



IQS Research Brief

The New January Effect? What Does the Return for January tell us about the Year? And Other Statistical Facts

January 26, 2010

January Effect

According to Investopia.com, the January Effect is explained as “A general increase in stock prices during the month of January.” Rather simplistic and with negative returns during January 2008 and January 2009, and negative returns so far in January 2010, let’s stop referring to the January Effect as we know it.

Topic

In this IQS Research Brief, we want to find out the answer to the question – does the return for January set the tone for the return for the year? Is this a New January Effect? If January 2010 has a positive (negative) return, will the year have a positive (negative) return? If January turns out to be negative (as it is at the time this was written), will 2010 be a down year?

While we’re looking at the data, we’ll also point out various other anomalies.

Analysis

We used the Dow Jones Industrial Average (DJIA) as the proxy for the market. We acknowledge that the DJIA does not represent the broad US market, but does represent the media’s index. We suspect that the results would be similar for other indexes. Monthly and annual historical returns from 1929-2009 were used in the analysis.

Returns and Standard Deviations

With 81 years of data, we calculated the average returns by calendar month. Is there a pattern? Which month has the best return, the worst, the most volatile?

The three highest return months have been April, July and December, at roughly 1.4% on average, followed by January. Interestingly, January, April, and July are all the month after the calendar quarter end. October is the only month missing from this pattern with an average return of slightly below 0%. However, there have been several years where October had large negative returns (1987 -23%, 1929 -20%, 2008 -14%, 1932 -13%). If you remove these 4 extremely large negative returns (which, of course, you can’t just remove them), then October does have a pretty good positive return on average.

IQS Brief – The New January Effect?

The worst? We all remember the poor returns of October 1987 and October 2008, but the lowest return month on average is September at -1.4%. See Appendix A.

The most volatile? April, August and October, followed by September. The least volatile? December! See Appendix B.

Quarterly

Is there a return pattern by quarter? The best calendar quarter return is a tie between Q2 and Q4. Looking at Appendix C, you can see that while the returns are about the same the volatility is much higher during Q2 than Q4. Q3 gives you the worst return per standard deviation historically.

Directional Agreement

We define directional agreement as the following. If the return for a month is positive and the year is positive then that month has directional agreement. If the month and the year are both negative, then that month has directional agreement. Appendix D shows directional agreement. It is clear that January has the largest directional agreement at 78%, followed by December at 69%. July and October have the lowest agreement at 54%. The average monthly agreement is 62%.

Let's looking a bit more closely at January – Appendix E. Of the 81 monthly observations, January had directional agreement in 63 of the months (upper right and lower left quadrants of the graph). This means that in 63 of the last 81 years, whatever direction the return was for January was also the direction of the return for the full year. In the past 81 years, January had a positive return in 53 of those years with the market up 44 times the same year resulting in 83% directional agreement. January had a negative return in only 28 years with the market also negative for the year 19 times resulting in a 68% directional agreement. The lower right and upper left quadrants of the graph shows the disagreements. You can see that there are much fewer observations in the disagreement quadrants of the graph.

2009 is an example of a large negative return for January (-8%) with a solid positive return for the year (18%). This is not usual. In fact, January 2009 was the largest negative return for January from 1929-2009.

What about February? When January is negative (28 years), the average return in February was -.8%, while when January is positive (53 years), the average return in February was .4%. See Appendix F for a breakdown of returns by month when January is positive or negative. It appears that the first half of the calendar year (February-June) follows the trend of January to some degree, while the second half (July-December) is independent of January.

IQS Brief – The New January Effect?

