

Inspirational Papers on Innovative Topics

Asset Allocation, Insider Trading, & Event Studies

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Inspiration drives innovation. The writings of Plutarch inspired Shakespeare, Galapagos finches inspired Darwin, and the German Autobahn inspired Eisenhower, but what inspires investment researchers to develop the next innovations for investors? When we get a new investment idea, we seek out literature on that topic to inspire us to bring the idea to fruition. This literature can help to further develop our own thoughts, polish up and expand on our priors, and avoid the pitfalls experienced by earlier researchers. Inspiration from academia enhances our ability to provide innovative solutions for our clients.

In this piece we gathered a number of inspirational articles that we recently read on three topics of particular interest to ourselves and our clients – asset allocation, insider trading, and event studies. The academic and practitioner literature on each of these topics is extensive, so we have taken the liberty to provide a selection of the pieces that we found to be the most interesting and inspirational for our further innovations. For each article we provide links to the article, the abstracts, and a brief discussion on why the article was chosen and how it could be useful to us and fellow practitioners¹. We hope that as you make your way through your reading list on the beach this summer, these papers provide you with the inspiration for innovative investment thought.

¹ The Abstracts which are made available come directly from the source and are the work of individual authors and do not necessarily represent the view of S&P Capital IQ or any of its affiliates. The CIQ Analyst Notes are based on our own analysis and review.

1. Asset Allocation

The Trend is our friend: Risk Parity, Momentum and Trend Following in Global Asset Allocation – Andrew Clare, James Seaton, Peter N. Smith and Stephen Thomas

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2126478

Abstract:

We examine the effectiveness of applying a trend following methodology to global asset allocation between equities, bonds, commodities and real estate. The application of trend following offers a substantial improvement in risk-adjusted performance compared to traditional buy-and-hold portfolios. We also find it to be a superior method of asset allocation than risk parity. Momentum and trend following have often been used interchangeably although the former is a relative concept and the latter absolute. By combining the two we find that one can achieve the higher return levels associated with momentum portfolios but with much reduced volatility and draw-downs due to trend following. We observe that a flexible asset allocation strategy that allocates capital to the best performing instruments irrespective of asset class enhances this further.

CIQ Analyst Notes:

- This paper extends previous work on momentum and trend following to a multi-asset class framework.
- The authors demonstrate that trend following alone improves risk adjusted returns over a buy-and-hold portfolio with equal weights in five asset classes and also over a multi-asset class portfolio constructed using risk parity.
- They also show that risk-adjusted performance of a pure risk-parity strategy improves when a trend following strategy is applied as an overlay.
- Applying a trend filter to an asset allocation strategy based on volatility adjusted momentum provided the best risk-adjusted performance, and this result was robust when controlled for known risk factors.

Generalized Momentum and Flexible Asset Allocation (FAA): An Heuristic Approach – Wouter J. Keller and Hugo S. Van Putten

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2193735

Abstract:

In this paper we extend the timeseries momentum [or trendfollowing] model towards a generalized momentum model, called Flexible Asset Allocation [FAA]. This is done by adding new momentum factors to the traditional momentum factor R based on the relative returns among assets. These new factors are called Absolute momentum [A], Volatility momentum [V] and Correlation momentum [C]. Each asset is ranked on each of the four factors R, A, V and C. By using a linearised representation of a loss function representing risk/return, we are able to arrive at simple closed form solutions for our flexible asset allocation strategy based on these four factors.

We demonstrate the generalized momentum model by using a 7 asset portfolio model, which we backtest from 1998-2012, both in- and out-of-sample.

CIQ Analyst Notes:

- Asset classes in the paper are defined using 7 index funds representing US & global equities, US bonds, cash, commodities, and REITs.
- The authors modify Faber’s TAA model [which favors assets trading above their 10-month moving average with positive 4-month momentum] by including relative momentum, absolute momentum, volatility momentum, and correlation momentum for each asset class in a linear ranking function to create a 3 fund equal-weighted portfolio every month, replacing funds with negative 4-month return momentum with cash.
- This flexible asset allocation portfolio generates significantly higher returns than the benchmark portfolio.
- Robustness checks performed in the paper, such as optimizing the lookbacks, changing the weights and number of assets, and out-of-sample testing confirm the results.
- This asset allocation strategy can be easily applied to other asset allocation models simply by replacing the selected funds in the paper with custom portfolios.

