 was uneventful. The MSCI USA IMI Index was range-bound and finished the period up a mere 0.1%.

Future expectations of volatility - as represented by the CBOE Volatility Index (VIX) - were low and also in a narrow range over the period.

From a market-level view, it appears that the low volatility environment previously associated with a transparent and accommodative Fed[6] continued to hold true. ***However this uneventful view masked what was happening at the sector level.***

Figure 1:



During this period, defensive sectors tended to outperform cyclical ones. As illustrated in ***U.S. Market Performance by Sector*** (*Table 1*), the top three performing sectors, namely Telecommunications, Energy, and Consumer Staples experienced positive returns ranging from 4.2% to 8.3%, while the bottom three performing sectors, Consumer Discretionary, Health Care, and Information Technology, delivered negative returns ranging from -0.2% to -4.5%. Furthermore, the most volatile sectors were associated with the worst absolute performance. These two key observations support the notion that investors became more cautious about investing in previously popular sectors over this period.

[6] Fed refers to the U.S. Federal Reserve Bank

Table 1:

U.S. Market Performance[7] by Sector

March 1 through May 15, 2014

	Return	Volatility	Sharpe Ratio
MSCI USA IMI	**0.1%**	**5.4%**	**0.02**
Telecommunications	**8.3%**	**5.4%**	**1.52**
Energy	**6.7%**	**5.3%**	**1.25**
Consumer Staples	**4.2%**	**3.6%**	**1.18**
Utilities	4.4%	5.6%	0.79
Industrials	2.0%	5.8%	0.34
Materials	1.7%	5.9%	0.29
Financials	0.3%	6.0%	0.05
Information Technology	**-0.2%**	**6.9%**	**(0.03)**
Health Care	**-2.0%**	**7.0%**	**(0.28)**
Consumer Discretionary	**-4.5%**	**6.7%**	**(0.67)**

Investment Style Performance

To understand investment style rotation, we analyzed the performance of investment styles as defined in the MSCI Barra US Sector[8] and MSCI Barra US Small Cap[9] models.

Can we identify a change in investor sentiment into a defensive mode?

To do this, we would expect to find fundamentally-driven styles, such as Value and Profitability, or styles that appeal to risk-averse investors, such as Size, to perform well. On the other hand, we would expect growth-like styles, such as Growth and Momentum or styles that are associated with risk-taking behavior, such as Beta and Residual Volatility, to perform poorly.

The results in ***Investment Style Risk Adjusted Performance*** (*Table 2*) outline a clear investment style rotation. Beta, Residual Volatility, Growth and Momentum all performed poorly, while Profitability, Value and Size performed well in both total market and small capitalization segments of the market.

[7] Returns, volatilities, and Sharpe ratios are calculated for the March 1 to May 15, 2014 period and are not annualized.

[8] See The Barra US Sector Equity Model Methodology and Empirical Notes

[9] See The Barra US Small Cap Equity Model Empirical Notes

Table 2:

Investment Style Risk-Adjusted[10] Performance

March 1 through May 15, 2014

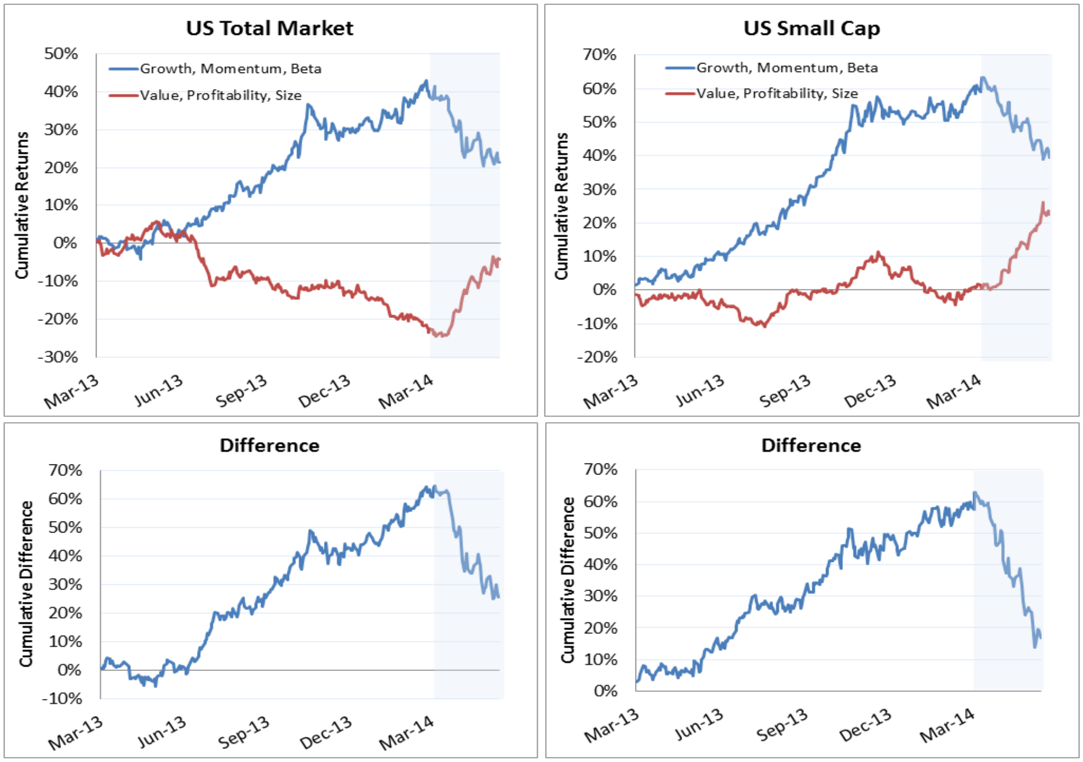
	Total Market	Small Cap		Total Market	Small Cap
Seasonality	3.5	1.4	Long-term Reversal	0.5	0.1
Leverage	2.6	1.7	Liquidity	(0.2)	(0.8)
Value	2.4	2.2	Prospect	(0.4)	0.8
Short-term Reversal	2.1	2.0	Industry Momentum	(0.8)	(1.1)
Sentiment	2.0	(0.9)	Beta	(1.0)	(1.2)
Profitability	2.0	1.6	Growth	(1.0)	(1.1)
Earnings Quality	1.9	1.4	Momentum	(1.1)	(1.2)
Size	0.9	1.0	Residual Volatility	(1.3)	(0.5)
Asset Turnover	0.8	1.3			

Digging deeper we see the disparity of returns. Plotting the cumulative return of *Momentum, Beta & Growth as a group* versus *Value, Profitability & Size as a group* for both the total market and small cap market in ***Growth, Momentum & Beta vs. Value, Profitability & Size Styles*** (*Figure 2*) shows the disparity of returns between these two groups of styles over the preceding year.

Figure 2:

Growth, Momentum & Beta vs. Value, Profitability & Size Styles

March 1 2013 through May 15, 2014



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[10] Risk-adjusted performance is calculated by dividing realized returns by volatilities measured over the March 1 to May 15, 2014 period and is not annualized.

It is clear that investors initially assigned rising valuations to Momentum, Beta & Growth as compared to Value, Profitability & Size. The spread in returns widened to a peak in late February 2014 but since then has reversed dramatically.

Further highlighting this reversal in investor sentiment, the ***Risk-Adjusted Performance of Select Investment Styles*** (*Table 3*) underlines this change in investor sentiment by comparing returns for select styles in the one-year period leading up to March 2014 to returns over the March 1 to May 15 2014 period.

Table 3:

Risk-Adjusted Performance of Select Investment Styles

March 1, 2013 through May 15, 2014

	Mar '13 - Feb '14	Mar - May '14
Value	(0.9)	2.4
Sentiment	(1.3)	2.0
Profitability	(1.7)	2.0
Size	(0.7)	0.9
Industry Momentum	0.0	(0.8)
Beta	0.4	(1.0)
Growth	2.8	(1.0)
Momentum	1.1	(1.1)
Residual Volatility	0.1	(1.3)

