

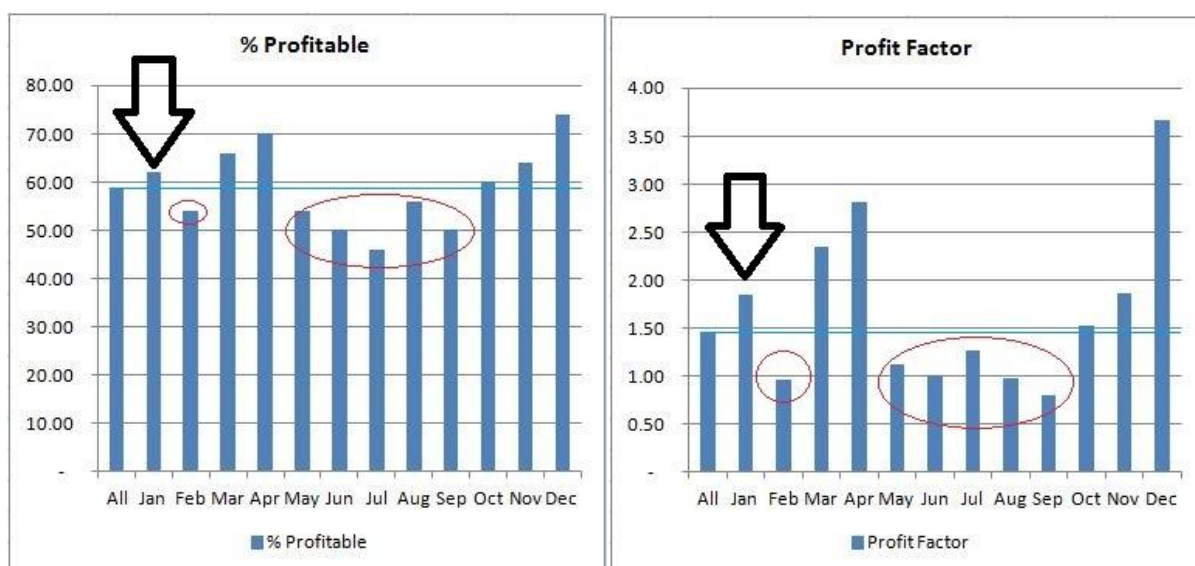


## The January Effect

### Introduction

The January Effect is a seasonal influence understood to positively affect stock prices during the first four weeks of the year. The effect is believed to be driven by investors selling in December to generate tax losses to offset capital gains. These same investors then reinvest in January to restock their portfolio, thereby driving prices up.

The most basic interpretation of the theory – which suggests that January is seasonally more bullish than most months – has certainly not shown to be true over the past 50 years, at least not for the large-caps. Below are charts showing the relative performance of each month of the year for the S&P500 from 1964 to 2013. As we can see, the month of January has historically been *less* profitable than the month of December, and only slightly more profitable than the annual monthly mean.



The January Effect, first theorized in 1942, is believed to affect small-cap stocks more than large-cap stocks. This is because small-caps are owned by a higher proportion of individual investors, and these are possibly more likely to be selling in December and buying again in January. So for the remainder of this study we will define the January Effect as the *relative outperformance of small-caps vs large-caps* during the months of December and/or January.

### Analysis

We will compare the performance of small-caps to large-caps from 1988 to 2014, using the Russell2000 Index (RUT) and the S&P500 Index (SPX) respectively.

Below is a table summarizing the relative outperformance of the Russell2000 over the S&P500 for the two halves of both December and January. Detailed results are shown in the Appendix.

Period	Years	Russell Outperformance			
		Years	%	Average	Cumulative
Dec 1st to Dec 15th	1988-2013	14 / 26	54%	0.07%	1.74%
Dec 15th to Dec 31st	1988-2013	20 / 26	77%	1.48%	38.41%
Jan 1st to Jan 15th	1988-2014	13 / 27	48%	-0.07%	-2.01%
Jan 15th to Jan 31st	1988-2014	15 / 27	56%	0.27%	7.33%