A Framework for Examining Asset Allocation Alpha – Hsu and Shakernia

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2199099

Abstract:

Despite the large literature on the importance of asset allocation as a primary determinant of portfolio performance, the definition of asset allocation “alpha” remains a poorly defined concept. In this paper, we show that a portfolio’s total alpha can be decomposed into alpha from asset allocation and manager selection. The asset allocation alpha can then be further attributed to value-add from [1] taking additional risk exposure relative to the policy portfolio, [2] exploiting the relative value differential between assets with similar risk exposures and [3] timing the cyclicity in risk premia.

CIQ Analyst Notes:

- The authors develop with a framework to define and decompose asset allocation alpha. They define the total portfolio alpha as the sum of asset allocation alpha and manager selection alpha.
- The asset allocation alpha is further decomposed into static and dynamic alphas. The static alpha is comprised of risk-based alpha, which comes from over- and underweighting risk exposures vis-à-vis the mandate portfolio, and relative-value alpha, which comes from the price differential of assets with the same risk exposures.
- The dynamic alpha is comprised of factor-timing alpha, which comes from the asset allocator’s ability to capture the time variant nature of risk premia and the unexplained [not yet] alpha.

- The authors have come up with a framework that asset allocation practitioners could potentially use to understand where their outperformance is coming from and conduct performance attribution. Existing literature on defining the asset allocation alpha and describing how to conduct performance attribution on asset allocation strategies have been scarce and/or not well-defined.

Strategic Asset Allocation: The Global Multi-Asset Market Portfolio 1959 - 2011 – Doeswijk et al.

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2170275

Abstract:

The portfolio of the average investor contains important information for strategic asset allocation purposes. This portfolio shows the relative value of all assets according to the market crowd, which one could interpret as a benchmark or the optimal portfolio for the average investor. We determine the market values of equities, private equity, real estate, high yield bonds, emerging debt, non-government bonds, government bonds, inflation linked bonds, commodities, and hedge funds. For this range of assets, we estimate the invested global market portfolio for the period 1990-2011. For the main asset categories equities, real estate, non-government bonds and government bonds we extend the period to 1959-2011. To our understanding, we are the first to document the global multi-asset market portfolio at these levels of detail for such a long period of time.

CIQ Analyst Notes:

- The authors estimate an invested global market portfolio using four major asset classes from 1959 – 2011 and estimate another, more granular, invested global market portfolio using ten asset classes from 1990 – 2011.
- The paper provides transparency in regard to how the authors formed and estimated the market value of each of the asset classes as well as the data and assumptions they used.
- The invested global multi-asset market portfolio through the years contains important information in the following ways:
 - one of the better proxies for the [global] market portfolio in the CAPM sense
 - one of the better benchmarks that asset allocation managers could use to measure their performance against
 - long-history 1959 – 2011
 - transparency in how the authors estimate the market values of the asset classes along with the data sources and assumptions they used
 - starting point for portfolio construction
 - the market weights could be used as starting weights in Black-Litterman
 - seeing asset weights through time

Portfolio of Risk Premia: A New Approach to Diversification – Bender, Jennifer, Remy Briand, Frank Nielsen, and Dan Stefek

<http://www.ijournals.com/doi/abs/10.3905/JPM.2010.36.2.017>

Abstract:

Traditional approaches to structuring policy portfolios for strategic asset allocation have not provided the full potential of diversification. Portfolios based on a 60/40 allocation between equities and bonds remain volatile and dominated by equity risk. In this article, the authors introduce a different approach to portfolio diversification, constructing portfolios using available risk premia within the traditional asset classes or risk premia from systematic trading strategies rather than focusing on classic risk premia, such as equities and bonds. Correlations between many risk premia have historically been low, offering significant diversification potential, particularly during periods of distress. These diversification benefits are illustrated with a simple asset allocation case study. From 1995 to 2009, an equal-weighted allocation across 11 style and strategy premia realized similar returns to a traditional 60/40 allocation, but with 70% less volatility.

