

## **IQS Commentary for July 2017**

### ***The Month that was ...***

The DJIA has now passed 22,000! While this is not a critical value for traders, chartists or mathematicians, it nonetheless represents another milestone by the DJIA. As we noted last month in our piece about the FANGA stocks, technology is driving the market higher this year, with Apple reporting strong numbers this week, giving the market yet another lift.

### ***Chart of the Month***

Our chart of the month looks at the level of volatility in 2017 through July and puts it in historical context. It feels like the market continues to rise almost daily, with very few downward blips. We explore this question in the chart of the month.

### ***Risk***

Increasing earnings, exceeding expectations, continued low rates, have all contributed to the rising market. While the market P-E is not cheap, it also isn't runaway expensive. Sustained low levels of VIX have shown no timing skill to forecast an immediate market correction, until of course the correction occurs. While VIX is a short-term forecast, it most closely resembles actual volatility from the recent past, until and unless some exogenous event or factor requires an increase in risk. No one should be surprised to see a correction after such a long bull run.

### ***Markets***

The S&P 500 has returned 11.6% year to date, with the technology heavy NASDAQ returning 17.9% year to date. The Russell 1000 Growth outperforming Russell 1000 Value by 16.8% to 5.8% year to date.



## US Market Summary 2017

**July: Technology, Large over Small, Growth over Value**

**2017: No difference YTD vs July**  
**Technology, Large over Small, Growth over Value**

	<u>YTD</u>	<u>July</u>
S&P 500	11.6%	2.1%
DOW	10.8%	2.5%
NASDAQ	17.9%	3.4%
Russell 1000	11.2%	1.9%
Russell 2000	5.7%	0.9%
Russell 1000 Growth	16.8%	2.6%
Russell 1000 Value	5.8%	1.3%



## Chart of the Month: Is there any Volatility or Dispersion in 2017?

Where did all the volatility go? After a positive return month for July, the S&P 500 total returns have been positive in all 7 months of the year. While all positive or all negative returns does not automatically mean volatility will be lower than normal, it has been pretty low so far in 2017.

In this analysis, we used the daily returns of the DJIA, since it represents the US large cap equities market reasonably well, even though it contains only 30 stocks. We also look at the dispersion of the annual returns for the constituents of the S&P 500 by year to learn if there is anything unusual about 2017 from that perspective.

The chart belows displays the annual return to the DJIA and the annualized standard (asd) deviation of the daily returns. The bull market of the 1990s, while notorious for low volatility and strong returns, still saw realized volatility in the double digits most years, though as low as 8.7% in 1993 and 1995. Through July 2017, the asd of daily returns is only 6.7%! Notoriously interesting years of 1987 and 2008 saw asd above 34%.

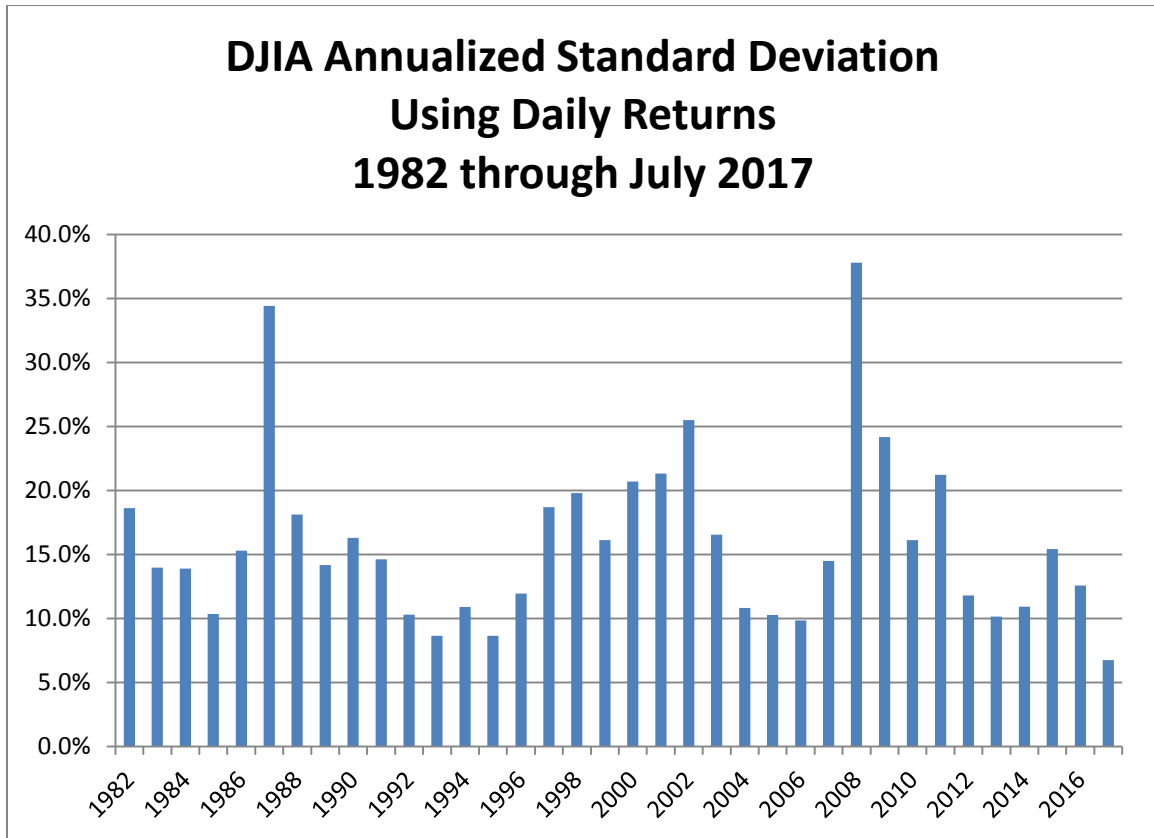
**Chart 1: Returns and Volatility by Year - DJIA**

<u>Year</u>	<u>Return</u>	<u>Annualized Standard Deviation</u>	<u>Year</u>	<u>Return</u>	<u>Annualized Standard Deviation</u>
1982	19.6%	18.6%	2000	-6.2%	20.7%
1983	20.3%	14.0%	2001	-7.1%	21.3%
1984	-3.7%	13.9%	2002	-16.8%	25.5%
1985	27.7%	10.4%	2003	25.3%	16.6%
1986	22.6%	15.3%	2004	3.1%	10.8%
1987	2.3%	34.4%	2005	-0.6%	10.3%
1988	11.8%	18.1%	2006	16.3%	9.8%
1989	27.0%	14.2%	2007	6.4%	14.5%
1990	-4.3%	16.3%	2008	-33.8%	37.8%
1991	20.3%	14.6%	2009	18.8%	24.2%
1992	4.2%	10.3%	2010	11.0%	16.1%
1993	13.7%	8.7%	2011	5.5%	21.2%
1994	2.1%	10.9%	2012	7.3%	11.8%
1995	33.5%	8.7%	2013	26.5%	10.2%
1996	26.0%	12.0%	2014	7.5%	10.9%
1997	22.6%	18.7%	2015	-2.2%	15.4%
1998	16.1%	19.8%	2016	13.4%	12.6%
1999	25.2%	16.1%	2017	10.8%	6.7%

