Never Waste a Crisis: Following the Smart Money through Beneficial Ownership Filings

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Investors looking for ideas amid the recent market downturn may profit from an understanding of beneficial ownership filings: SEC schedules 13D and 13G. Large shareholders must file a 13D or 13G richard.tortoriello@spglobal.com when they acquire 5% or more of a voting class of a corporation's shares. These purchases, therefore, often represent high conviction buys by activists, industry insiders, hedge funds, etc. Our previous investor activism research shows that investors can benefit by following activists' lead: a portfolio of stocks that activists had targeted outperformed the market by over 8% annually and target shareholders saw rising dividend payments and share buybacks post-activism.

> This report examines recent 13D and 13G filings, and spotlights four purchases of target companies with high historical operating cash flows and below average dividend payments, characteristics of companies typically targeted by activists. High cash flow generation can be used to fund both corporate growth and shareholder payouts. Figure 1 shows buy zones (in green) for four select 13D filings.

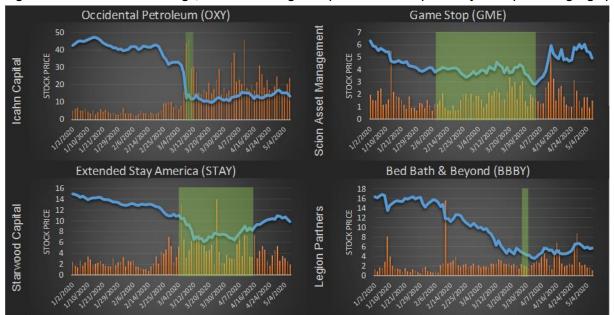


Figure 1. Four Recent 13D Filings, with Purchasing Firm (on Vertical Axis) and Buy Zone (Green Highlight)

Source: S&P Global Market Intelligence Quantamental Research. Past performance is not a guarantee of future results. Data as of May 6, 2020.

Within the list of recent 13D filings (Figure 2, below), a few themes stand out:

- Recession-resistant industries, including biotechnology (Mersana Therapeutics and Aravive) and software (Cloudera and Comvault Systems).
- Stay-at-home-friendly names: GameStop (video gaming), Meet Group (online social networking), Wayfair (online home furnishings), Bed Bath & Beyond.
- Food sellers: Chefs' Warehouse (specialty foods), Farmer Bros. (coffee, tea & culinary).
- Beaten-down energy names: Occidental Petroleum, Sprague Resources (oil & gas storage).

¹ 13Ds are filed by investors who are seeking control, while 13Gs are shorter forms that are filed by passive investors.

Figure 2. Select Recent 13D Filings, Including Current Percentage of Shares Outstanding Held

Filing Date	Target Company Name	Symbol	Market Cap (\$mm)	Purchaser Name	Hedge Fund?	% of Shares O/S (5/19)
4/17/2020	Mersana Therapeutics, Inc.	MRSN	584	Bain Capital Life Sciences Investors, LLC	No	5.85%
4/17/2020	Wayfair Inc.	W	17,062	Great Hill Partners, LP	No	6.00%*
4/16/2020	Extended Stay America, Inc.	STAY	1,757	Starwood Capital Operations, LLC	No	8.52%
4/16/2020	Aravive, Inc.	ARAV	189	Eshelman Ventures, LLC	No	5.84%
4/15/2020	Cloudera, Inc.	CLDR	2,341	Icahn Capital LP	No	17.72%
4/10/2020	GameStop Corp.	GME	318	Scion Asset Management, LLC	Yes	4.34%
4/8/2020	Sprague Resources LP	SRLP	297	Oaktree Capital Management, L.P.	Yes	6.00%
4/2/2020	Bed Bath & Beyond Inc.	BBBY	700	Legion Partners Asset Management, LLC	Yes	5.41%**
3/30/2020	The Chefs' Warehouse, Inc.	CHEF	355	Legion Partners Asset Management, LLC	Yes	2.72%
4/1/2020	Farmer Bros. Co.	FARM	136	Trigran Investments, Inc.	Yes	12.91%
3/30/2020	Commvault Systems, Inc.	CVLT	1,980	Starboard Value LP	Yes	9.91%
3/24/2020	Winnebago Industries, Inc.	WGO	1,506	Punch Card Capital, LLC	Yes	5.00%
3/19/2020	The Meet Group, Inc.	MEET	442	Magnetar Capital, LLC	Yes	4.92%
3/12/2020	Occidental Petroleum Corporation	OXY	12,060	Icahn Capital LP	No	9.85%

^{*}Includes convertible senior notes convertible to 3,448,276 common shares.