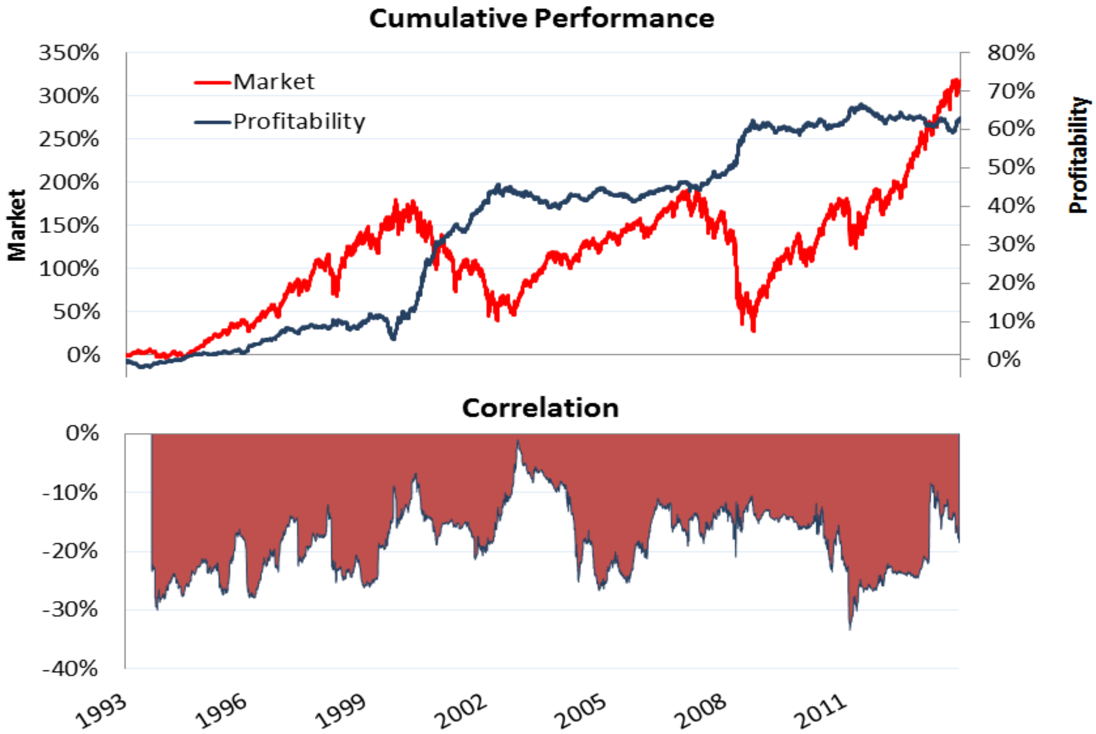
A few notable observations:

1. The magnitude and consistency of the risk-adjusted returns and their reversal during the recent period is consistent with investment style rotation from growth-oriented styles associated with risk-taking behavior towards value-oriented styles that appeal to risk-averse investors.
2. While small capitalization stocks outperformed large capitalization stocks during the one year period leading up to March 2014, large capitalization names have outperformed small capitalization names during the recent period. This is consistent with the rotation of investment strategies towards more stable, less uncertain stocks.
3. The strong performance of the ***Leverage*** style, which represents an investment strategy that takes long positions in highly-levered companies and short positions in less-levered companies, is consistent with investor concerns about low economic growth and expectations about the Fed's continuation of accommodative policies. Highly-levered firms are expected to be beneficiaries of low interest rates.
4. The strong performance and reversal of the ***Profitability*** style, which represents an investment strategy that takes long positions in profitable companies and short positions in less profitable companies, adds to the evidence of investor concerns about low economic growth. Firms with high profitability are expected to better adjust to lower economic growth conditions. The long-term performance of the Profitability style outlined in ***Cumulative Returns & Correlation of Profitability vs. U.S. Market*** (*Figure 3*) demonstrates its significant risk-adjusted returns around periods of market volatility and the consistent negative correlation with overall U.S. equity market performance.

Figure 3:

Cumulative Returns & Correlation[11] of Profitability vs. U.S. Market

July 2 1993 through May 15, 2014



Sector Style Performance

Given the significant differences in sector and investment style performance, was style performance across sectors also affected? Was rotation in investment styles within sectors more pronounced in those sectors that experienced the weakest performance?

We pulled the risk adjusted performance of investment styles within sectors from MSCI Barra US Sector model. The results as seen in ***Investment Style Risk Adjusted Returns by Sector*** (*Table 4*) highlight three key findings:

1. ***Value*** **and** ***Profitability*** **styles performed positively** for nine and seven out of ten GICS sectors respectively suggesting that a shift towards more profitable companies with relatively lower valuations has been widespread across most segments of the economy.
2. ***Beta*** **and** ***Growth*** **styles have performed negatively** in the majority of sectors which confirms that the shift in investment strategies was broad-based and not driven by a few select sectors.

[11] Rolling correlations using 2-year realized returns

3. **The magnitude of the shift in styles varied across sectors**. For example, the rotation from high *Beta, Growth*, and *Momentum* styles towards *Profitability* and *Value* was more pronounced for Health Care and Information Technology which underperformed. In the Telecom and Energy sectors, which outperformed, the *Momentum* style performed positively.

