

Research Brief: Exploiting the January Effect Examining Variations in Trend Following Strategies

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At the beginning of every year, one topic frequented by many institutional investors is the January Effect. Investors often point to January as the most pronounced example of seasonality, where longer term trend following strategies suddenly underperform and short-term reversal and mean-reversion dominate.

But which strategies have performed well in January and is this performance sustainable? With several studies in the Literature documenting the January effect on company capitalization, we decided to undertake our own review using our S&P Capital IQ Alpha Factor Library (AFL), to examine various strategies' effectiveness during the month. We then drill into which momentum strategies have the greatest positive and negative divergences within the month of January.

Regular readers of our research know the Alpha Factor Library is our repository of over 500+ investment strategies that allow for rapid historical analysis. Within the tool, we create several commonly used strategies for easy analysis: Valuation, Analyst Expectations, Growth, Capital Efficiency, Earnings Quality, Price Momentum, Volatility and Size. In this study, we analyze each strategy over a one-month hold, over the period January 1987 to November 2012. The spreads shown in Table 1 are the sector neutral returns associated with purchasing the top quintile to each strategy.

Over our study period, only Size and Volatility show statistically significant differences (at the 90% confidence level) in performance during the month of January. Indeed, one could argue that Size and Volatility are closely related, and in some sense, proxies for each other.

Table 1 – Strategy Performance Differences in the Month of January

Russell 2000 Universe, 1/1987 – 11/2012

	Analyst Expectation	Capital Efficiency	Earnings Quality	Historical Growth	Price Momentum	Size	Valuation	Volatility
Jan Mean 1 Mo Return	1.75%	1.46%	2.08%	2.36%	2.72%	3.43%	2.65%	3.94%
Non Jan Mean 1 Month Return	0.95%	1.27%	1.13%	1.10%	1.05%	0.10%	1.02%	-0.27%
Jan Std of Returns	0.42%	0.31%	0.40%	0.47%	0.39%	0.94%	0.43%	1.47%
Non Jan Std of Returns	0.42%	0.28%	0.31%	0.38%	0.40%	0.49%	0.37%	0.84%
Jan Count	26	26	26	26	26	26	26	26
Non Jan Count	286	286	286	286	286	286	286	286
2 Tailed T-Test of Mean						*		*

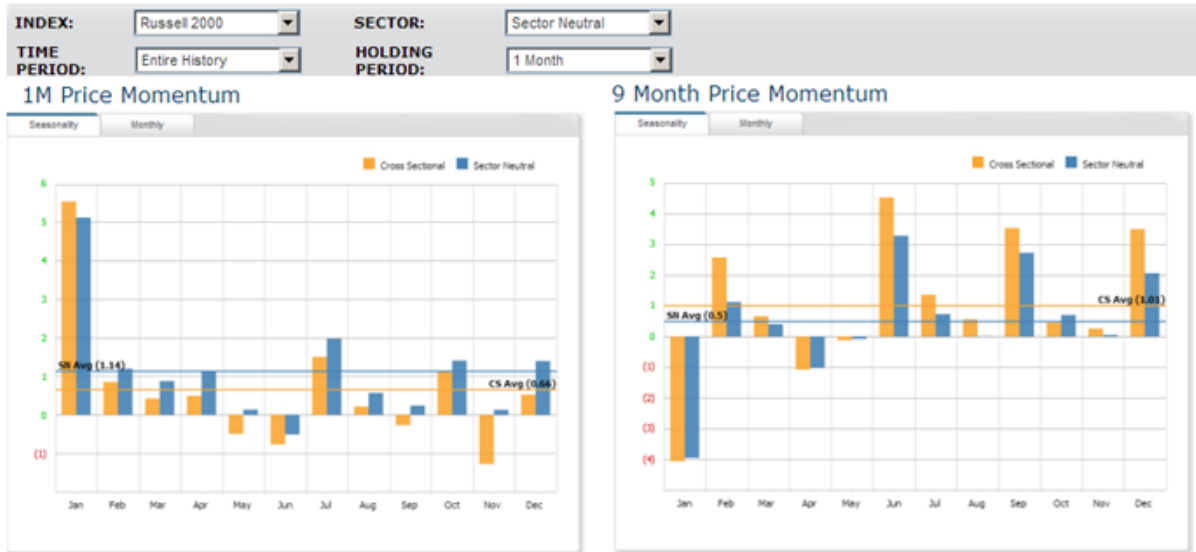
Source: S&P Capital IQ Quantamental Research

The above analysis masks the seasonal variation in Trend Following strategies as it combines slower moving signals with faster moving signals. In Table 2 we highlight the two best and worst price momentum strategies that exhibit significantly divergent performance in January. The last column of Table 2 shows that using a two-tailed T-Test of the means, assuming unequal variances, all 4 strategies have confidence levels of 94% or greater.

In short, we observe that the short term momentum signals which capture reversal do exceptionally well in the month of January. A screen shot from the Alpha Factor Library illustrates that the performance of the short-term signals are multiples stronger in January than the remaining 11 months of the year (Chart 1 and Table 2).