Source: S&P Global Market Intelligence Quantamental Research. Data as of May 19, 2020.

Note that percentage of shares outstanding have been updated to reflect current ownership levels, and may differ from filing.

Spotlight: Notable Recent 13D/G Filings

This section looks in-depth at recent filings by four prominent investment funds in companies with above-average cash flow generation. See the <u>Appendix</u> for a list of recent 13G filings.

1. Starwood Capital - Extended Stay America

Starwood Capital 60-Day Investments (13D)					
Aggregate Purchase Price	\$136,788,930				
# of Shares Purchased	15,121,847				
% of Outstanding Shares	8.53%				
Average Purchase Price	\$9.05				
Purchase Price Range	\$6.98 - \$10.90				
Purchase Date Range	3/4/2020 - 4/15/2020				
% 60-Day Purchase/Total	100.00%				

- Starwood's 8.5% purchase of STAY follows the company's losing bid for STAY, to Centerbridge Partners, in a 2010 bankruptcy auction. STAY owns 631 hotels in the mid-priced, extended stay segment.
- Foot traffic at STAY's properties fell by 62% in March, year-to-year, narrower than the 73% average decline for non-REIT hotel peers (foot traffic data is <u>from Airsage</u>).
- STAY has withdrawn 2020 guidance. On May 6, STAY reported Q4 normalized EPS of \$0.07, \$0.02 ahead of estimates. Revenue of \$266mm was also above views.
- STAY's CEO bought 50,000 shares in March (below).

Insider Trade Highlights						
Name	ame Position Aggreg		Number of Shares	Price Range	Date Range	
Bruce Haase	Chief Executive Officer	\$512,538	50,000	\$10.07 - \$10.33	3/6/2020 - 3/9/2020	
Michael Kuenne	Senior Key Executive	\$13,800	1,500	\$9.20	3/10/2020	
Kapila Anand	Member of the Board of Directors	\$14,925	1,500	\$9.95	3/6/2020	

^{**}Includes 1,150,000 shares from long call options currently exercisable.

2. Icahn Capital - Occidental Petroleum

Icahn Capital 60-Day Investments (13D)					
Aggregate Purchase Price	\$963,333,345				
# of Shares Purchased	66,055,417				
% of Outstanding Shares	7.92%				
Average Purchase Price	\$14.58				
Purchase Price Range	\$12.68 - \$17.11				
Purchase Date Range	3/9/2020 - 3/11/2020				
% 60-Day Purchase/Total	74.53%				

- Icahn Capital is an investment subsidiary of Icahn Enterprises, chaired by billionaire investor Carl Icahn.
- Filing showed that Icahn Enterprises owned a 7.9% stake in OXY and Carl Icahn personally owned 9.9%.
- On May 5, OXY reported a Q1 normalized loss per share of \$0.52, \$0.10 better than analyst views. Oil revenues were 9% below expectations.
- Icahn Capital also filed a 13D for Cloudera, Inc., on April 15, indicating 17.7% ownership.

3. Public Investment Fund - Carnival Corporation

Public Investment Fund: Recent 13G Holdings							
Target Company	Market Capitalization (\$m)	Number of Shares	Holding Date	% Owned			
Carnival Corporation	\$10,324	43,508,895	3/26/2020	8.20%			

- The Public Investment Fund, an investment arm of the government of Saudi Arabia, disclosed an initial 8.2% stake in CCL in a 13G filing on April 6. The fund has since reduced its ownership stake, to 4.6%, according to a recent 13F filing.
- On April 6, Randall Weisenburger, a Carnival director, purchased 1.25mm shares in CCL for \$10 million.
- CCL has announced that a limited number of cruises may take place starting in August of this year.
- CCL has suspended dividend payments and stock repurchases, and has recently raised over \$6 billion through debt and equity issuance.