\*Through July 2017

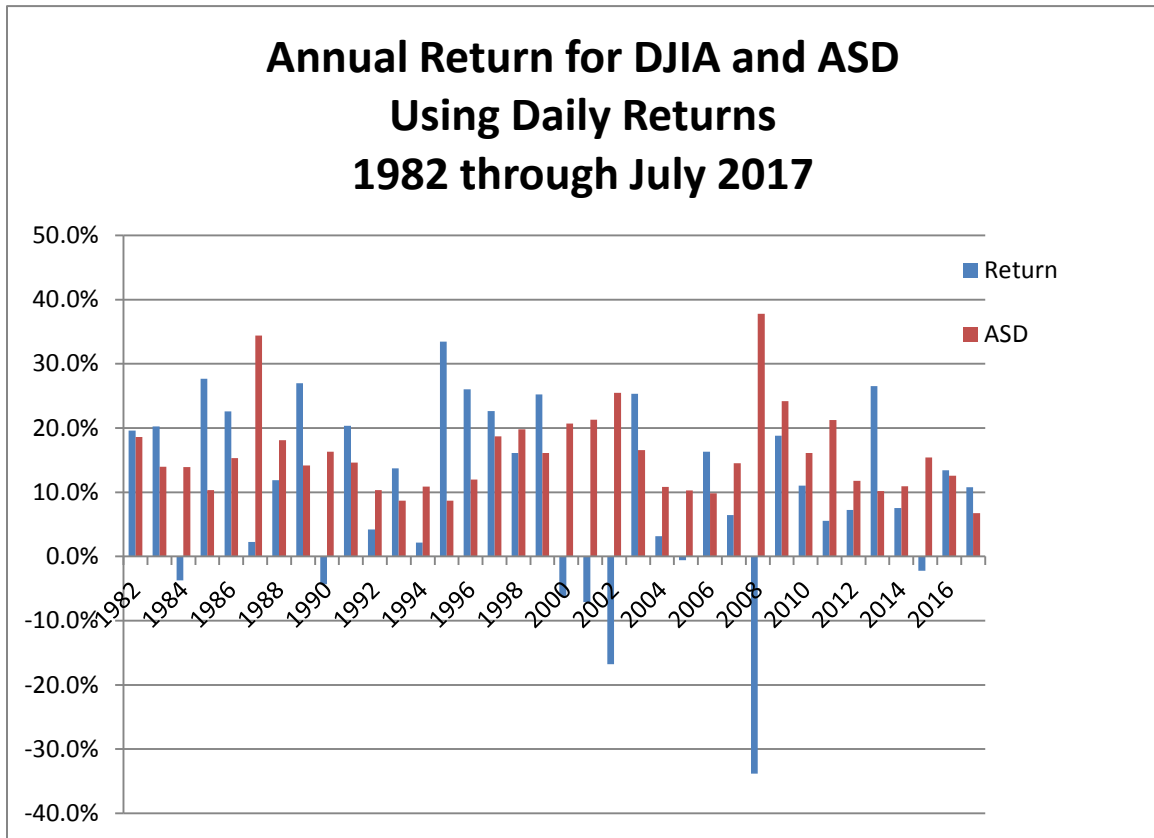


**Graph 1: Annualized Standard Deviation by Year using Daily Returns for DJIA**





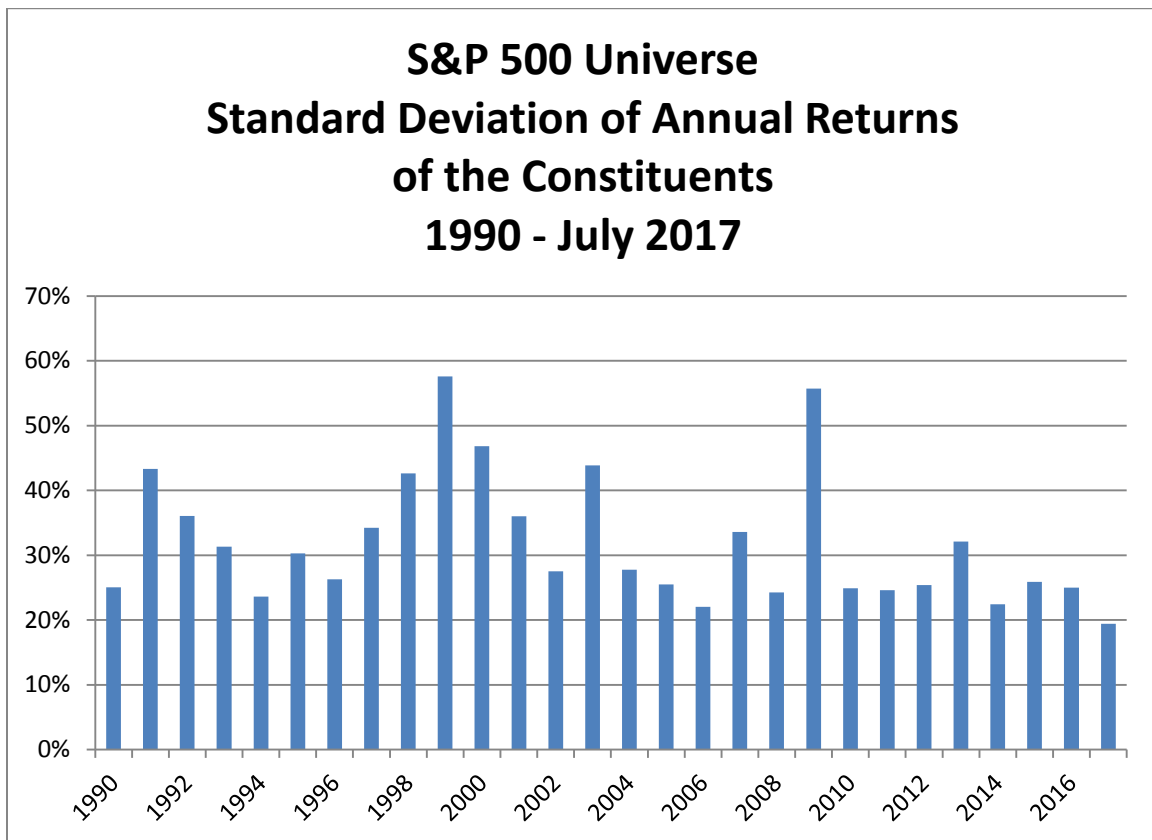
**Graph 2: Return and Annualized Standard Deviation (ASD) by Year using Daily Returns for DJIA**





While 2008 had a strong negative annual return and high volatility during the year, the dispersion of returns of the stocks in 2008 was no higher than average and much lower than 2009. As many have reported, during turbulent times “correlations go to 1.” As a result, many of the stocks moved together and downward, resulting in less dispersion of returns in the constituents for 2008 than one would have expected. While the volatility in 2017 is low looking at the daily returns of the DJIA in Graph 1 above, it also has shown low dispersion so far this year. See Graph 3 below for a pictorial representation of Dispersion by year.