CIQ Analyst Notes:

- The paper suggests simple implementations to capture risk premia exposures to factors such as Value, Size, and Momentum, as well as Credit and High-Yield Spreads, the carry trade, and currency value & momentum.
- The authors show that lower, and sometimes negative, correlations between the risk premia help reduce the overall volatility of a risk balanced portfolio.
- They find that a portfolio diversified among 11 different risk factors outperformed the classic 60/40 portfolio over the period 1995-2009. The risk-diversified portfolio also delivers lower volatility and lower drawdowns during meltdowns such as the 1997 Asian, LTCM, 9/11, and 2008 crises.

2. Insider Trading

Decoding Inside Information – Cohen, Lauren, Malloy, Christopher J., Pomorski, Lukasz

<http://ssrn.com/abstract=1692517>

Abstract:

Using a simple empirical strategy, we decode the information in insider trades. Exploiting the fact that insiders trade for a variety of reasons, we show that there is predictable, identifiable “routine” insider trading that is not informative for the future of firms. Stripping away these routine trades, which comprise over half the entire universe of insider trades, leaves a set of information-rich “opportunistic” trades that contains all the predictive power in the insider trading universe. A portfolio strategy that focuses solely on opportunistic insider trades yields value-weight abnormal returns of 82 basis points per month, while the abnormal returns associated with routine traders

are essentially zero. Further, opportunistic trades predict future news and events at a firm level, while routine trades do not.

CIQ Analyst Notes:

- The authors define a routine trader as an insider who placed a trade in the same calendar month for at least three consecutive years and opportunistic traders as everyone else. They demonstrate that the abnormal future returns of a firm are significantly higher the more opportunistic buys occur and significantly lower the more opportunistic sells occur.
- The authors argue that by classifying routine trades and opportunistic trades, one can better identify the true information that insiders contain. A regression analysis shows an increase of 158 bps per month in the predictive ability of opportunistic trades relative to routine trades, with over half the improvement coming from the superior performance of opportunistic sells relative to routine sells, in contrast to much of existing literature.
- The results show that opportunistic trades are predictive of future information events at the insider's firm, such as headline news events about the firm, sell-side analyst research releases about the firm, and important management disclosures about the firm, while routine trades are not.
- Although numerous studies have been performed in the insider trading area, this paper shows that a detailed look at the trading pattern of different insiders can help reveal the most informed trades. Further research on refining the classification method may have some potential.

Sec Rule 10b5-1 and Insiders' Strategic Trade – Jagolinzer, Alan D.

<http://ssrn.com/abstract=541502>

Abstract:

The SEC enacted Rule 10b5-1 to deter insiders from trading with private information, yet also protect insiders' preplanned, non-information-based trades from litigation. Despite its requirement that insiders plan trades when not privately informed, the Rule appears to enable strategic trade. Participating insiders' sales systematically follow positive and precede negative firm performance, generating abnormal forward-looking returns larger than those earned by non-participating colleagues. The observed association does not appear to be explained by market transaction disclosure response, "predictable" reversion following positive performance, or general periodic price declines. There is evidence, however, that a substantive proportion of randomly drawn plan initiations are associated with pending adverse news disclosures. There is also evidence that early sales plan terminations are associated with pending positive performance shifts, reducing the likelihood that insiders' sales execute at low prices. Collectively, this suggests that, on average, trading within the Rule does not solely reflect uninformed diversification.

CIQ Analyst Notes:

- This paper focuses on insider trades pursuant to Rule 10b5-1 plans, which are presumably non-information-based trades. Contrary to intuition, however, evidence suggests that there is an association between Rule 10b5-1 trades and abnormal returns.
- Collectively, the results point to some level of strategic trade by participants in Rule 10b5-1, which suggests that trades pursuant to such plans potentially contain some private information.
- This paper looks at insider trading from a different angle than existing literature and provides some insight into the information content of Rule 10b5-1 trades. It demonstrates that detailed data beyond insider purchases and sales may be worth studying.

Do Short Sellers Front-Run Insider Sales – Mozaffa Khan and Hai Lu

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1140694

Abstract:

We study the behavior of short sellers as informed market participants and examine potential sources of their information. Using a newly available dataset with high-frequency short sales data, we find evidence of significant increases in short sales immediately prior to large insider sales, but not prior to small insider sales. We examine a number of explanations that the increase in short sales is driven by public information, either about the firm or about the impending insider sale. The evidence is inconsistent with these explanations, but is consistent with front-running facilitated by leaked information.