By contrast, longer term trend strategies generally fail in the month of January, again due to the reversal evident during that month.

Chart 1 – 1-Month Price Momentum Compared with 9-Month Price Momentum
Russell 2000 Universe, 1/1987 – 11/2012



Source: S&P Capital IQ Quantamental Research

Table 2: Significant Divergence of Price Momentum Strategies Jan vs. Rest of Year
Russell 3000 Universe, 1/1987-11/2012

	Jan				Non Jan				Confidence-2 Tailed Test of the Mean
	<u>L-S Return</u>	<u>IC</u>	<u>Long Hit</u>		<u>L-S Return</u>	<u>IC</u>	<u>Long Hit</u>		
Best Jan Momentum Strategies									
1 Mo Price Momentum	4.63%	0.11 ***	85%	0.66%	** 0.01	51%		94%	
1 Mo High Low	5.91%	0.13 ***	85%	0.89%	** 0.03 ***	64%		98%	
Worst Jan Momentum Strategies									
52W High Low	-4.97%	* -0.09 ***	42%	0.86%	*** 0.03 ***	68%		96%	
9 Mo Price Momentum	-3.54%	* -0.06 *	62%	0.73%	*** 0.04 ***	63%		95%	

* Significant at 90%, ** Significant at 95%, *** Significant at the 99% Confidence Levels

Source: S&P Capital IQ Quantamental Research

To guard against finding spurious relationships (always a concern when one runs multiple backtests and picks a few out of many factors) we also report the performance of these factors in Europe using the BMI-EAFE universe (Table 3). The results are consistent with those observed in the US (i.e. there is statistically divergent performance between longer term and shorter term strategies in January).

Table 3: Significant Divergence of Price Momentum Strategies Jan vs. Rest of Year
 BMI EAFE Universe, 1/1994-11/2012

	Jan					Non-Jan					Confidence-2 Tailed Test of the Mean
	<u>L-S Return</u>		<u>IC</u>		<u>Long Hit</u>	<u>L-S Return</u>		<u>IC</u>		<u>Long Hit</u>	
Best Jan Momentum Strategies											
1 Mo Price Momentum	3.13%	**	0.07	***	79%	-0.26%		-0.01		57%	94%
1 Mo High Low	2.61%	***	0.09	***	79%	0.07%		0.01		43%	87%
Worst Jan Momentum Strategies											
52W High Low	1.03%		-0.06		32%	0.50%	*	0.04	***	63%	83%
9 Mo Price Momentum	-2.30%	**	-0.05		42%	0.70%	*	0.05	***	83%	23%

* Significant at 90%, ** Significant at 95%, *** Significant at the 99% Confidence Levels

Source: S&P Capital IQ Quantamental Research

Strategy Definitions (Q1 rank order):

- **1 Month Price Momentum:** The simple price return over the last 1 month. (Ascending)
- **1 Month High Low:** The ratio of the 1-Month high minus the current price to the current price, minus the 1-Month low. (Descending)
- **52 Week High Low:** The ratio of the 52-week high minus the current price to the current price, minus the 52-week low. (Ascending)
- **9 Month Price Momentum:** The simple price return over the last 9 months. (Descending)

Our Recent Research

December 2013: Do CEO and CFO Departures Matter? - The Signal Content of CEO and CFO Turnover

In October of this year, the US equity market was caught off guard with the seemingly sudden departure of Citibank CEO Vikram Pandit. While CEO departures are almost always headline news, CFO departures are not often accompanied with such recognition. We explore the impact of CEO and CFO departures and find consistent results in the US and the Developed World. CEO and CFO departures often signify a turning point in both the company's stock performance and the company's operating metrics.

November 2012: 11 Industries, 70 Alpha Signals -The Value of Industry-Specific Metrics

Investors routinely utilize industry intelligence in their investment process. But which information is relevant? Which is irrelevant? Our work yields some surprising results. This work complements our previous industry work on Retail [June 2011], Banking [Oct 2011], and Oil & Gas [May 2012]. Using S&P Capital IQ's Global Point-in-Time database and Compustat Industry-Specific data, we look at 70 factors in 11 industries: airlines, hospitals & facilities, managed healthcare, pharmaceuticals & biotechnology, homebuilding, insurance, telecommunications, utilities, gold miners, hotels & gaming, and restaurants

October 2012: Introducing S&P Capital IQ's Fundamental Canada Equity Risk Models

In July 2012 we released our regional risk models -- the Pan-Asia ex. Japan and the Pan-European Models, and updated versions of our US and Global Risk Models. Continuing in our efforts to provide a broad set of models to the asset management community, we are now releasing our second single country risk model -- Canada Fundamental Equity Risk Model.

September 2012: Factor Insight: Earnings Announcement Return – Is A Return Based Surprise Superior to an Earnings Based Surprise?

In this report, we compare the performance of SUE to one based on returns around a firm's earnings announcement date (EAR), proposed by Brandt et al (2008). We test both factors globally and find EAR dominates SUE in the U.S in the post Reg FD era on both a long-short return and top quintile excess return basis.