**Graph 3: Standard Deviation of Annual Returns of Stocks in S&P 500**





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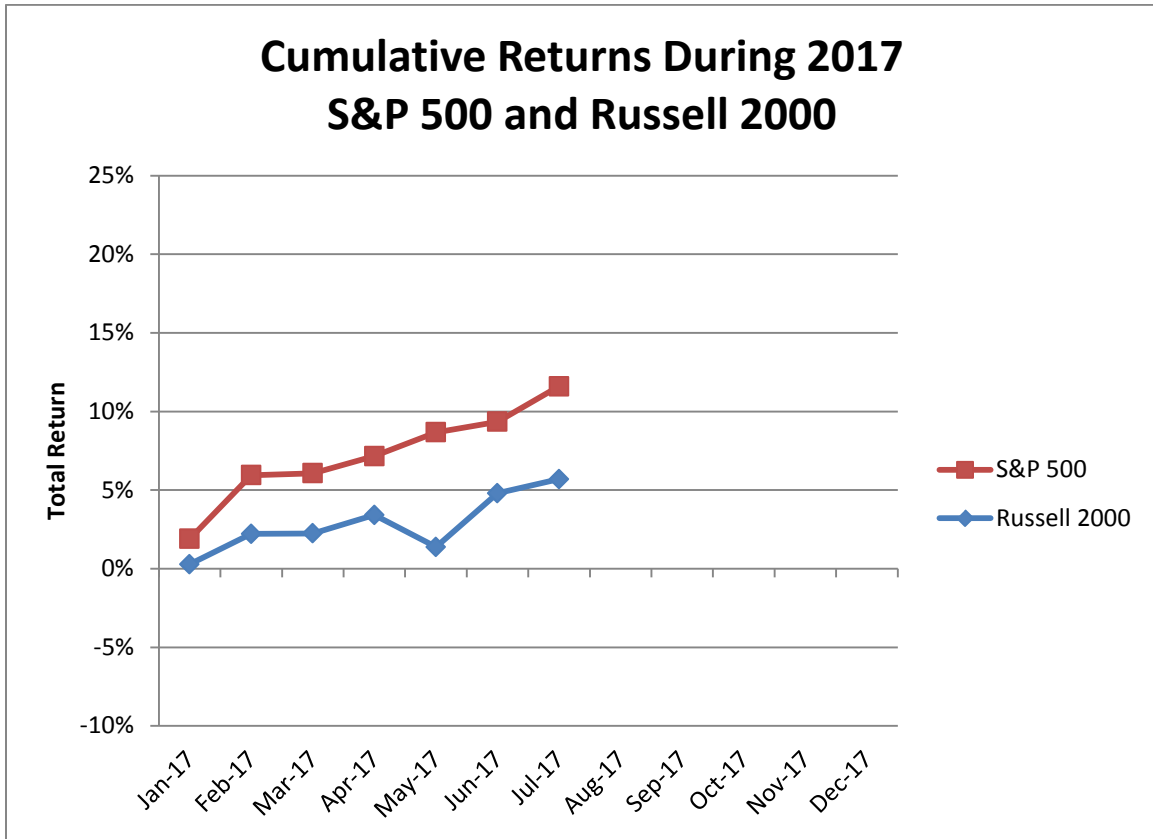
## Summary

2017 has shown low volatility both in cross-sectional returns of the constituents of the S&P 500 and the annualized standard deviation of the daily returns of the DJIA. Cross-sectional returns is a measure of dispersion of returns across the stocks in the S&P 500 while the standard deviation of the returns to the index is a measure of volatility. As we saw in 2008, there was low dispersion but high volatility. In 2009, there was high dispersion and above average volatility, but much lower than in 2008. The roaring 1990's saw low volatility but high dispersion. We are living in a quiet time right now, and as a contrarian, we may be getting ready for higher volatility and dispersion in the next few years.



## S&P 500 vs Russell 2000

The S&P 500 Keeps Climbing, while the Russell 2000 lags







## **Model Results**

### **IQS**

- The IQS model returned .9% for the 4 weeks ending July 29. The Top Decile returned 12.8% YTD, the Bottom Decile returned .9%, and the Universe returned 9.3% YTD.
- The sector-neutral IQS model returned 1.2% for the 4 weeks ending July 29. The Top Decile returned 12.7% YTD, the Bottom Decile returned 4.5%, and the Universe returned 9.3% YTD.
- During July, Improving Financials, Sentiment, Momentum and Value had positive top/bottom decile spreads. Only Balance Sheet was negative.

### **IQS 1000**

- The IQS 1000 model returned -.7% for the 4 weeks ending July 29. The Top Decile returned 15.8% YTD, the Bottom Decile returned 5.2%, and the Universe returned 12.7% YTD.

### **IQS No Momentum Model**

- The IQS Nomom model (IQS model without Momentum Category) model returned -.3% for the 4 weeks ending July 29. The Top Decile returned 14.3% YTD, the Bottom Decile returned 1.0%, and the Universe returned 10.9% YTD.

## Factor Weights

The IQS Adaptive/Dynamic Weighting Scheme:

As of August:

IQS dynamic factor model continues to provide a balanced, diversified set of weights across the five main categories. With low volatility and traditional quite end to the summer, systematic weighting scheme did not identify any new trends in the market environment or factor categories. The model weight turnover was extremely low from July to August, with the status quo the best set of weights at this time. We expect a more turbulent end to 2017.

### Notes:

- IQS model includes the IQS top 3000 stocks by capitalization.
- IQS 1000 includes the IQS top 1000 stocks by capitalization.
- IQS No Momentum includes all IQS factor categories except Momentum. The results for this model are based on the IQS 3000 stock universe.

Note: Results are specific to the IQS analysis. Real time results will vary depending on universe, frequency of trading, and other manager specific strategies.

## Summary of IQS Results for 4 Weeks Ending 7/29/2017

All returns are equal-weighted  
The results below are from paper portfolios, and are not based on actual trading.  
No transaction costs are included.

### Weekly Top and Bottom Decile Returns for IQS Composite Model

Week Ending	IQS Universe		Net
	Top Decile	Bottom Decile	
8-Jul	0.42%	-1.17%	1.59%
15-Jul	1.87%	2.24%	-0.37%
22-Jul	0.45%	-0.01%	0.46%
29-Jul	-0.58%	0.21%	-0.79%
MTD	2.16%	1.25%	0.92%
YTD	12.77%	0.91%	11.85%

### Weekly Top and Bottom Decile Returns for IQS Composite Model, Sector Neutral

Week Ending	Sector Neutral		Net
	Top Decile	Bottom Decile	
8-Jul	0.60%	-0.94%	1.54%
15-Jul	1.87%	1.67%	0.20%
22-Jul	0.49%	0.50%	-0.01%
29-Jul	-0.40%	0.16%	-0.56%
MTD	2.57%	1.38%	1.19%
YTD	12.74%	4.47%	8.27%

### Weekly IC for IQS Composite Model and Components

Week Ending	IQS	BAL	VAL	MOM	IMP	SEN
8-Jul	0.136	0.110	0.032	0.150	0.021	0.148
15-Jul	0.005	-0.027	-0.021	-0.012	0.028	-0.008
22-Jul	0.008	-0.018	-0.029	0.002	0.048	0.040
29-Jul	-0.026	-0.077	0.028	-0.052	0.004	-0.047
MTD	0.031	-0.003	0.003	0.022	0.025	0.033
YTD	0.041	0.025	0.004	-0.013	0.043	0.013