CIQ Analyst Notes:

- Using intra-day transactions short sales data, the authors document significantly positive abnormal short sales in days leading up to large insider sales; small insider sales do not show increased abnormal short sales in the days leading up to the event.
- The authors attribute this phenomenon to front-running of insider sales by short-sellers, and they document stronger front-running when the quality of a company's accounting information is poor.
- They reject alternative explanations for the source of front-runners' information, including adverse public information, dividends, litigation, and acquisition and propose that their evidence is more consistent with information leakage.
- The authors report that front-running larger insider sales of firms with poor accounting quality or using Cohen's et al's opportunistic/routing algorithm yields 3% and 1.5% CAR respectively in the 20 days following the insider sale.

Momentum and Insider Trading* - Qingzhong Ma

<http://www.efmaefm.org/OEFMAMEETINGS/EFMA%20ANNUAL%20MEETINGS/2013-Reading/papers/mom.pdf>

Abstract:

Insider trading activity contains important information for understanding momentum. In the short term, past winners [losers] continue to earn significant positive [negative] returns only if their insider trading activity indicates positive [negative] insider information. Thus, short-term momentum is attributable to investors underreacting to insider trading information that confirms past return. In the long term, past winners [losers] earn significant negative [positive] returns only if their insider trading activity indicates negative [positive] information. Thus long-term reversal is attributable to investors underreacting to insider trading information that disconfirms past return. After controlling for insider trading information, there is no evidence of overreaction.

CIQ Analyst Notes:

- This paper examines whether the subsequent returns of past winners and losers are systematically related to preceding insider trading information - specifically, whether momentum is due to investors under-reacting to the preceding insider trading information or due to over-reaction.
- The analysis supports that preceding insider trading information is important for understanding momentum.
- The results show that when insider trading activity indicates positive [negative] insider information, past winners [losers] continue to earn significant positive [negative] returns over the short term.
- The authors also provide evidence that short-term momentum is not necessarily followed by long-term reversal.

Analysts Recommendations and Insider Trading - Jim Hsieh, Lillian Ng and Qinghai Wang

http://www1.american.edu/academic.depts/ksb/finance_realestate/mrobe/Seminar/Hsieh.pdf

Abstract:

This paper studies interactions between analyst stock recommendations and insider trading activities as well as the investment value of these two important information signals. We find that these two sources of information are often contradictory. Insiders in aggregate buy more shares when their firm's stock is unfavorably recommended or downgraded by analysts than when it is favorably recommended or upgraded. This evidence is robust to various controls such as firm size, book-to-market ratios, and stock price momentum. We also show that analyst recommendations affect insider trading decisions, but not vice versa. Further evidence reveals that insiders' trades or analysts' recommendations can be informative: insiders' buying activities contain positive information when analysts do not view the stocks negatively, and analysts' downgrades contain negative information when there is little insider trading. The last result is at least partially attributed to analyst bias and regulations on insider trading.

CIQ Analyst Notes:

- The analysis shows contradictory information signals between insiders' trading activities and analysts' recommendations – insiders trade against the recommendations from financial analysts.
- The results also confirmed the previous studies – insider buys are informative, and, on average, analyst stock recommendations have value.
- The paper demonstrates that insider trading activities combined with analyst recommendations are particularly useful in conveying positive information to the market place; it adds value to investment decision.

3. Event Studies

The Adjustment of Stock Prices to New Information - Fama, Eugene F., Fisher, Lawrence, Jensen, Michael C. and Roll, Richard W.

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=321524

Abstract:

There is an impressive body of empirical evidence which indicates that successive price changes in individual common stocks are very nearly independent. Recent papers by Mandelbrot and Samuelson show rigorously that independence of successive price changes is consistent with an efficient market, i.e., a market that adjusts rapidly to new information. It is important to note, however, that in the empirical work to date the usual procedure has been to infer market efficiency from the observed independence of successive price changes. There has been very little actual testing of the speed of adjustment of prices to specific kinds of new information. The prime concern of this paper is to examine the process by which common stock prices adjust to the information [if any] that is implicit in a stock split. In doing so we propose a new event study methodology for measuring the effects of actions and events on security prices.