4. D.E. Shaw - Yelp

D.E. Shaw: Recent 13G Holdings							
Target Company	Holding Date	% Owned					
Yelp	\$1,591	3,593,836	4/3/2020	5.00%			

- Hedge fund D.E. Shaw announced 5% holdings in Yelp Inc. (YELP) through 13G filings in mid-April. It also filed a 13-G for microcap stock Blue Apron (APRN).
- YELP withdrew its 2020 guidance in March. On May 7, YELP posted Q1 normalized EPS of \$0.23, in-line
 with consensus, and down 39% from a year earlier. Revenue of \$250 million (up 6%, year-to-year) was
 10% above estimates. Prior to withdrawing guidance YELP had expected 8-10% revenue growth in Q1 and
 10-12% growth for 2020.

5. Data

The data from this report are sourced from S&P Global Market Intelligence's Ownership database, which covers equity ownership for over 99.7% of global public and private (delisted) companies comprising more than 36,000 institutional investment firms, 45,000 mutual funds, and 300,000 insider/individual owners. Data is captured from over 1,500 relevant documents, including SEC forms 13F, 13G, 13D, and insider trading forms. History is available back to 2004.

Estimates data are from S&P Global Estimates, a comprehensive, standardized database of global, real-time financial forecasting measures on upgrades/downgrades, target price revisions, market-moving news or significant developments for public companies worldwide, and estimates based on the projections, models, analysis, and research of analysts, brokers, and the companies themselves.

Conclusion

Uncertainty caused by the COVID-19 pandemic has created potential investment opportunities in specific industries and stocks. Investors looking for investment ideas can "follow the smart money" by reviewing recent 13D and 13G filings. Since 13Ds and/or 13Gs must be filed when an investor acquires 5% or more of a company's outstanding shares, such filings represent conviction buys. In addition, <u>our research</u> has shown that following in the footsteps of activist investors has historically been a profitable strategy.

See the <u>Appendix</u> for a list of recent 13G filings, including Citadel's purchase of Tesla and Morgan Stanley's purchase of Dave & Buster's. For those interested in what the "smart money" is doing, 13D and 13G filings, along with insider filings, are a good place to start. We also note that investment managers with at least \$100 million in assets were required to file first-quarter 13Fs (equity holdings) with the SEC by May 15, 2020. For more on institutional holdings, see our 2016 research paper <u>An IQ</u> <u>Test for the "Smart Money."</u>

Appendix – Select Recent 13G Filings (Passive Investments)