### Weekly Top and Bottom Decile Returns for IQS Component Models

Week Ending	BALANCE SHEET			VALUE		
	Top Decile	Bottom Decile	Net	Top Decile	Bottom Decile	Net
8-Jul	0.29%	-1.46%	1.75%	-0.19%	0.39%	-0.58%
15-Jul	1.23%	2.24%	-1.01%	1.69%	1.63%	0.06%
22-Jul	0.42%	0.38%	0.04%	0.38%	0.20%	0.18%
29-Jul	-0.70%	1.03%	-1.73%	-0.01%	-0.58%	0.57%
MTD	1.24%	2.17%	-0.94%	1.87%	1.64%	0.23%
YTD	8.99%	1.57%	7.42%	8.37%	15.12%	-6.75%

Week Ending	MOMENTUM			IMPROVING FINANCIALS		
	Top Decile	Bottom Decile	Net	Top Decile	Bottom Decile	Net
8-Jul	0.50%	-0.88%	1.38%	0.08%	-0.77%	0.85%
15-Jul	1.57%	2.05%	-0.48%	1.52%	1.80%	-0.28%
22-Jul	0.16%	0.10%	0.06%	0.41%	0.23%	0.18%
29-Jul	-0.06%	0.58%	-0.64%	-0.22%	-0.45%	0.23%
MTD	2.18%	1.84%	0.34%	1.79%	0.79%	1.00%
YTD	8.60%	10.04%	-1.44%	13.22%	-1.24%	14.46%

Week Ending	SENTIMENT		
	Top Decile	Bottom Decile	Net
8-Jul	0.60%	-0.95%	1.55%
15-Jul	1.93%	1.91%	0.02%
22-Jul	0.61%	0.19%	0.42%
29-Jul	-0.23%	0.42%	-0.65%
MTD	2.93%	1.56%	1.37%
YTD	11.09%	5.22%	5.87%

#### Notes:

IQS represents the IQS composite model.

IC or Information Coefficient is calculated as the Spearman rank correlation between the forecasted returns and actual returns.

IQS Universe includes approximately the largest 4000 stocks by market capitalization

Sector definition is determined by Zacks Information Research

## Summary of IQS Results (Top 1000 Stocks) for 4 Weeks Ending 7/29/2017

All returns are equal-weighted  
The results below are from paper portfolios, and are not based on actual trading.  
No transaction costs are included.

### Weekly Top and Bottom Decile Returns for IQS Composite Model

Week Ending	IQS Universe		Net
	Top Decile	Bottom Decile	
8-Jul	0.41%	-0.64%	1.05%
15-Jul	1.77%	2.33%	-0.56%
22-Jul	0.52%	0.25%	0.27%
29-Jul	-0.28%	1.15%	-1.43%
MTD	2.43%	3.10%	-0.67%
YTD	15.76%	5.20%	10.56%

### Weekly IC for IQS Composite Model

Week Ending	IQS
8-Jul	0.166
15-Jul	-0.017
22-Jul	0.009
29-Jul	-0.048
MTD	0.028
YTD	0.036

#### Notes:

IQS represents the IQS composite model.  
IC or Information Coefficient is calculated as the Spearman rank correlation between the forecasted returns and actual returns.  
IQS Universe includes approximately the largest 1000 stocks by market capitalization  
Sector definition is determined by Zacks Information Research

## Summary of IQS No Momentum Model Results for 4 Weeks Ending 7/29/2017

All returns are equal-weighted  
The results below are from paper portfolios, and are not based on actual trading.  
No transaction costs are included.

### Weekly Top and Bottom Decile Returns for IQS Composite Model

Week Ending	IQS Universe		Net
	Top Decile	Bottom Decile	
8-Jul	0.31%	-0.80%	1.11%
15-Jul	1.96%	2.40%	-0.44%
22-Jul	0.83%	0.63%	0.20%
29-Jul	-0.36%	0.79%	-1.15%
MTD	2.75%	3.03%	-0.27%
YTD	14.29%	0.97%	13.32%

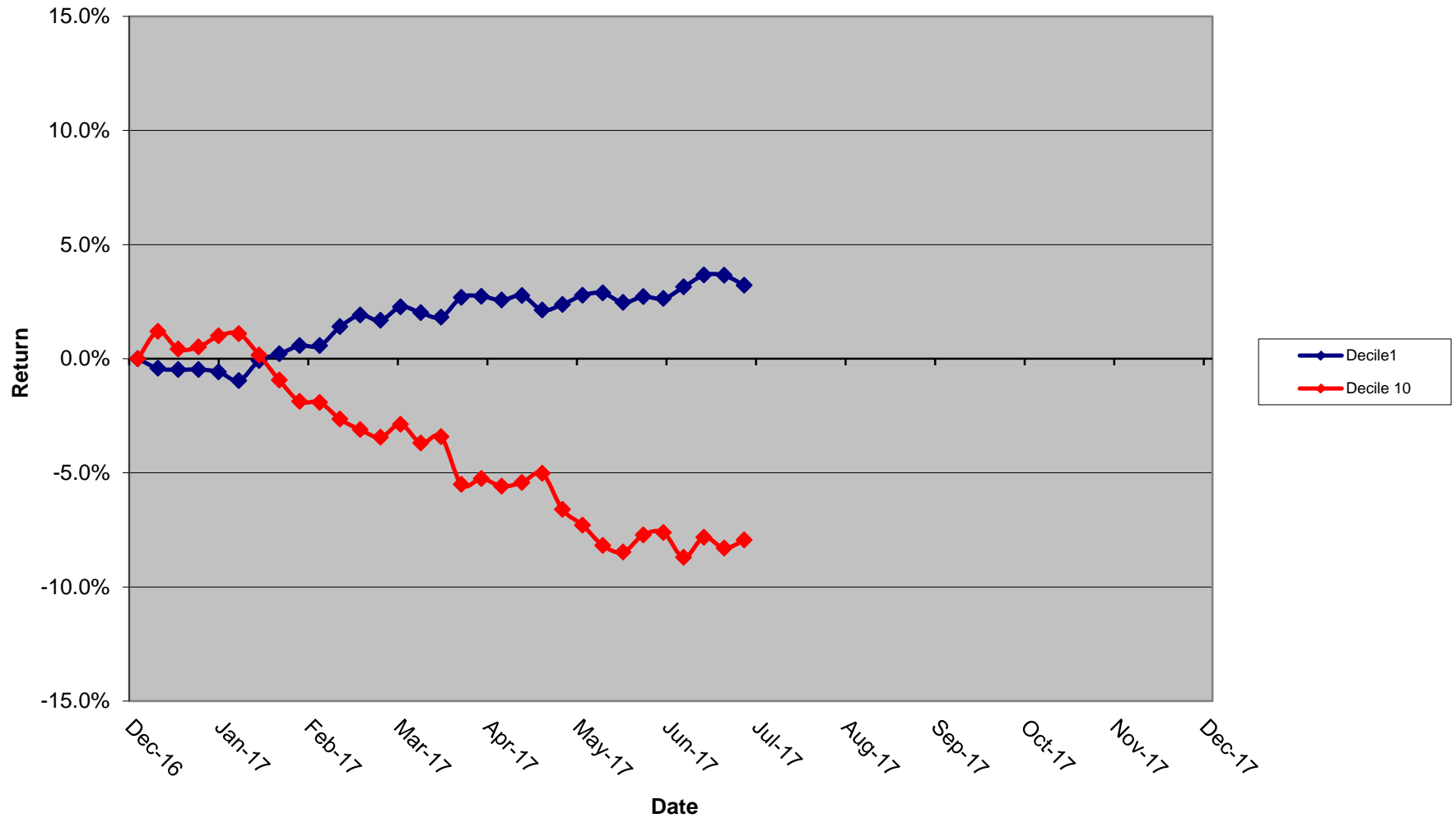
### Weekly IC for IQS Composite Model

Week Ending	IQS
8-Jul	0.100
15-Jul	-0.001
22-Jul	0.000
29-Jul	-0.033
MTD	0.017
YTD	0.043

