

Investing in a World with Increasing Investor Activism

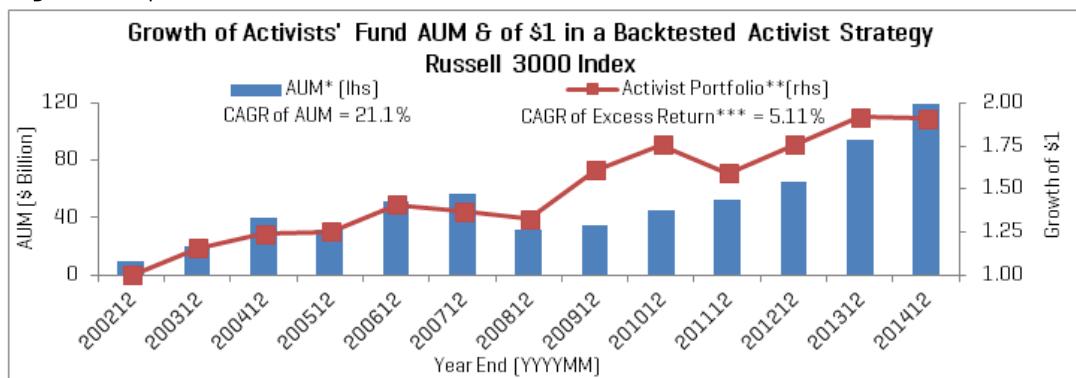
Higher Return of Cash but Operating Metrics Unchanged

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Investor activism has gained mainstream acceptance as activists with larger-than-life personas have waged a string of successful campaigns. Activist hedge funds' assets under management [AUM] have swelled to \$120 billion, an increase of \$30 billion in 2014 alone.¹ It was among the best performing hedge fund strategies in 2014 as well as over the last three- and five-year periods.¹ In this report, we explore an investment strategy that looks to ride the momentum surrounding the announcement of investor activism. We further explore what, if any, changes to targeted companies activists are able to influence.



* AUM does not include net asset flows; ** A monthly rebalancing capitalization-weighted portfolio that looks back 24-months to form portfolios where minimum stock price of targeted firms > \$5; *** excess return is in excess of Russell 3000 index; Source: S&P Capital IQ Quantamental Research as of 5/15/2015 and Hedge Fund Research. Backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Past performance is not a guarantee of future results.

Our findings indicate:

- A capitalization-weighted strategy of investing in targeted firms upon the filing of a Schedule 13D² and held for one month outperformed the market and the targets' control group³ by 2.64% and 1.75%, respectively, with significance at the 1% level.
- A capitalization-weighted monthly rebalancing strategy of investing in targets by looking back 24 months to form portfolios produced an annualized outperformance of 8.16% after controlling for common drivers of equity returns with significance at the 1% level.⁴
- Relative to their peers, pre-activism, targets typically [i] underperformed [ii] had slower YoY revenue growth [iii] had lower total capital return yield [iv] were more profitable [v] and had similar levels of operating efficiency.
- Two years post-activism⁵, financial characteristics of targeted firms did not show improvement but targets' total capital return yield⁶ and financial leverage were higher.

¹ <http://www.pionline.com/article/20150224/ONLINE/150229936/activist-hedge-fund-assets-increase-269-over-last-5-years-8212-aima-paper>

² <http://www.sec.gov/answers/sched13.htm>

³ Targets' control group is matched on market capitalization, book-to-market ratio and industry dimensions

⁴ See "On Persistence in Mutual Fund Performance" by Carhart 1997

⁵ Inferences do not change when we look at financial characteristics three or four years post-activism

⁶ Total capital return yield = [shares buyback + dividends paid] / market capitalization

Activist Investors

Activist investors in a sense are today's version of the 1980's corporate raiders. Modern activists do not typically take control of an entire firm. Rather, activists endeavor to exert pressure on a target company's management by purchasing a substantial equity stake and then use that pressure to get management to effect financial and other corporate changes. Corporate changes commonly demanded by activists include improvement in operating efficiency, distribution of excess cash, cost-cutting and share repurchase.

Activist campaigns range from the benign such as engaging in management communication or request for board representation to those that are more hostile, such as threatening to launch proxy fight or takeover. S&P Capital IQ's investor activism dataset has identified 9 tactics and 12 objectives that are deemed most representative of investor activism [See Section 4 at the end of the paper for details].