Summary

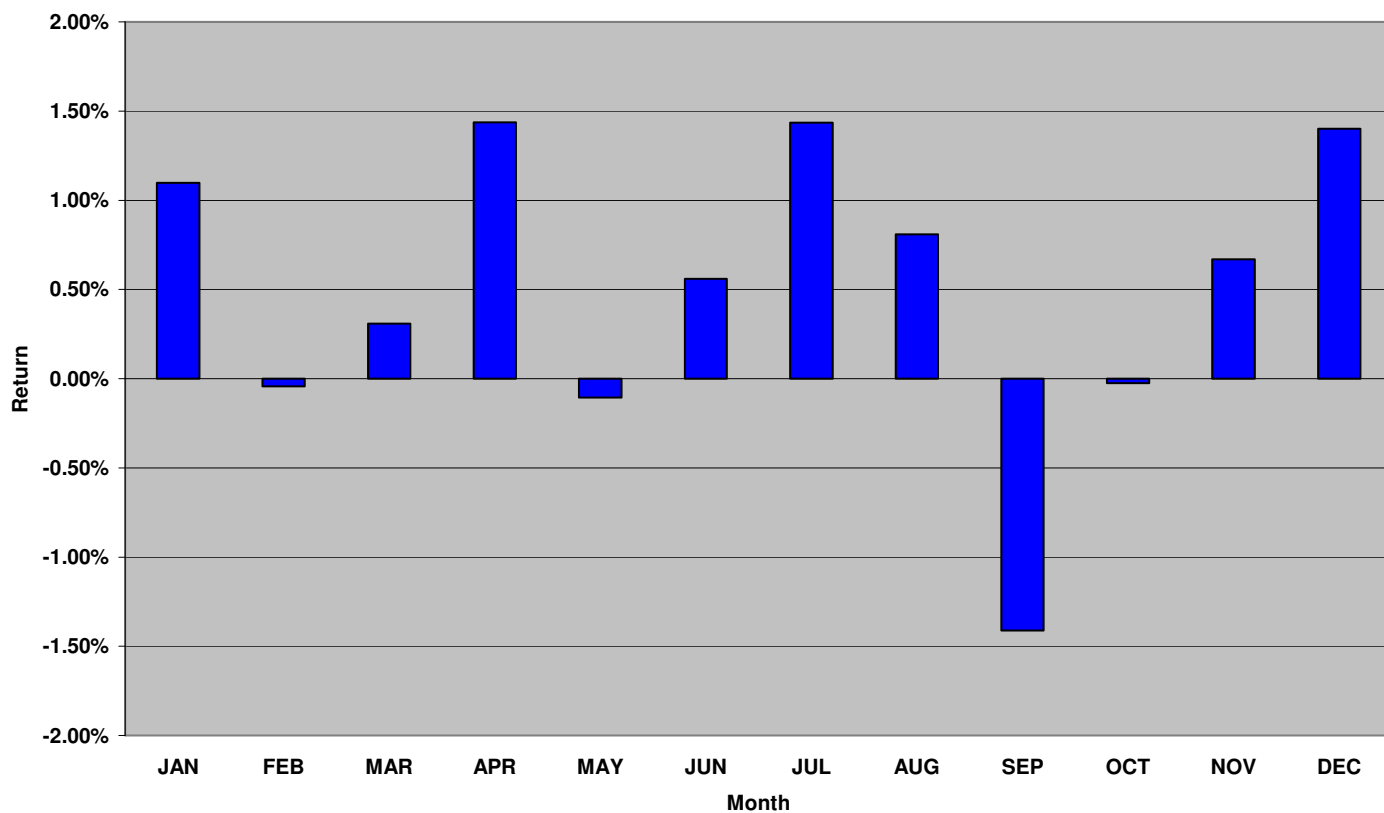
January does seem to set the tone for February and for the entire year. The old January Effect where the returns for January are positive may be an anomaly that doesn't exist anymore. Based on the above data, a negative return in January doesn't guarantee a negative full year, but does make it more likely at 68%. If January does turn out to positive, then it is much more likely that 2010 will also be positive at 83% likelihood historically.