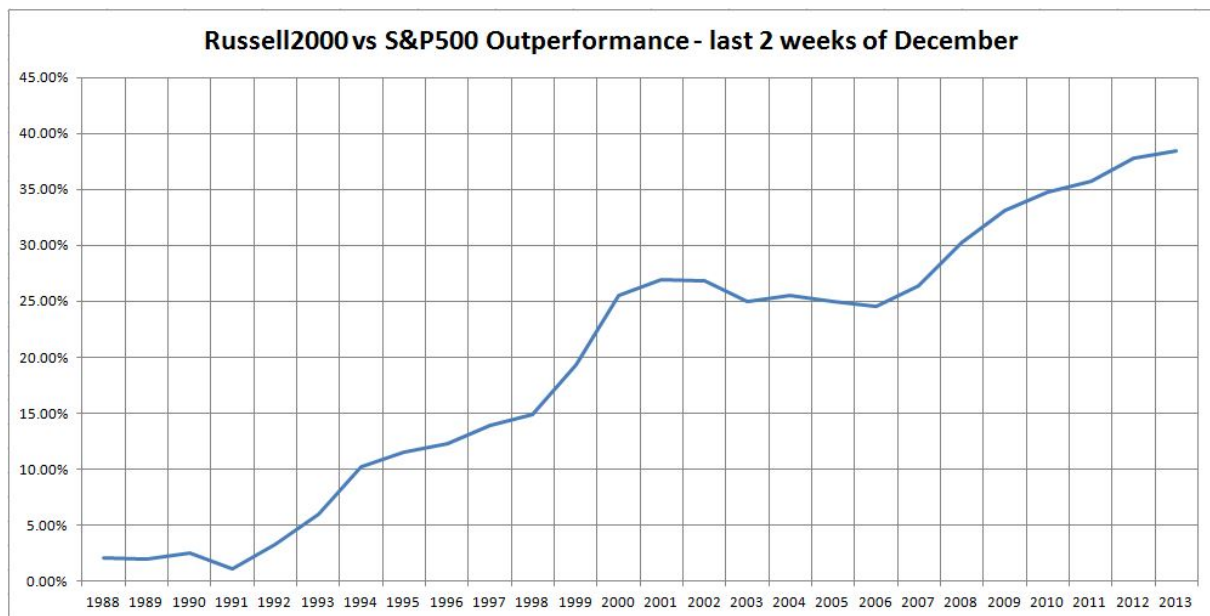


The data shows that for the first half of December the performance of the Russell and the S&P500 has historically been fairly similar. During the second half of December however, the Russell appears to have notably outperformed the S&P500, beating the large-cap index 20 out of 26 years. What is particularly impressive is the average annual outperformance of 1.48%, achieved over a mere two week period.

The month of January, which was the original focus of this study, is somewhat more mixed. During the first two weeks of January the Russell very mildly underperformed the S&P500, while during the second half of January the Russell outperformed the S&P500, albeit not significantly.

The above data certainly does confirm the notion that during certain times of the year small-caps have a tendency to outperform large-caps. However, the results also show that the bulk of the January Effect is actually felt in December! Why this is the case is not clear. Maybe the widespread use of tax-sheltered retirement plans have rendered the end-of-year fire sale (and start-of-year buying frenzy) less prevalent. Whatever the reason, the January effect certainly carries its name poorly.

As we have seen, the results that have proven most compelling are those for Dec 15<sup>th</sup>- Dec 31<sup>st</sup>. During that two week period the Russell historically outperformed the S&P500 77% of the time. Had an arbitrage-type trade (long Russell, short S&P500) been taken every year from 1988 to 2013, the resulting performance chart would have appeared as follows:



## Summary

A popular misconception among traders is that the January Effect refers to an abnormal strength in overall market averages at the beginning of the year. But January is actually a fairly "average" month, arguably slightly bullish but - unlike say December or April - not notably so.

The more accurate definition of the January Effect refers to the relative strength of small-cap stocks over large-caps. And as we have seen here, this effect is felt only mildly in January. It is however felt very markedly during the last two weeks of December. So what used to be a popular market-timing strategy seems to have lost its edge. Or rather, the edge is still there, but simply not where one would expect it to be.

As for 2014, the S&P500 performance during the last 2 weeks of the year was 2.69%, while the performance of the Russell2000 was ... 4.51%. So the "December Effect" strikes again.



## APPENDIX

### December 1 to December 15th

	SPX	RUT	Delta
1988	0.60%	0.81%	0.21%
1989	1.43%	-0.56%	-1.99%
1990	1.42%	2.09%	0.67%
1991	2.50%	0.64%	-1.86%
1992	0.34%	0.54%	0.20%
1993	0.24%	-0.21%	-0.45%
1994	0.31%	-2.61%	-2.92%
1995	1.91%	1.28%	-0.63%
1996	-3.75%	0.02%	3.77%
1997	-0.21%	-1.70%	-1.49%
1998	-1.93%	-2.47%	-0.54%
1999	1.03%	1.91%	0.88%
2000	1.98%	3.56%	1.59%
2001	-1.44%	2.28%	3.71%
2002	-5.00%	-4.52%	0.48%
2003	1.51%	0.20%	-1.31%
2004	2.52%	1.54%	-0.98%
2005	1.86%	1.95%	0.09%
2006	1.77%	1.19%	-0.58%
2007	-0.99%	-2.20%	-1.22%
2008	-0.85%	0.56%	1.41%
2009	1.39%	4.59%	3.21%
2010	4.63%	4.91%	0.27%
2011	-2.79%	-2.51%	0.28%
2012	-0.20%	-0.09%	0.11%
2013	-1.61%	-2.78%	-1.17%
	AVG		0.07%
	CUM		1.74%