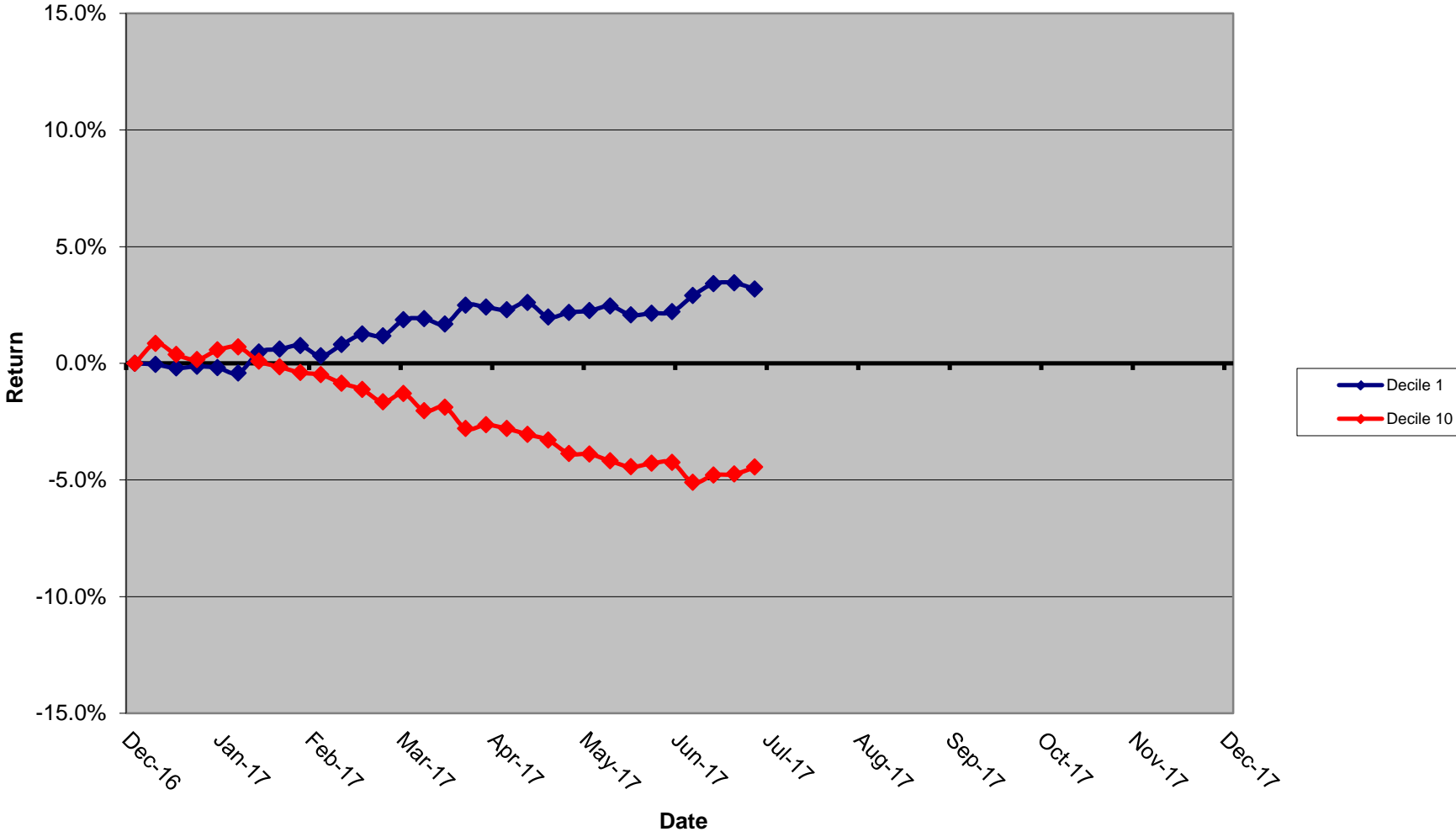
#### Notes:

IQS represents the IQS financial sustainability model, which is essentially the IQS composite model without momentum.  
IC or Information Coefficient is calculated as the Spearman rank correlation between the forecasted returns and actual returns.  
IQS Universe includes approximately the largest 3000 stocks by market capitalization  
Sector definition is determined by Zacks Information Research

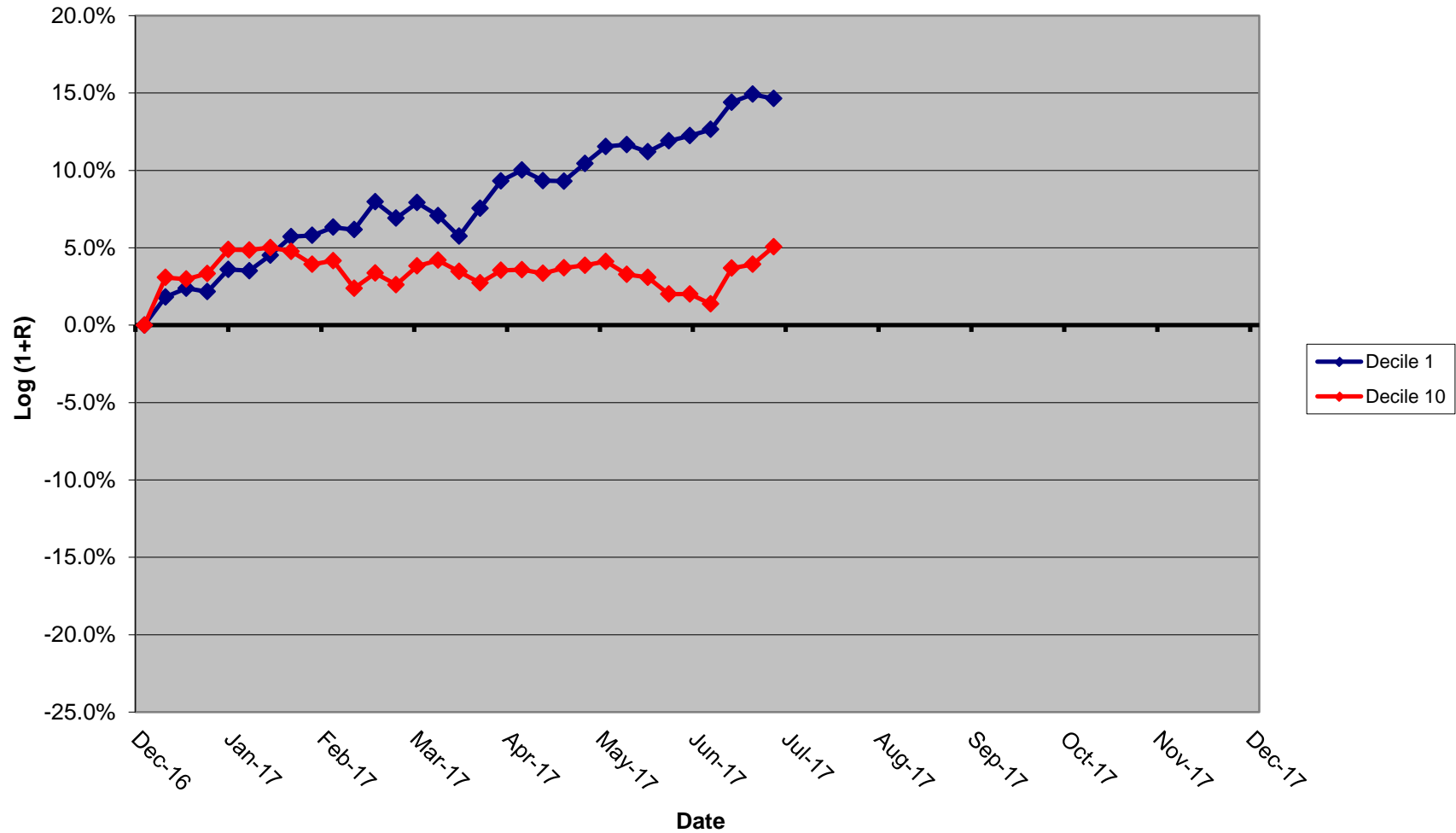
**Time Series of Excess Cumulative Return  
IQS Composite DFM Model  
IQS Universe - Decile 1 vs 10  
Year-to-Date 2017**