Filing Date	Target Company Name	Symbol	Market Cap (\$mm)	Purchaser Name	Hedge Fund?	% of Shares O/S (5/19)
5/1/2020	CarGurus, Inc.	CARG	2,677	Morgan Stanley, Investment Banking and Brokerage Investments	No	5.12%
5/1/2020	Forescout Technologies, Inc.	FSCT	1,031	Beryl Capital Management LLC	Yes	5.69%
4/28/2020	Gartner, Inc.	IT	10,291	Generation Investment Management LLP	No	5.19%
4/28/2020	Liberty Broadband Corporation	LBRD.A	22,974	Norges Bank Investment Management	No	5.02%
4/28/2020	Fitbit, Inc.	FIT	1,727	Norges Bank Investment Management	No	5.08%
4/27/2020	Arcturus Therapeutics Holdings Inc.	ARCT	1,105	Cormorant Asset Management, LLC	Yes	5.75%
4/27/2020	Signet Jewelers Limited	SIG	504	D. E. Shaw & Co., L.P.	Yes	5.09%
4/27/2020	The RealReal, Inc.	REAL	1,081	Woodson Capital Management, LLC	Yes	5.26%
4/27/2020	Live Nation Entertainment, Inc.	LYV	9,489	Public Investments Fund	No	5.83%
4/24/2020	Tesla, Inc.	TSLA	149,780	Citadel Securities, LLC, Asset Management Arm	No	4.14%
4/23/2020	Dave & Buster's Entertainment, Inc.	PLAY	532	Morgan Stanley, Investment Banking and Brokerage Investments	No	5.20%
4/22/2020	Bill.com Holdings, Inc.	BILL	5,697	Temasek Holdings (Private) Limited	No	7.66%
4/22/2020	Covanta Holding Corporation	CVA	1,158	Norges Bank Investment Management	No	5.01%
4/22/2020	Collegium Pharmaceutical, Inc.	COLL	752	Perceptive Advisors LLC	Yes	5.01%
4/21/2020	Arch Resources, Inc.	ARCH	475	Morgan Stanley, Investment Banking and Brokerage Investments	No	6.27%
4/17/2020	Blue Apron Holdings, Inc.	APRN	114	D. E. Shaw & Co., L.P.	Yes	4.35%
4/16/2020	Immunomedics, Inc.	IMMU	7,671	Point72 Asset Management, L.P.	No	4.74%
4/16/2020	BGC Partners, Inc.	BGCP	937	Point72 Asset Management, L.P.	No	4.98%
4/13/2020	Yelp Inc.	YELP	1,501	D. E. Shaw & Co., L.P.	Yes	5.00%
4/13/2020	Carvana Co.	CVNA	5,696	T. Rowe Price Group, Inc.	No	20.30%
4/10/2020	Synaptics Incorporated	SYNA	2,061	FMR LLC	No	11.74%
4/10/2020	II-VI Incorporated	IIVI	4,148	FMR LLC	No	10.71%
4/10/2020	Genpact Limited	G	6,423	FMR LLC	No	9.60%
4/10/2020	Revolution Medicines, Inc.	RVMD	2,046	FMR LLC	No	11.28%
4/10/2020	Inspire Medical Systems, Inc.	INSP	2,130	FMR LLC	No	11.03%
4/10/2020	Beacon Roofing Supply, Inc.	BECN	1,501	Adage Capital Management, L.P.	Yes	5.01%
4/10/2020	Urban Outfitters, Inc.	URBN	1,753	Shapiro Capital Management LLC	No	9.92%
4/10/2020	Graphic Packaging Holding Company	GPK	3,690	Shapiro Capital Management LLC	No	5.04%
4/9/2020	AutoNation, Inc.	AN	3,291	Caisse de dépôt et placement du Québec	No	5.29%
4/9/2020	Heska Corporation	HSKA	755	Park West Asset Management LLC	Yes	6.00%*
4/9/2020	OrthoPediatrics Corp.	KIDS	829	Brown Capital Management, LLC	No	7.72%
4/9/2020	Halozyme Therapeutics, Inc.	HALO	3,185	Artisan Partners Limited Partnership	No	10.64%
4/6/2020	Carnival Corporation & Plc	CCL	10,383	Public Investments Fund	No	4.59%
4/2/2020	Sealed Air Corporation	SEE	4,661	Rivulet Capital, LLC	Yes	5.00%
3/27/2020	Nevro Corp.	NVRO	4,158	HealthCor Management L.P.	Yes	5.16%
3/26/2020	National General Holdings Corp.	NGHC	2,070	Park West Asset Management LLC	Yes	5.07%
3/26/2020	SailPoint Technologies Holdings, Inc.	SAIL	1,903	SoMa Equity Partners, L.P.	Yes	5.88%
3/25/2020	Royal Dutch Shell plc	RDSA	112,490	Norges Bank Investment Management	No	2.29%
3/24/2020	Carnival Corporation & Plc	CCL	10,383	Norges Bank Investment Management	No	5.10%

^{*} Includes convertible preferred stock convertible to 482,869 common shares.

Source: S&P Global Market Intelligence Quantamental Research. Data as of May 19, 2020.

Note that percentage of shares outstanding have been updated to reflect current ownership levels, and may differ from filing.

Our Recent Research

May 2020: No More Walks in the (Office) Park: Tying Foot Traffic Data to REITs

Foot traffic data provides investors and corporate managers with key insights on the level of activity at properties and the demographic profile of visitors to these locations.

Corporate managers can use this information to pinpoint properties at greater risk of tenant defaults, while investors can use foot traffic data to identify REITs managing properties where activity remains robust.

More importantly, once the nationwide lockdown eases, foot traffic can serve as a leading indicator of a return of economic activity across industries.

May 2020: Do Markets Yearn for the Dog Days of Summer? COVID, Climate, and Consternation

Weather data, from data provider Weather Source, is combined with SNL Real Estate Property data to expose potential risks for Real Estate Investment Trusts (REITs) of prolonged closures, as well as areas that may see a resurgence of the virus later this year.