Entry on the open of the 1<sup>st</sup> trading day of December  
Exit on the open of the 15<sup>th</sup> of Dec (or next day if 15<sup>th</sup> falls on a w-e)

### January 1st to January 15th

	SPX	RUT	Delta
1988	-0.44%	1.12%	1.56%
1989	2.21%	1.74%	-0.47%
1990	-3.81%	-2.34%	1.47%
1991	-5.36%	-5.15%	0.21%
1992	0.82%	6.52%	5.70%
1993	0.04%	1.25%	1.21%
1994	1.80%	1.04%	-0.76%
1995	1.47%	-0.16%	-1.64%
1996	-2.29%	-3.43%	-1.14%
1997	3.80%	1.35%	-2.44%
1998	-1.29%	-3.46%	-2.17%
1999	-1.39%	-0.44%	0.95%
2000	-0.28%	0.55%	0.83%
2001	-0.15%	0.45%	0.60%
2002	-0.84%	-1.12%	-0.28%
2003	5.89%	4.01%	-1.88%
2004	1.67%	5.25%	3.57%
2005	-2.26%	-5.23%	-2.97%
2006	3.15%	5.23%	2.08%
2007	0.90%	0.76%	-0.14%
2008	-3.82%	-7.64%	-3.82%
2009	-6.76%	-9.26%	-2.51%
2010	2.79%	3.10%	0.31%
2011	2.83%	1.77%	-1.06%
2012	2.49%	2.44%	-0.05%
2013	3.12%	3.16%	0.04%
2014	-0.29%	0.47%	0.76%
	AVG		-0.07%
	CUM		-2.01%

Entry on the open of the 1<sup>st</sup> trading day of January  
Exit on the open of the 15<sup>th</sup> of Jan (or next day if 15<sup>th</sup> falls on a weekend)

### December 15th to December 31st

	SPX	RUT	Delta
1988	0.87%	2.93%	2.05%
1989	0.69%	0.63%	-0.06%
1990	1.03%	1.55%	0.52%
1991	8.47%	7.02%	-1.45%
1992	0.67%	2.81%	2.15%
1993	0.75%	3.48%	2.73%
1994	0.93%	5.25%	4.31%
1995	-0.16%	1.10%	1.26%
1996	1.66%	2.38%	0.72%
1997	1.79%	3.40%	1.62%
1998	7.71%	8.77%	1.06%
1999	4.71%	9.08%	4.37%
2000	-1.54%	4.71%	6.25%
2001	2.23%	3.65%	1.43%
2002	-1.09%	-1.26%	-0.17%
2003	3.52%	1.70%	-1.82%
2004	0.71%	1.25%	0.54%
2005	-1.92%	-2.50%	-0.58%
2006	-0.52%	-0.85%	-0.33%
2007	0.20%	1.95%	1.75%
2008	2.49%	6.47%	3.98%
2009	0.22%	3.01%	2.79%
2010	1.29%	2.92%	1.63%
2011	3.86%	4.83%	0.98%
2012	0.89%	2.93%	2.04%
2013	3.85%	4.49%	0.65%
	AVG		1.48%
	CUM		38.41%

Entry on the open of Dec 15<sup>th</sup> (or next day if 15<sup>th</sup> falls on a w-e)  
Exit on the open of the 1<sup>st</sup> trading day of January

### January 15th to January 31st

	SPX	RUT	Delta
1988	4.48%	2.84%	-1.64%
1989	4.79%	2.61%	-2.18%
1990	-3.19%	-6.75%	-3.56%
1991	10.05%	14.97%	4.92%
1992	-2.77%	1.39%	4.17%
1993	0.67%	1.92%	1.25%
1994	1.41%	2.01%	0.60%
1995	0.95%	-1.24%	-2.20%
1996	5.68%	3.36%	-2.33%
1997	2.25%	0.53%	-1.72%
1998	2.33%	1.93%	-0.41%
1999	5.56%	1.69%	-3.87%
2000	-4.82%	-2.23%	2.59%
2001	3.62%	4.65%	1.03%
2002	-0.72%	0.02%	0.74%
2003	-8.15%	-6.60%	1.56%
2004	0.05%	-0.91%	-0.97%
2005	-0.27%	1.06%	1.33%
2006	-0.58%	3.50%	4.08%
2007	0.50%	0.97%	0.47%
2008	-2.36%	1.06%	3.42%
2009	-2.24%	-2.65%	-0.41%
2010	-6.43%	-7.00%	-0.57%
2011	-0.32%	-2.76%	-2.44%
2012	1.72%	3.63%	1.91%
2013	1.87%	3.35%	1.49%
2014	-3.14%	-3.08%	0.06%
	AVG		0.27%
	CUM		7.33%

Entry on the open of the 15<sup>th</sup> of Jan (or next day if 15<sup>th</sup> falls on a weekend)  
Exit on the open of the 1<sup>st</sup> trading day of Feb