**Time Series of Excess Cumulative Return  
IQS Composite - Sector Neutral DFM Model  
IQS Universe - Decile 1 vs 10  
Year-to-Date 2017**

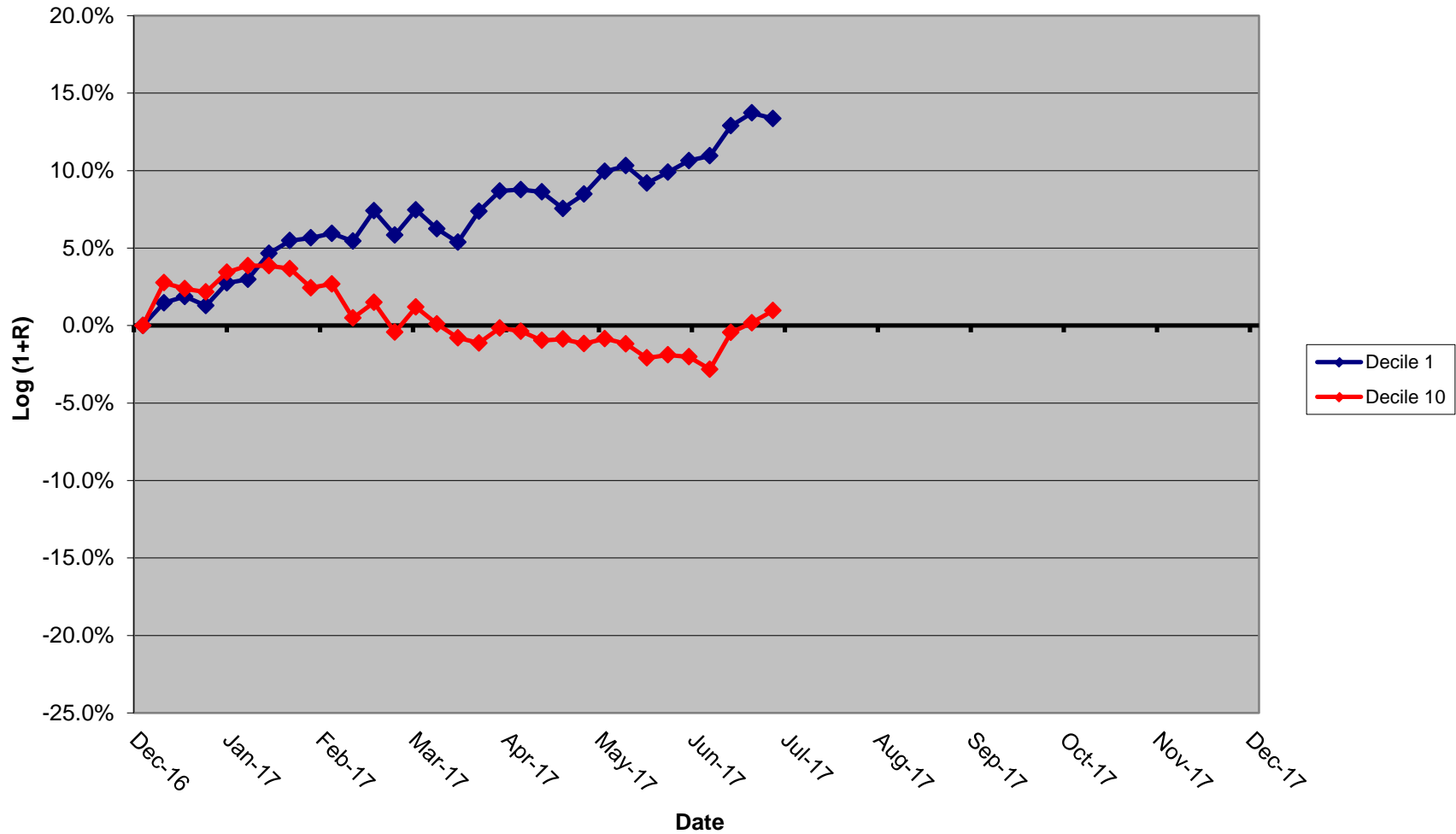


**Time Series of Cumulative Excess Return  
IQS Composite Model  
IQS Top 1000 Universe - Decile 1 vs 10  
Year-to-Date 2016**