About IQS

We are an independent equity research company that provides dynamic-weighted models to institutional managers and hedge funds. We also are available to solve, build, or analyze portfolio construction, analytics or other special project needs. Please contact us at ian@innovativequant.com for more information. Visit our website at www.innovativequant.com and blog at <http://iqsquant.blogspot.com/>

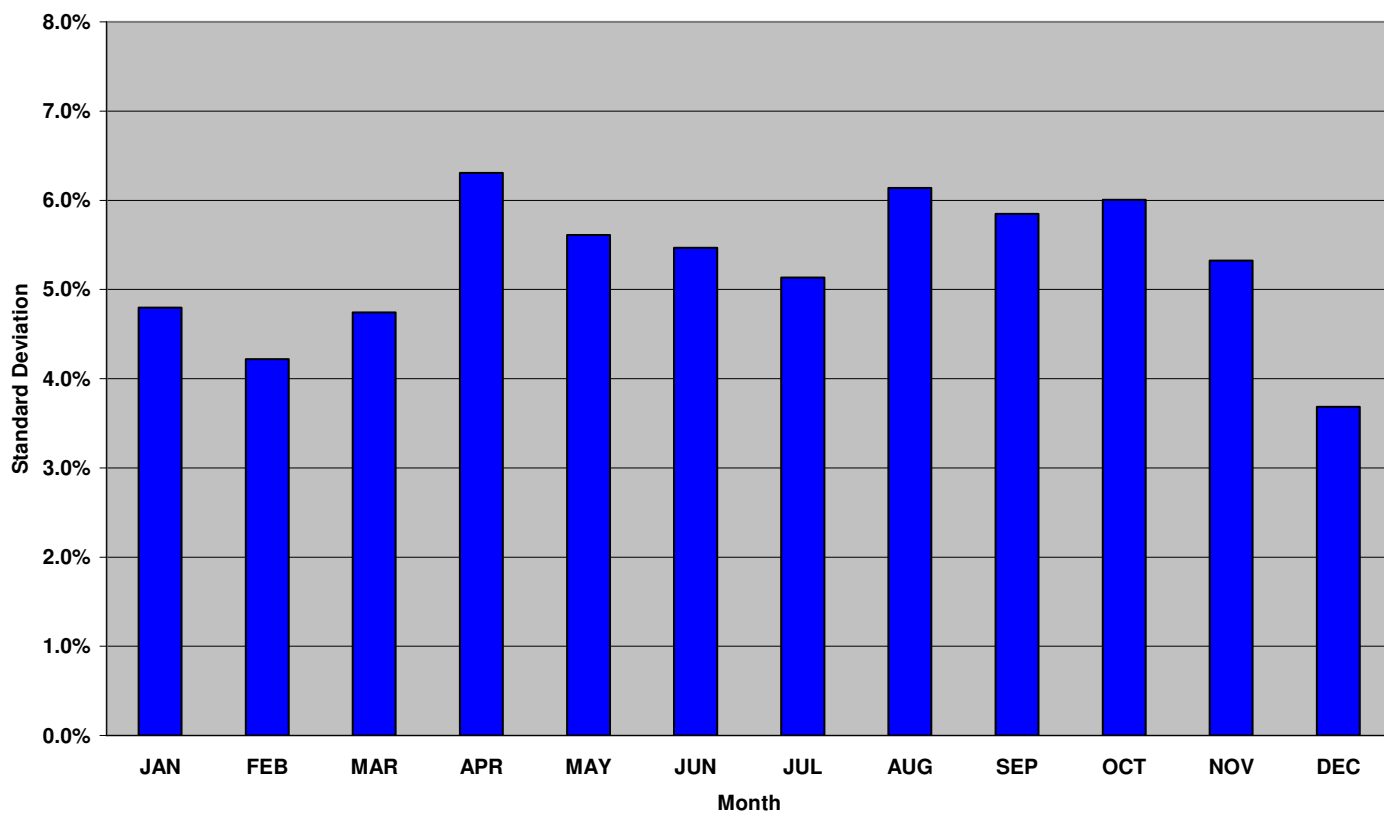
Appendix A:

Average DJIA Return by Month
Returns Averaged over 1929-2009



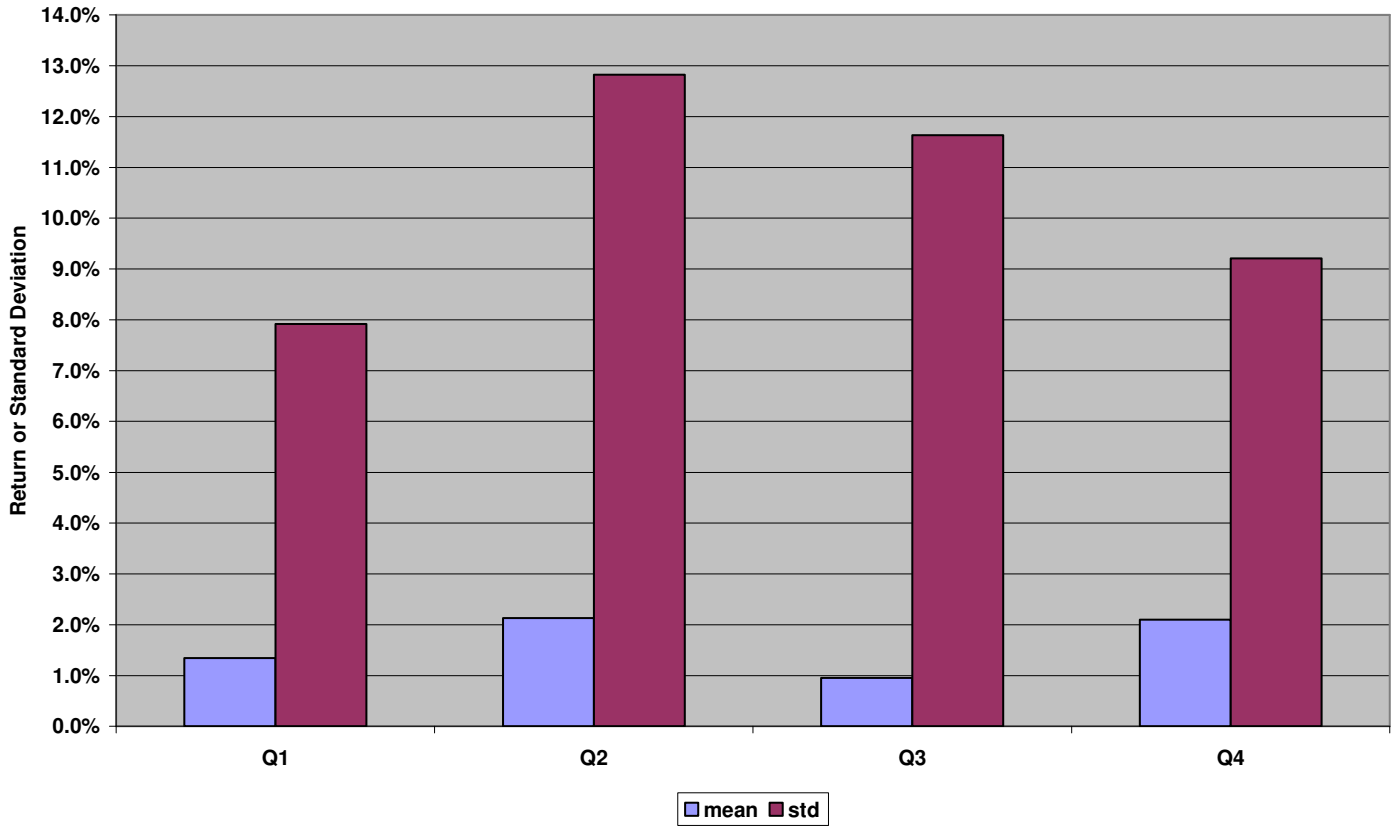
Appendix B:

DJIA Standard Deviation by Month
Returns from 1929-2009



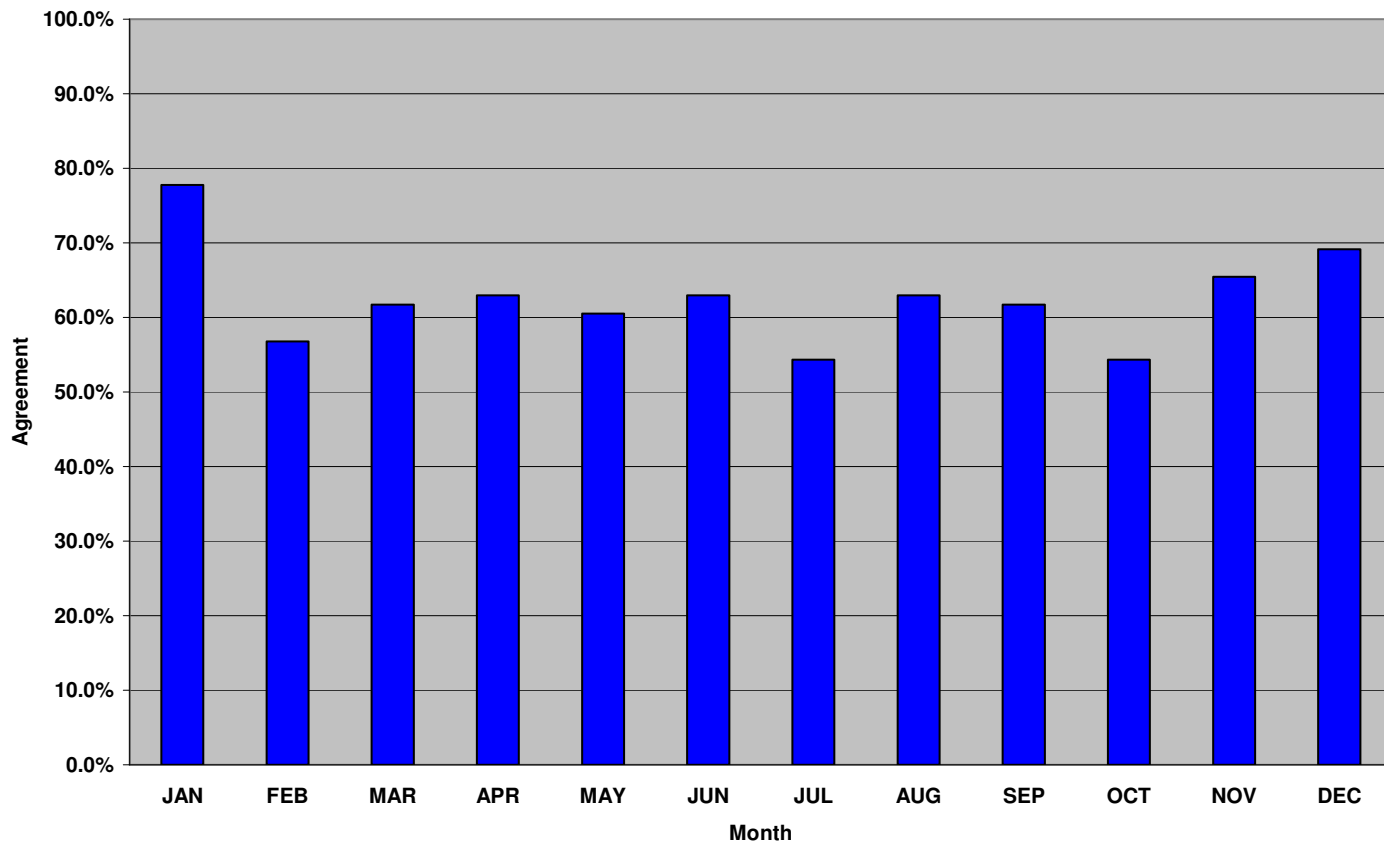
Appendix C:

Average DJIA Return/Standard Deviation by Calendar Quarter
Returns Averaged over 1929-2009