CIQ Analyst Notes:

- Fama, Fisher, Jensen, and Roll [FFJR] study the effect of the announcement of a stock split on stock prices. To find the effect of a split on a stock, they control for the relation between the return of that stock and the return on a broad market index during a given month.
- They use the residual from the market model for the month corresponding to the occurrence of the split to estimate the abnormal return for the stock, thereby removing the effects of macro factors and leaving only the part of the return associated with firm specific information, i.e. the effect of the split announcement.
- FFJR introduced event study methodology and set the standard for best practices in this area and future research on this topic.
- The event study methodology discussed in this paper is used to test whether the market efficiently incorporates new information and explore the effect of an event on a firm's shareholders.

The Event Study Methodology Since 1969 - John J. Binder

<http://myweb.clemson.edu/~maloney/EQRcites/Binder98.pdf>

Abstract:

This paper discusses the event study methodology, beginning with FFJR [1969], including hypothesis testing, the use of different benchmarks for the normal rate of return, the power of the methodology in different applications and the modeling of abnormal returns as coefficients in a [multivariate] regression framework. It also focuses on frequently encountered statistical problems in event studies and their solutions.

CIQ Analyst Notes:

- This paper discuss two main event study methodologies: 1] where abnormal returns are measured as residuals from a benchmark model and 2] the use of dummy variables in a regression to parameterize the event effects.
- Starting with the FFJR methodology, the author expands to topics such as hypothesis testing, beta estimation, the use of alternative benchmarks of the normal rate of return, and testing the statistical power of the event study methodology when the event date is not necessarily known. He also reviews cases using dummy variables where the abnormal returns are modeled as coefficients in a regression model.
- When conducting event studies in our own research, this paper continues to be an excellent reference on the various methodologies that can be used and where they are most applicable given the circumstances of the tests.

Event Studies in Economics and Finance – A. Craig MacKinlay

<http://links.jstor.org/sici?sici=0022-0515%28199703%2935%3A1%3C13%3AESIEAF%3E2.0.CO%3B2-W>

Abstract:

Economists are frequently asked to measure the effects of an economic event on the value of firms. On the surface this seems like a difficult task, but a measure can be constructed easily using an event study. Using financial market data, an event study measures the impact of a specific event on the value of a firm. The usefulness of such a study comes from the fact that, given rationality in the marketplace, the effects of an event will be reflected immediately in security prices...Some examples include mergers and acquisitions, earnings announcements, issues of new debt or equity, and announcements of macroeconomic variables such as the trade deficit...In the majority of applications, the focus is the effect of an event on the price of a particular class of securities of the firm, most often common equity. In this paper the methodology is discussed in terms of applications that use common equity.

CIQ Analyst Notes:

- This paper provides a practical overview to event study methods in Finance. The author walks through the process of selecting an event, data collection, and useful analysis at each step of the process.
- This procedure is illustrated with an example event study tracking the return impact of Earnings Surprise from Quarterly Earnings Announcements in the Dow Jones Industrial Index from January 1989 to December 1993.
- The estimation of normal returns is critical to an event study in order to assess the abnormal impact of the event being studied. The paper includes a discussion of common normal return models [Constant Mean Return, CAPM, etc.] used in Finance as well as some pitfalls to these various methods.
- Finally, these abnormal returns are aggregated and tested to identify the significance of the event in driving abnormal returns in general. As in the discussion of abnormal return models, the author goes into possible issues and biases that could influence the results of an event study such as clustering and event-date uncertainty.

What Moves Stock Prices: Another Look – Bradford Cornell

<http://www.ijournals.com/doi/abs/10.3905/ijpm.2013.39.3.032>

Abstract:

In 1989, Culter, Poterba, and Summers published an article examining the extent to which ex post movements in aggregate stock prices could be attributed to the arrival of news. They concluded that most of the 50 largest movements in the S&P 500 could not be matched with any convincing explanation for why future profits or discount rates might have changed. Since 1989, there has been an explosion in information technology, enhanced market regulation, and stock-trading innovation, as well as the introduction of new, equity-related financial products. The author explores whether Culter, Poterba, and Summers's conclusion still holds, and reports that it is intact. If anything, the mystery has deepened, because the size of unexplained market movements has grown.