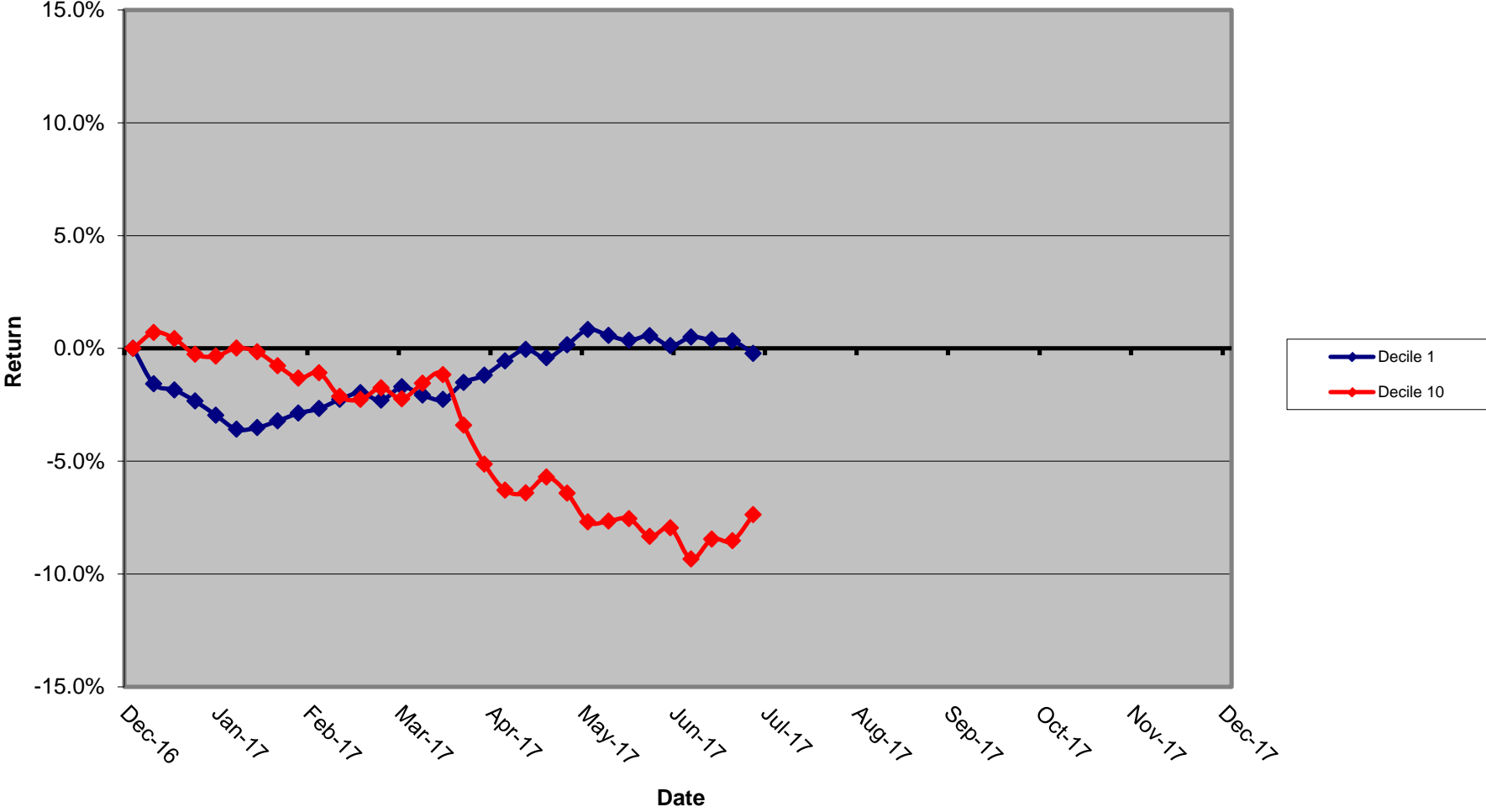




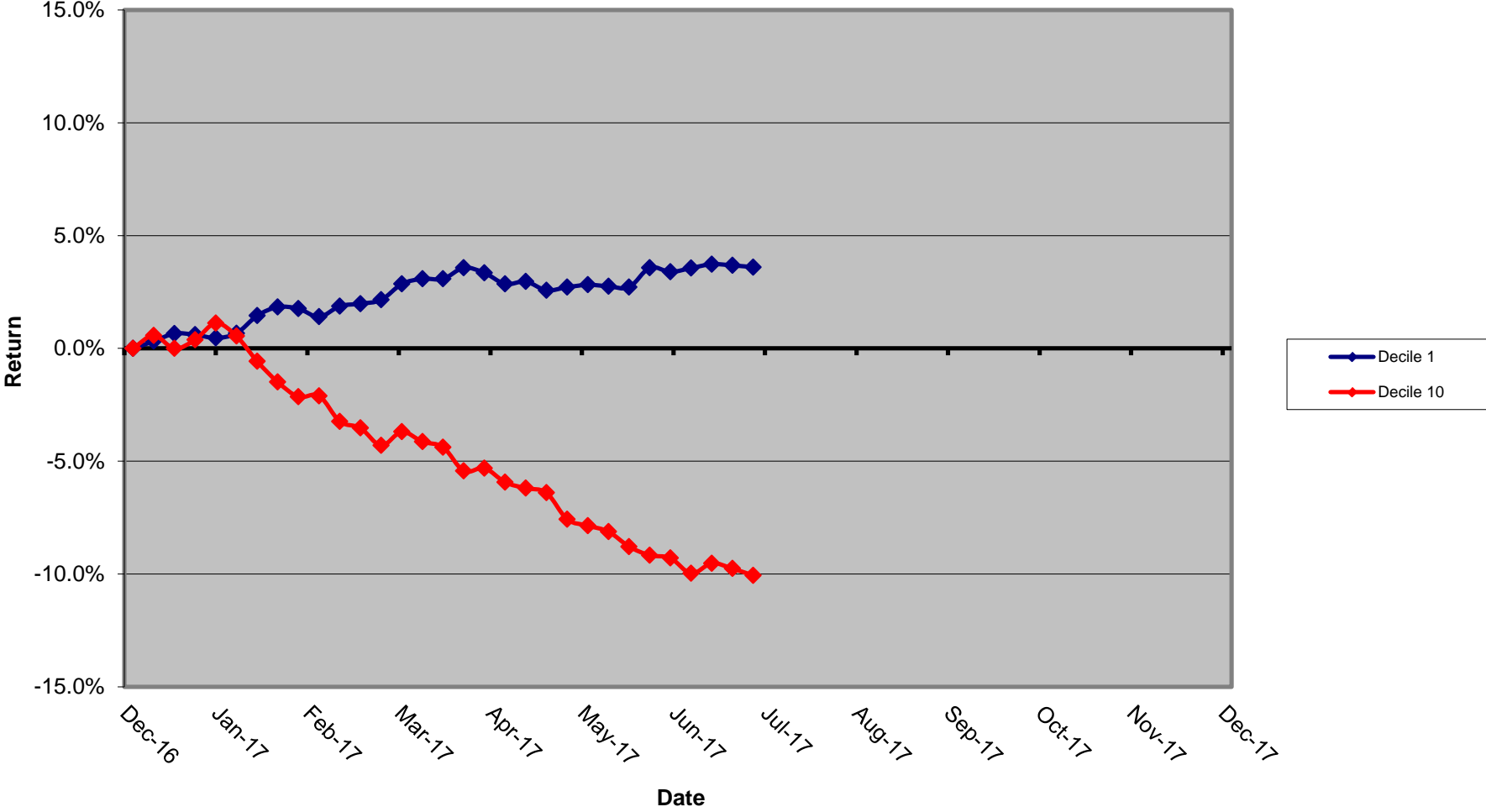
**Time Series of Cumulative Excess Return  
IQS Composite No Momentum Model  
IQS Universe - Decile 1 vs 10  
Year-to-Date 2016**