August 2012: Supply Chain Interactions Part 1: Industries Profiting from Lead-Lag Industry Relationships

Supply chain relationships are among the most visible and measurable, as revenues and costs shape the realized economic and financial performance of connected companies. Studies have shown that events within a supply chain do introduce these ripple effects, and theories incorporating this information into an investment process have garnered attention in recent years. We construct a map quantifying industry level connections along the supply chain. Using this map, and trailing industry returns as a proxy for industry level information shocks, we construct inter-industry momentum signals. These signals exhibit lead-lag relationships over short horizons, as the information shocks diffuse through the market and manifest themselves in the performance of related industries.

July 2012: Releasing S&P Capital IQ's Regional and Updated Global & US Equity Risk Models

Over the course of the last two years we released our Global and US Fundamental Equity Risk Models. As a natural progression we are releasing the first set of Regional Models – the Pan-Asia ex. Japan and the Pan-Europe Fundamental Equity Risk Models. This document will explain some of the salient aspects of the process adopted for constructing the Regional Models. We have also made additional improvements to our US & Global Equity Risk Models, and we shall explain these changes.

June 2012: Riding Industry Momentum – Enhancing the Residual Reversal Factor

Unlike individual stocks whose short-term returns tend to revert from one month to the next, industry portfolios exhibit return momentum even at a one-month horizon. We examine a strategy that takes advantage of both industry level momentum and stock level reversal. We combine our residual reversal factor with an industry momentum score, and find that the factor performance is greatly enhanced in the Russell 3000 universe between January 1987 and February 2012. The decile return spread is increased by 42 bps per month on average.

May 2012: The Oil & Gas Industry - Drilling for Alpha Using Global Point-in-Time Industry Data

In the oil & gas industry, a key determinant of value and future cash flow streams is the level of oil & gas reserves a firm holds. While most fundamental analysts/investors take into consideration a company's reserves in arriving at price targets, a majority of systematic driven processes do not. Using S&P Capital IQ's Global Point-in-Time database, we investigate the importance of reserve and production information provided by oil & gas companies.

May 2012: Case Study: S&P Capital IQ – The Platform for Investment Decisions

Ten years ago, AAPL traded just below \$12 and closed at \$583.98 on April 30, 2012. That is an average annual return of 48.1% over the period. During this same time the S&P 500 grew at an annual rate of only 2.65%. On April 2nd, Topeka Capital Markets initiated coverage of AAPL with a price target of \$1001. If achieved, this would make AAPL the first company to ever reach a \$1 trillion market cap. In this case study, we highlight some key S&P Capital IQ functionality in analyzing AAPL hypothetically reaching \$1000:

March 2012: Exploring Alpha from the Securities Lending Market – New Alpha Stemming from Improved Data

Numerous studies have examined the information content of short interest and found that heavily shorted stocks tend to underperform and liquid stocks with low levels of short interest subsequently outperform. Most studies relied on short interest data obtained directly from the exchanges available with a significant delay.

January 2012: S&P Capital IQ Stock Selection Model Review – Understanding the Drivers of Performance in 2011

In this report, we review the performance of S&P CIQ's four U.S stock selection models in 2011. These models were launched in January 2011, and this analysis will assess the underlying drivers of each model's performance over the last 12 months.

January 2012: Intelligent Estimates – A Superior Model of Earnings Surprise

As residual stakeholders, equity investors place enormous importance on a company's earnings. Analysts regularly forecast companies' future earnings. The prospects for a company's future earnings then become the basis for the price an investor will pay for a company's shares. Market participants follow sell side analysts' forecasts closely, identifying those analysts that demonstrate forecasting prowess and track those analysts' forecasts going forward.

December 2011: Factor Insight – Residual Reversal

November 2011: Research Brief: Return Correlation and Dispersion – All or Nothing

October 2011: The Banking Industry

September 2011: Methods in Dynamic Weighting

September 2011: Research Brief: Return Correlation and Dispersion - Tough Times for Active Managers

July 2011: Research Briefs- A Topical Digest of Investment Strategy Insights

June 2011: A Retail Industry Strategy: Does Industry Specific Data tell a different story?

May 2011: Introducing S&P Capital IQ's Global Fundamental Equity Risk Models

May 2011: Topical Papers That Caught Our Interest

April 2011: Can Dividend Policy Changes Yield Alpha?

April 2011: CQA Spring 2011 Conference Notes

March 2011: How Much Alpha is in Preliminary Data?

February 2011: Industry Insights – Biotechnology: FDA Approval Catalyst Strategy

January 2011: US Stock Selection Models Introduction

January 2011: Variations on Minimum Variance

January 2011: Interesting and Influential Papers We Read in 2010

November 2010: Is your Bank Under Stress? Introducing our Dynamic Bank Model

October 2010: Getting the Most from Point-in-Time Data

October 2010: Another Brick in the Wall: The Historic Failure of Price Momentum

July 2010: Introducing S&P Capital IQ's Fundamental US Equity Risk Model

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