Table 4:

Investment Style Risk-Adjusted Returns by Sector

March 1 through May 15, 2014

	TEL	EN	CS	UT	IND	MA	FIN	IT	HC	CD
Seasonality	0.0	(0.5)	1.4	1.1	1.3	0.5	(0.2)	2.6	2.0	1.4
Leverage	0.0	1.9	2.6	0.9	1.4	(1.0)	(0.5)	1.6	1.5	1.8
Value	0.6	0.9	2.6	0.1	0.5	(0.2)	1.4	2.3	1.6	2.6
Short-Term Reversal	0.3	1.9	1.3	(0.3)	0.3	0.1	4.2	1.1	2.3	1.4
Sentiment	(0.0)	(0.1)	0.4	2.6	0.1	1.0	1.3	0.5	0.1	1.3
Profitability	1.2	(1.0)	0.9	(2.6)	1.4	2.9	0.2	1.7	1.8	(0.6)
Earnings Quality	0.3	1.2	0.2	0.5	1.1	1.9	1.4	(0.3)	0.8	(0.7)
Size	(0.2)	0.6	1.1	0.7	(0.0)	(0.2)	1.3	1.3	0.1	0.3
Asset Turnover	(1.0)	0.9	(0.2)	(0.7)	0.3	0.3	(1.0)	(0.7)	1.4	0.9
Long-Term Reversal	1.4	(0.2)	(0.5)	0.6	0.6	0.0	(0.8)	1.4	0.1	(0.6)
Liquidity	0.0	(0.2)	(0.2)	1.4	0.4	0.9	(1.3)	(0.5)	0.5	(0.7)
Prospect	0.4	0.4	(0.4)	(2.5)	1.4	1.1	(1.6)	0.9	0.1	(0.3)
Industry Momentum	(0.9)	(0.6)	(0.5)	(1.4)	0.4	0.6	(1.0)	(0.6)	(0.1)	0.6
Beta	(1.6)	(0.6)	(0.1)	(0.7)	(1.3)	(0.7)	0.1	(0.7)	(0.8)	(1.3)
Growth	(1.2)	0.1	(0.9)	(1.1)	(0.4)	(0.5)	0.0	(1.5)	0.6	(0.5)
Momentum	0.6	0.2	0.3	(0.5)	(1.8)	0.4	(1.8)	(0.6)	(1.9)	(0.5)
Residual Volatility	(2.6)	(0.9)	(0.4)	(1.7)	(2.0)	(1.7)	(1.0)	0.3	(0.2)	(0.8)

TEL: Telecom, EN: Energy, CS: Consumer Staples, UT: Utilities, IND: Industrials, MA: Materials

FIN: Financials, IT: Information Technology, HC: Health Care, CD: Consumer Discretionary

Digging deeper, we analyze the time-series dynamics of the Momentum, Value, and Profitability investment styles in Health Care and Information Technology. ***Performance of Key Investment Styles in Health Care & Information Technology*** (*Figure 4*) clearly demonstrates that as returns to the *Momentum* investment style began to decline, *Value* and *Profitability* gained strength.

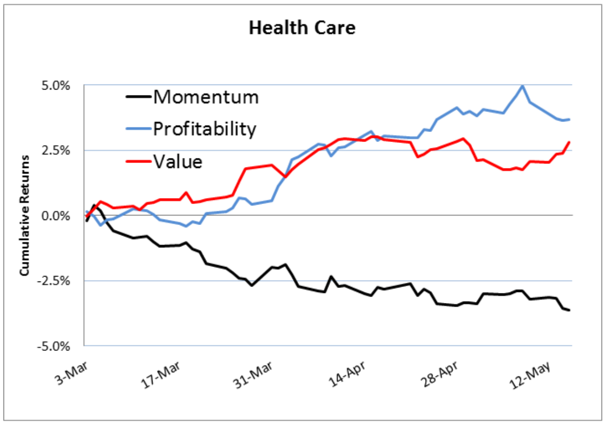
The weekly z-scores highlight the significance and persistence of investment style performance during the analysis period.

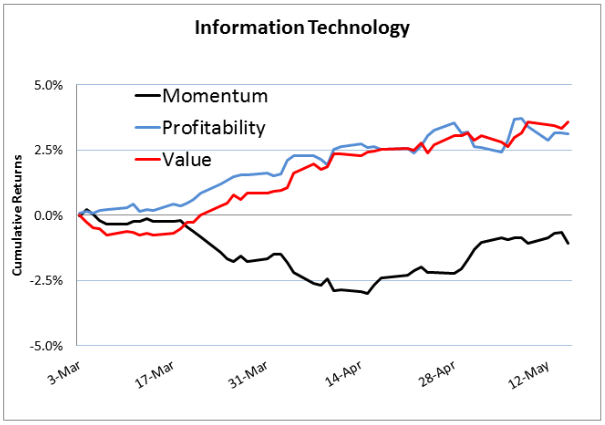
Figure 4:

Performance of Key Investment Styles in Health Care & Information Technology

Cumulative returns of select sector-styles using MSCI Barra Sector Model

March 1 through May 15, 2014





HealthCare	3/7*	3/14	3/21	3/28	4/4	4/11	4/18	4/25	5/2	5/9	5/15
Momentum	(1.1)	(1.2)	(1.3)	(1.6)	(0.1)	0.1	(0.3)	(1.1)	0.7	0.2	(0.8)
Profitability	(0.4)	(0.0)	0.6	0.9	4.5	0.9	0.9	1.4	0.9	1.2	(1.4)
Value	0.7	0.7	(0.0)	2.9	0.3	2.3	(0.1)	(0.8)	(1.0)	(0.7)	1.6

Information Technology	3/7	3/14	3/21	3/28	4/4	4/11	4/18	4/25	5/2	5/9	5/15
Momentum	(0.8)	0.3	(1.3)	(2.1)	(0.9)	(1.4)	1.0	0.5	2.5	0.4	0.0
Profitability	0.7	(0.2)	2.1	2.1	2.2	1.0	(0.3)	2.1	(1.8)	3.0	(0.8)
Value	(2.0)	(0.1)	2.1	2.3	2.0	1.8	0.5	0.4	0.9	(0.3)	(0.0)

*Week ending, z-scores

Stock Level Details

We conclude this study with a look at individual securities with the greatest decline over the analyzed period. Results below confirm that the worst-performing stocks had high sensitivity to Momentum and Beta, and rated poorly in terms of Value and Profitability. Moreover, all but one of these stocks belong to the worst performing sectors: Health Care, Information Technology, and Consumer Discretionary.

Table 5:

Individual Stock Characteristics and Performance

Underperforming stocks with market capitalization above $10 billion

As of 2/28/14	Sector	Return*	Momentum	Beta	Profitability	Value
Splunk	Information Technology	-53%	1.7	2.0	(2.5)	(1.4)
Biomarin Pharmaceutical	Health Care	-29%	(0.3)	1.6	(1.2)	(1.4)
Whole Foods	Consumer Staples	-28%	(0.2)	0.5	(0.6)	(0.9)
Pharmacyclics	Health Care	-28%	0.8	2.0	0.9	(1.2)
Linkedin	Information Technology	-28%	0.8	0.6	(1.2)	(1.3)
Tesla Motors	Consumer Discretionary	-23%	2.6	1.7	(3.4)	(1.7)
Netflix	Consumer Discretionary	-23%	2.2	(0.7)	(0.9)	(1.4)
Perrigo	Health Care	-20%	0.3	(0.9)	(0.2)	(0.5)
Vertex Pharmaceuticals	Health Care	-19%	0.5	1.4	(0.6)	(1.4)
Amazon	Consumer Discretionary	-18%	0.4	1.9	(1.2)	(1.3)
Intuitive Surgical	Health Care	-18%	(1.5)	(0.3)	0.7	(0.6)
Alliance Data Systems	Information Technology	-18%	0.7	1.5	(0.3)	(0.8)
Salesforce.com	Information Technology	-18%	0.1	1.7	(2.1)	(1.3)
Cerner Corp	Health Care	-17%	(0.2)	0.9	(0.0)	(0.8)
Trip Advisor	Consumer Discretionary	-17%	0.9	1.3	0.5	(1.4)

* Returns data from 03.01.14 to 05.15.2014

Conclusion

Recent U.S. equity market performance, driven by a significant decline in glamour (high-growth, high-momentum) names, has attracted a lot of attention from market analysts.

In our analysis of market performance from March 1 to May 15 2014, we were able to clearly identify a rotation ***from cyclical to defensive sectors*** and ***from growth-oriented styles*** associated with risk-taking behavior towards more ***defensive styles that appeal to risk-averse investors*** focused on company valuations.

This rotation has been observed among the majority of GICS® sectors, but ***it has been more pronounced in Information Technology, Health Care, and Consumer Discretionary***, the three sectors with the weakest performance during this time period.

We also note the strong performance of the ***Leverage*** and ***Profitability*** styles consistent with investor concerns about low economic growth and expectations about the Fed's continuation of accommodative policies.

These observations point to uncertainty about the speed of economic recovery as the most likely explanation of recent market performance. While it is too early to say how long this rotation will last, investors can benefit from managing their portfolio exposures to the most impacted investment styles.

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[1] *As of September 30, 2013, as reported on January 31, 2014 by eVestment, Lipper and Bloomberg* *May 2014*