Over 36,000 REIT property locations were overlaid with Weather Source data to generate quarterly 'temperature zone exposure' scores for 165 REITs in the Russell 3000 index.

Empirical support for the correlation between temperature and viral spread is provided by combining Weather Source data with John Hopkin's University's COVID-19 database, provided by Star Schema via the Snowflake cloud computing platform.

April 2020: Cold Turkey - Navigating Guidance Withdrawal Using Supply Chain Data

A recent surge in corporate earnings guidance withdrawals has left decision-makers missing a wrench in their toolbox. Corporate guidance was already declining, in 2018, when the number of companies in the Russell 3000 providing guidance peaked at 1,721, dropping 6.9% year over year in 2019 to 1,632 companies. Guidance has been further impacted by the Coronavirus pandemic – 173 companies withdrew their previous guidance in the first quarter. This leaves decision-makers looking for alternative forward-looking information on a company's prospects.

Shipping data can provide a near real-time view into a firm's activities. Declines in shipping activity could indicate the rate at which a company's underlying business is slowing. Alternatively, if shipments remain largely unchanged, a company's underlying health may also be unchanged. Increased international trade activity could indicate an increase in corporate inventories and associated activity. A buildup in inventories often occurs as firms hope to turn imports into sales, or plan for an anticipated supply disruption. Firms and industries that show a decrease in international trade may suggest 1) inventory levels are over-stocked 2) demand forecasts are unfavorable, or 3) significant supply chain shifts are underway.

April 2020: <u>Data North Star - Navigating Through Information Darkness</u>

Crisis creates uncertainty. Familiar landmarks lose their value and decision makers are left to navigate on partial information. Following the outbreak of the COVID-19 pandemic, this is the environment in which investors and corporate decision-makers now suddenly find themselves. The S&P Global Quantamental Research team has launched a series of research briefs that will aid decision-makers in navigating this uncertain environment. Utilizing non-traditional datasets across the entire S&P Global

Market Intelligence product suite, these briefs will provide market participants with analysis on COVID-19's impact to the financial markets geared to fill the current information gap.

March 2020: Long Road to Recovery: Coronavirus Lessons from Supply Chain and Financial Data

COVID-19 continues to disrupt global supply chains in unprecedented ways. Leveraging maritime shipping data from Panjiva, this report includes a review of trade and financial data to analyze the impact of the SARS-CoV-2 / COVID-19 coronavirus outbreak. Findings include:

- Second-order supply chain effects are also emerging with the apparel industry now seeing a shortage of materials globally due to earlier outages in China.
- Retailers including Costco and Target are gaining from increased sales of health- and personal care
 products. Yet, supply shortages are rapidly emerging in part due to medical supply export
 restrictions in several countries.
- There is a notable, but not statistically significant, relationship with firms with higher exposure to Asia having seen a weaker sector neutral stock price performance.

February 2020: Ship to Shore: Mapping the Global Supply Chain with Panjiva Shipping Data in Xpressfeed™

World merchandise trade accounted for an estimated \$19.7 trillion in 2018, about 90% of which is by sea. While financial data tells us "how a company has done in the past," shipping data provides a closer-to-real time indicator of "what a company is doing now." Panjiva's shipping data allows investors to track trends, identify anomalies, and assess risks for companies engaged in international trade. This paper illustrates how to find investment insights in Panjiva's US seaborne and Mexican datasets using the US auto parts industry as a case study.

Findings include:

- Shipment trends often lead fundamentals: Rising shipments amid flat or declining fundamentals may signal future financial trend reversal
- Growth in the number of a company's suppliers and in the types of products it imports may signal strengthening demand and/or product line diversification.
- Tracking industry-level product-line trends can help identify companies with significant exposure to rising or declining product lines.

January 2020: <u>Natural Language Processing – Part III: Feature Engineering Applying NLP Using Domain Knowledge to Capture Alpha from Transcripts</u>

Unstructured data is largely underexplored in equity investing due to its higher costs. One particularly valuable unstructured data set is S&P Global Market Intelligence's machine readable earnings call transcripts.

- Topic Identification Firms that referenced the most positive descriptors around their financials outperformed historically.
- Transparency Firms that provided greater call transparency exhibited by executives' behaviors and decisions outperformed historically.
- Weighted Average Sentiment Quantifying call sentiment using a weighted average construct led to better returns and less volatility historically.