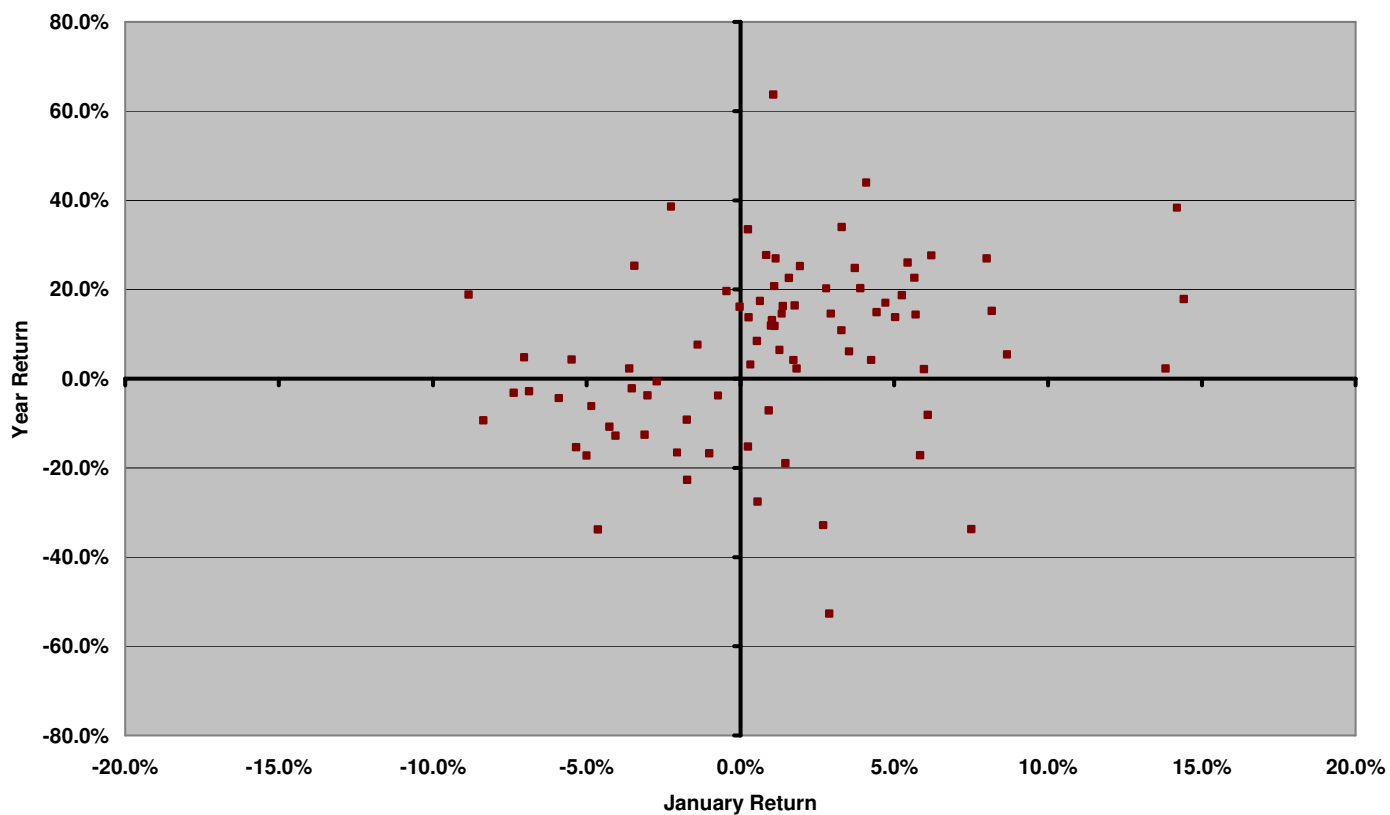
Appendix D:

DJIA Directional Agreement - Month vs Year



Appendix E:

January Returns vs Full Year Returns
Returns from 1929-2009



Appendix F:

Average DJIA Return by Month
Segmented for Positive/Negative January Years
Returns Averaged over 1929-2009