CIQ Analyst Notes:

- This paper deepens the debate over efficient markets. Intuitively, one might suspect that the largest aggregate re-pricings would be associated with new information or an event. The authors find, that like in the earlier Cutler et al study, large market moves are seldom associated with significant news.
- One might infer that significant shifts in psychology drive large market moves more than events or fundamental changes.
- The authors find that when large moves occur on consecutive days the associated sign of the move reverses.

References

Bender, Jennifer, Remy Briand, Frank Nielsen, and Dan Stefek. 2010. "Portfolio of Risk Premia: A New Approach to Diversification." *Journal of Portfolio Management*, vol. 36, no 2: 17-25.

Binder, John J., 1998, "The Event Study Methodology since 1969", *Review of Quantitative Finance and Accounting* 11,111-137

Cohen, Lauren, Malloy, Christopher J. and Pomorski, Lukasz, NBER Working Paper No. w16454. Available at SSRN: <http://ssrn.com/abstract=1692517>

Cornell, Bradford, Spring 2013, "What Moves Stock Prices: Another Look". *Journal Of Portfolio Management*, Vol 39, Number 3.
<http://www.ijournals.com/doi/abs/10.3905/jpm.2013.39.3.032>

Doeswijk, Ronald Q., Lam, Trevin W. and Swinkels, Laurens A. P., *Strategic Asset Allocation: The Global Multi-Asset Market Portfolio 1959-2011* [November 2, 2012]. Available at SSRN: <http://ssrn.com/abstract=2170275> or <http://dx.doi.org/10.2139/ssrn.2170275>

Fama, Eugene F., Fisher, Lawrence, Jensen, Michael C. and Roll, Richard W., *The Adjustment of Stock Prices to New Information* [February 15, 1969]. *International Economic Review*, Vol. 10, February 1969; *STRATEGIC ISSUES IN FINANCE*, Keith Wand, ed., Butterworth Heinemann, 1993; *INVESTMENT MANAGEMENT: SOME READINGS*, J. Lorie, R. Brealey, eds., Praeger Publishers, 1972. Available at SSRN: <http://ssrn.com/abstract=321524> or <http://dx.doi.org/10.2139/ssrn.321524>

Hsieh, J., Ng, L., and Wang, Q. [2005]. *Analysts' recommendations and insider trading*. Working paper, George Mason University, February 4.

Hsu, Jason C. and Shakernia, Omid, *A Framework for Examining Asset Allocation Alpha* [December 20, 2012]. *Journal of Index Investing*, Forthcoming. Available at SSRN: <http://ssrn.com/abstract=2199099>

Jagolinzer, Alan D., *Management Science*, February 2009. Available at SSRN: <http://ssrn.com/abstract=541502> or <http://dx.doi.org/10.2139/ssrn.541502>

Keller, Wouter J. and Van Putten, Hugo S., *Generalized Momentum and Flexible Asset Allocation (FAA): An Heuristic Approach* [December 24, 2012]. Available at SSRN: <http://dx.doi.org/10.2139/ssrn.2193735>

Khan, Mozaffar and Lu, Hai, *Do Short Sellers Front-Run Insider Sales?* [January 28, 2011]. MIT Sloan Research Paper No. 4706-08. Available at SSRN: <http://ssrn.com/abstract=1140694> or <http://dx.doi.org/10.2139/ssrn.1140694>

Ma, Qingzhong [2013]. *Momentum and Insider Trading**. Working Paper, Cornell University, June 9.

MacKinlay, A., 1997. Event studies in Economics and Finance. *Journal of Economic Literature* 35,13–39.