 Additive Forecasting Power – The newly introduced signals demonstrated additive forecasting power above commonly used alpha and risk signals historically.

December 2019: The "Trucost" of Climate Investing: Managing Climate Risks in Equity Portfolios

Does sustainable investing come at a "cost", and is the fear of investors around the performance concessions of "green" portfolios warranted? Our latest research suggests investors' fears are misplaced — carbon-sensitive portfolios have similar returns and significantly better climate characteristics than portfolios constructed without carbon emission considerations. Other findings include:

- Highly profitable firms are likely to be leaders in reducing their carbon emission levels.
- There is no degradation in fundamental characteristics for the carbon-sensitive portfolios compared to the baseline portfolio, even though the difference in constituents can be as high as 20%.
- Carbon-sensitive portfolios were observed as having significant reductions in water use, air pollutants released and waste generated.

October 2019: #ChangePays: There Were More Male CEOs Named John than Female CEOs

This report examines the performance of firms that have made female appointments to their CEO and CFO positions. Our research finds that firms with female CEOs and/or CFOs:.

- Are more profitable and generated excess profits of \$1.8 trillion over the study horizon.
- Have produced superior stock price performance, compared to the market average.
- Have a demonstrated culture of Diversity and Inclusion, evinced by more females on the company's board of directors.

June 2019: Looking Beyond Dividend Yield: Finding Value in Cash Distribution Strategies

Examines the relationship between yield-oriented strategies (dividend yield, buyback yield, and combined shareholder yield) and future stock return, across multiple countries/regions. Also provides insights into two additional topics:

- Which company fundamental characteristics support and enhance future shareholder payouts?
- Under which interest rate environment should investors favor yield-oriented strategies?

June 2019: The Dating Game: Decrypting the Signals in Earnings Report Dates

The first part of this report focuses on companies that deviate from a historical reporting pattern, while the second part examines a related topic – the market's reaction to companies that postpone a previously scheduled (announced) earnings release date.

- "Advancers" (companies that advance their earnings report date by at least 6 days) are likely to
 report improving year-year on sales, better earnings surprises, and more positive conference
 call sentiment readings than their industry group peers and "delayers" (companies that delay
 their earnings report date by at least 6 days).
- Advancers outperform delayers by over 7% on an annualized basis (Russell 3000). This return rises to 8.80% (Russell 2000) and falls to 2.21% (Russell 1000).
- The annualized return to stocks identified as buy candidates and tagged as advancers is 10.77%, compared to 6.29% for buy candidates tagged as delayers.
- Companies that postpone a previously announced earnings release date underperform the broad market by 2.44% in the 3 days surrounding the announcement. These companies are also likely to report deteriorating fundamentals.

May 2019: <u>Bridges for Sale: Finding Value in Sell-Side Estimates, Recommendations, and Target</u> Prices

February 2019: <u>U.S Stock Selection Model Performance Review</u>

February 2019: <u>International Small Cap Investing: Unlocking Alpha Opportunities in an</u> Underutilized Asset Class

January 2019: Value and Momentum: Everywhere, But Not All the Time

November 2018: Forging Stronger Links: Using Supply Chain Data in the Investing Process

September 2018: Their Sentiment Exactly: Sentiment Signal Diversity Creates Alpha Opportunity

September 2018: <u>Natural Language Processing – Part II: Stock Selection: Alpha Unscripted: The Message within the Message in Earnings Calls</u>

July 2018: A Case of 'Wag the Dog'? - ETFs and Stock-Level Liquidity

June 2018: The (Gross Profitability) Trend is Your Friend

May 2018: Buying the Dip: Did Your Portfolio Holding Go on Sale?

March 2018: In the Money: What Really Motivates Executive Performance?