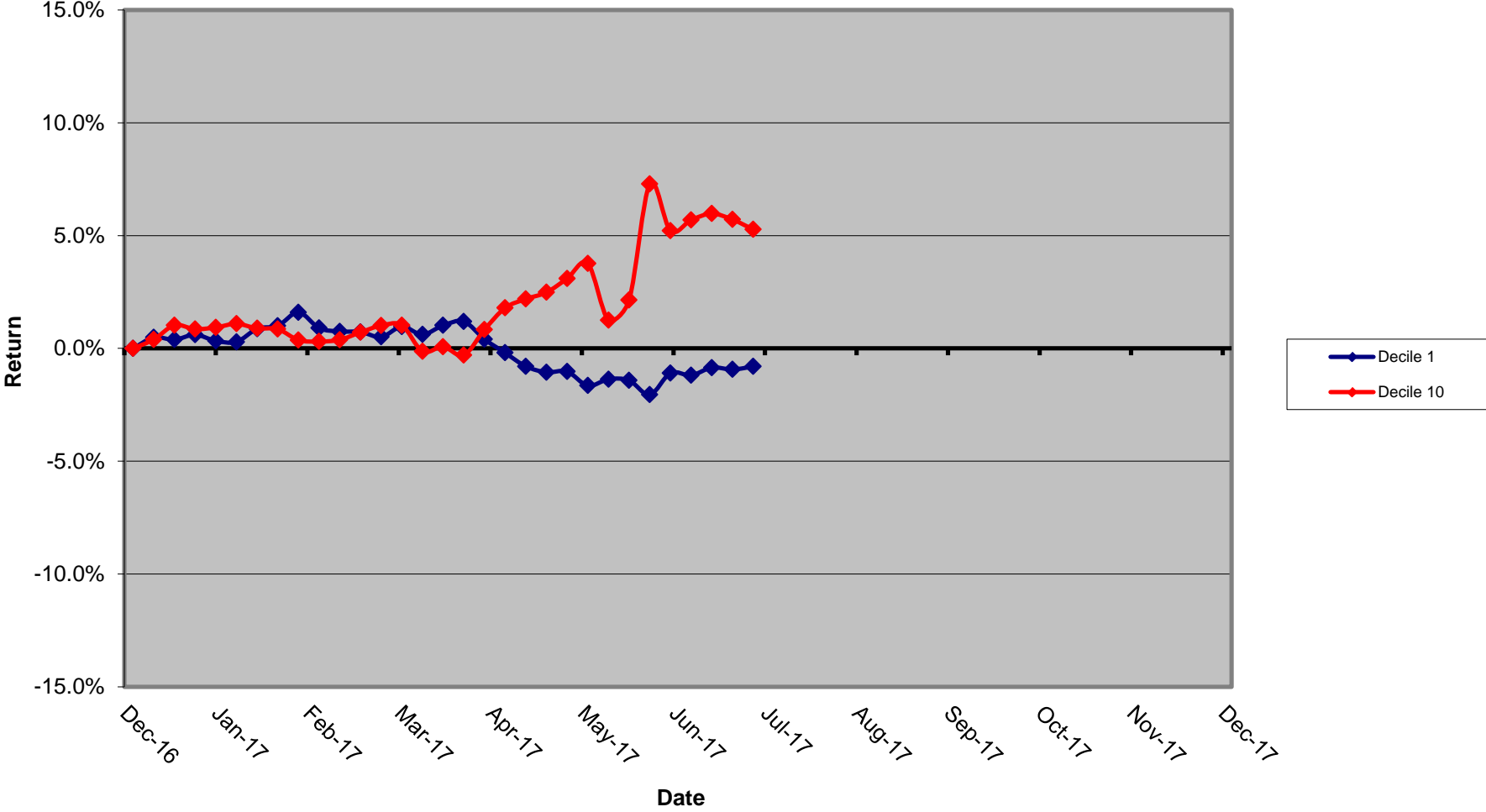
**Time Series of Excess Cumulative Return  
IQS Component - Balance Sheet  
IQS Universe - Decile 1 vs 10  
Year-to-Date 2017**



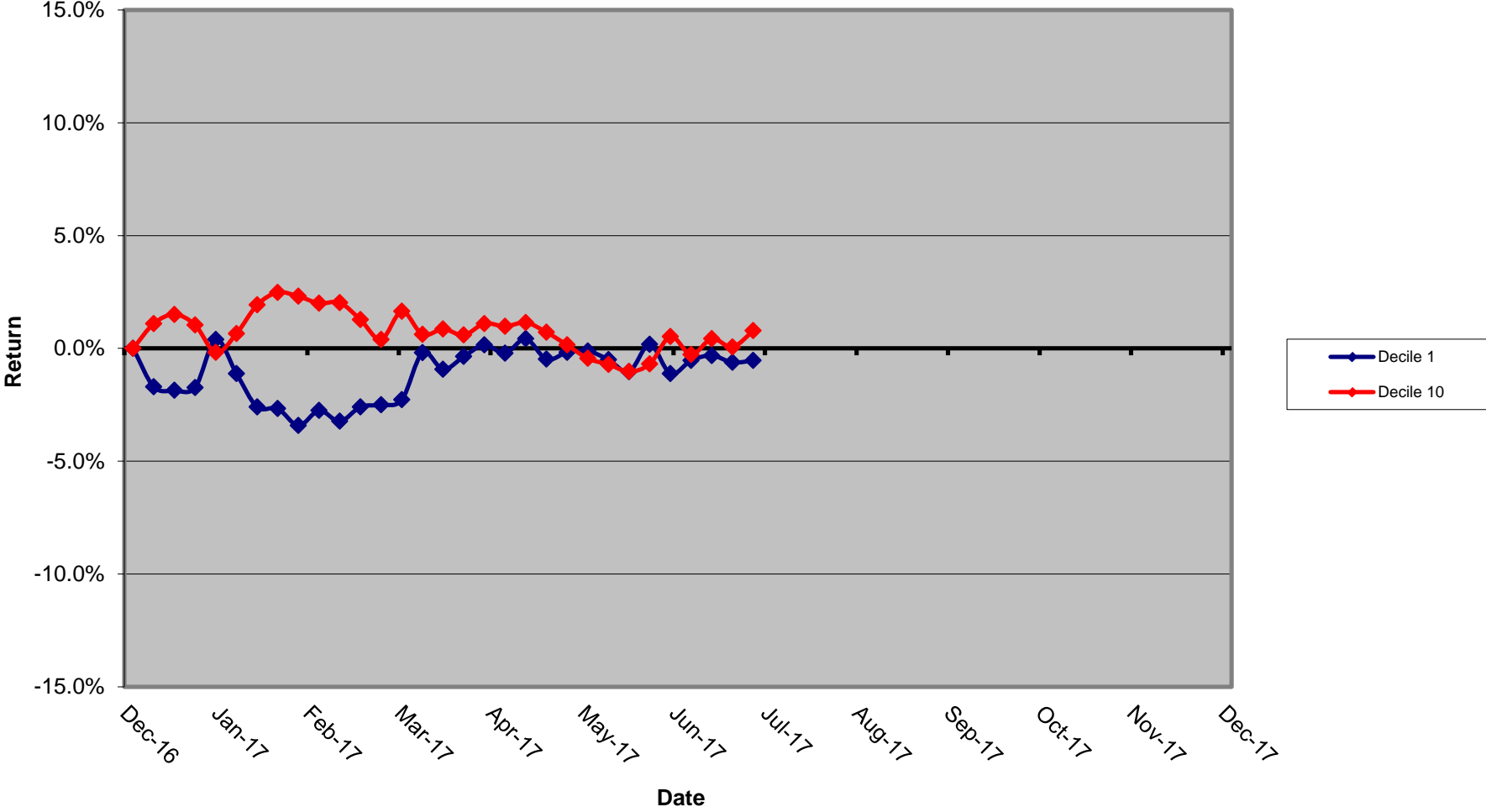
**Time Series of Excess Cumulative Return  
IQS Component - Improving Financials  
IQS Universe - Decile 1 vs 10  
Year-to-Date 2017**



**Time Series of Excess Cumulative Return  
IQS Component - Value  
IQS Universe - Decile 1 vs 10  
Year-to-Date 2017**



**Time Series of Excess Cumulative Return  
IQS Component - Momentum  
IQS Universe - Decile 1 vs 10  
Year-to-Date 2017**



**Time Series of Excess Cumulative Return  
IQS Component - Sentiment  
IQS Universe - Decile 1 vs 10  
Year-to-Date 2017**