Thomas, Steve H., Clare, Andrew D., Smith, Peter N. and Seaton, James , The Trend is Our Friend: Risk Parity, Momentum and Trend Following in Global Asset Allocation [August 15, 2012]. Available at SSRN: <http://ssrn.com/abstract=2126478> or <http://dx.doi.org/10.2139/ssrn.2126478>

Our Recent Research

June 2013: [Supply Chain Interactions Part 2: Companies – Connected Company Returns Examined as Event Signals](#)

Leveraging Compustat customer segment data, we investigate the impact of news for customers and subsequent stock returns for their suppliers, over the time period May 2000 through April 2011 and find that:

- Shares of suppliers with major customer relationships reacted to positive and negative earnings surprise of their customers with a statistically significant 0.93% to 1.97% abnormal spread in the 5 to 60 trading days following the surprise.
- A monthly rebalanced backtest of long-short supplier portfolios based on customer momentum would have resulted in a statistically significant 0.81% average monthly return, or 0.70% after controlling for common risk factor exposures.
- The customer momentum signal historically performs best in cyclical sectors such as Materials and Consumer Discretionary.

June 2013: [Behind the Asset Growth Anomaly – Over-promising but Under-delivering](#)

In this paper, we revisit the asset growth anomaly. Our results indicate:

- Asset growth demonstrates return predictive power globally with and without controlling for size, value, 12-month price momentum, and 1-month price reversal factors.
- Information coefficient correlation analyses indicate that there are potential diversification benefits from adding asset growth to other alpha factors.
- The companies that demonstrated the highest asset growth show subsequent deterioration in their top-line and bottom-line growth rates while companies that had the lowest asset growth experience subsequent improvement in their top-line and bottom-line growth rates.

April 2013: [Complicated Firms Made Easy – Using Industry Pure-Plays to Forecast Conglomerate Returns](#)

This month we build upon the work done by Cohen and Lou in their 2010 paper, "Complicated Firms", to determine if we can exploit industry level information from pure-play firms to predict the future performance of multi-industry, complicated firms. Leveraging Compustat segment data and Standard Industrial Classification (SIC) 2 digit codes, we exploit the lag in incorporating industry level information between simple and complicated firms to forecast the future performance of complicated firms. This is done by constructing pseudo-conglomerate returns, revisions, and valuation signals that combine the relevant information of all the industries in which a complicated firm operates. These pseudo-conglomerate signals simply weight industry level information [ex: industry return] proportionately to the complicated firm's reported sales in each industry.

March 2013: [Risk Models That Work When You Need Them – Short Term Risk Model Enhancements](#)

Equity Risk models are subject to a common criticism. We examined three techniques to further enhance the S&P Capital IQ Fundamental Factor risk models: Utilized the cross sectional dispersion of stock and factor returns by adjusting model factors and stock specific volatilities,

change the model production frequency from monthly to daily to capture recent data, and shorten data look back window [1 year as opposed to 2 years] resulting in a more reactive model. Dispersion based adjustments, and high frequency of model generation both improved model results, while a shortened calibration window showed no appreciable improvement.

March 2013: [Follow the Smart Money – Riding the Coattails of Activist Investors](#)

Can profits be made by following the actions of activists? One month after the commencement of activism, the strategy yielded a market-adjusted excess return of 3.4%. After controlling for market, size, value, and industry, the excess return was 2.7. Twelve months after the disclosure of activist involvement, the strategy produced an average excess return of 14.1% after controlling for market, size, value, and momentum. We did not find evidence of return reversal up to two years after activism or of diminished excess returns in 2008 -- 2012 vis-à-vis those in 2003 -- 2007.

February 2013: [Stock Selection Model Performance Review: Assessing the Drivers of Performance in 2012](#)

In this report, we review the performance of S&P Capital IQ's four U.S. stock selection models in 2012. These models were launched in January 2011, and this analysis will assess the underlying drivers of each model's performance over the 12 months ended December 31, 2012.

January 2013: [Research Brief: Exploiting the January Effect Examining Variations in Trend Following Strategies](#)

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.

December 2012: [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](#)

June 2012: [Riding Industry Momentum – Enhancing the Residual Reversal Factor](#)

May 2012: [The Oil & Gas Industry – Drilling for Alpha Using Global Point-in-Time Industry Data](#)

May 2012: [Case Study: S&P Capital IQ – The Platform for Investment Decisions](#)

March 2012: [Exploring Alpha from the Securities Lending Market – New Alpha Stemming from Improved Data](#)

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

January 2012: [Intelligent Estimates – A Superior Model of Earnings Surprise](#)

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 Brief – 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: [COA 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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