February 2018: The Art of the (no) Deal: Identifying the Drivers of Canceled M&A Deals

January 2018: U.S Stock Selection Model Performance Review

September 2017: Natural Language Processing - Part I: Primer

July 2017: Natural Language Processing Literature Survey

June 2017: Research Brief: Four Important Things to Know About Banks in a Rising Rate Environment

April 2017: Banking on Alpha: Uncovering Investing Signals Using SNL Bank Data

March 2017: Capital Market Implications of Spinoffs

January 2017: U.S. Stock Selection Model Performance Review 2016

November 2016: Electrify Stock Returns in U.S. Utilities

October 2016: A League of their Own: Batting for Returns in the REIT Industry - Part 2

September 2016: A League of their Own: Batting for Returns in the REIT Industry - Part 1

August 2016: Mergers & Acquisitions: The Good, the Bad and the Ugly (and how to tell them apart)

July 2016: Preparing for a Slide in Oil Prices -- History May Be Your Guide

June 2016: Social Media and Stock Returns: Is There Value in Cyberspace?

April 2016: <u>An IQ Test for the "Smart Money" – Is the Reputation of Institutional Investors</u> Warranted?

March 2016: <u>Stock-Level Liquidity – Alpha or Risk? - Stocks with Rising Liquidity Outperform</u> Globally

February 2016: <u>U.S. Stock Selection Model Performance Review - The most effective investment strategies in 2015</u>

January 2016: What Does Earnings Guidance Tell Us? – Listen When Management Announces Good News

November 2015: <u>Late to File - The Costs of Delayed 10-Q and 10-K Company Filings</u>

October 2015: Global Country Allocation Strategies

September 2015: Research Brief: Building Smart Beta Portfolios

September 2015: Research Brief – Airline Industry Factors

August 2015: Point-In-Time vs. Lagged Fundamentals – This time i(t')s different?

August 2015: Introducing S&P Capital IQ Stock Selection Model for the Japanese Market

July 2015: Research Brief - Liquidity Fragility

May 2015: Investing in a World with Increasing Investor Activism

April 2015: <u>Drilling for Alpha in the Oil and Gas Industry – Insights from Industry Specific Data & Company Financials</u>

February 2015: <u>U.S. Stock Selection Model Performance Review - The most effective investment strategies in 2014</u>

January 2015: Research Brief: Global Pension Plans - Are Fully Funded Plans a Relic of the Past?

January 2015: <u>Profitability: Growth-Like Strategy, Value-Like Returns - Profiting from Companies</u> with Large Economic Moats

October 2014: <u>Lenders Lead, Owners Follow - The Relationship between Credit Indicators and</u> Equity Returns

July 2014: Factor Insight: Reducing the Downside of a Trend Following Strategy

May 2014: Introducing S&P Capital IQ's Fundamental China A-Share Equity Risk Model

April 2014: Riding the Coattails of Activist Investors Yields Short and Long Term Outperformance

March 2014: <u>Insights from Academic Literature: Corporate Character, Trading Insights, & New Data Sources</u>

February 2014: Obtaining an Edge in Emerging Markets

February 2014: U.S Stock Selection Model Performance Review

January 2014: <u>Buying Outperformance: Do share repurchase announcements lead to higher returns?</u>

October 2013: Informative Insider Trading - The Hidden Profits in Corporate Insider Filings

September 2013: <u>Beggar Thy Neighbor – Research Brief: Exploring Pension Plans</u>

August 2013: <u>Introducing S&P Capital IQ Global Stock Selection Models for Developed Markets:</u> <u>The Foundations of Outperformance</u>

July 2013: <u>Inspirational Papers on Innovative Topics: Asset Allocation, Insider Trading & Event</u>
Studies

June 2013: <u>Supply Chain Interactions Part 2: Companies – Connected Company Returns</u> Examined as Event Signals

June 2013: Behind the Asset Growth Anomaly – Over-promising but Under-delivering

April 2013: <u>Complicated Firms Made Easy - Using Industry Pure-Plays to Forecast Conglomerate Returns.</u>

March 2013: Risk Models That Work When You Need Them - Short Term Risk Model Enhancements

March 2013: Follow the Smart Money - Riding the Coattails of Activist Investors

February 2013: <u>Stock Selection Model Performance Review: Assessing the Drivers of</u> Performance in 2012

January 2013: Research Brief: Exploiting the January Effect Examining Variations in Trend Following Strategies

December 2012: <u>Do CEO and CFO Departures Matter? - The Signal Content of CEO and CFO Turnover</u>

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

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

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

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

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: <u>S&P Capital IQ Stock Selection Model Review – Understanding the Drivers of</u> 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

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: 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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