We examine two investment hypotheses: [i] Over the short-horizon, targets' stock returns will be positively impacted reflecting the potential unlocking of shareholder value [ii] Over the long-horizon, successful activism campaigns warrant additional excess returns through the realization of those value-adding corporate changes.

1. Activism and Returns

In order to determine if investors could historically have realized excess returns from merely following activists, we explore the impact of activism on targets' short- and long-horizon returns. Short-horizon is defined as one month or less. Long-horizon is defined as longer than one month.

1.1 Short-Horizon Return Analysis

We conduct an event study to analyze short-horizon performance of a portfolio of targeted firms.⁷ The event date (t_0), signifying commencement of activism, is based on SEC Schedule 13D filing dates. Excess returns for targeted firms are calculated using the following two asset pricing models:

- Market Adjusted Return Approach: Raw returns of targeted firms are adjusted by the return of the Russell 3000 index, which we use as a proxy for the market.
- Peer Adjusted Return Approach: Raw returns of targeted firms are adjusted by the returns of targets' peers. We identify peers of targeted firms along market capitalization, book-to-market ratio and industry [GICS level 3]⁸ dimensions following the framework of Daniel et al. [1997]. Targets' peers effectively serve as a control group.

Excess returns are calculated using both models over the following three event windows: [i] event window $[t-23, t+23]$ ⁹, which is from 23 trading days prior to, through 23 trading days after the event date [ii] post-event window $[t_0, t+23]$, which is from event date to 23 trading days after [iii] lagged window $[t+2, t+23]$, which is from 2 trading days post-event date to 23 trading days post-event date. As an investability check, only firms with stock price greater than \$5 are included in the

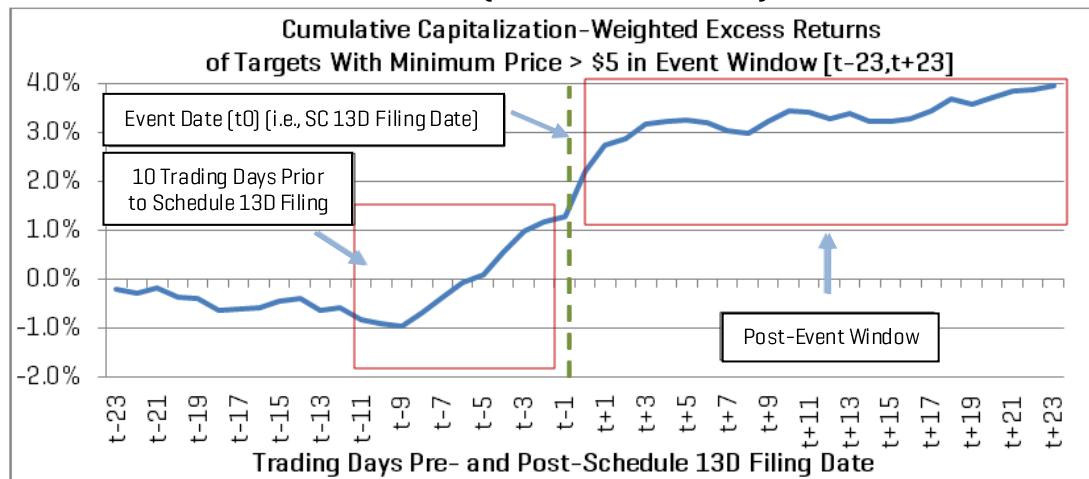
⁷ An event study examines the behaviors of stock returns around corporate events. See "The Adjustment of Stock Prices to New Information" by Fama et al. 1969

⁸ We use industry group (GICS level 2) when the number of a target's peers is less than six

⁹ We make the assumption that there are 23 trading days in a month

analysis.¹⁰ Holding a portfolio of targeted firms has historically yielded economically significant outperformance over the period Jan. 1997 – Mar. 2015 [see Figure 1].¹¹ The average market-adjusted return was 3.87% during the entire event window [$t-23, t+23$], of which 2.64% occurred during the post-event window [$t_0, t+23$] with significance at the 1% level [see Figure 1]. In Figure 1, the green dotted line denotes the event date. The red enclosed box to the right of the event date plots the cumulative market-adjusted returns during the post-event window [$t+1, t+23$]. The red enclosed box to the left of the event date displays the cumulative market-adjusted returns ten trading days prior to the event date [$t-10, t-1$]. We tend to attribute the increase in returns during this window to the last minute accumulation by activists prior to their filing of Schedule 13D and to information leakage whether unintentionally or otherwise of the impending activism.

Figure 1: Cumulative Backtested Returns of Targets in Event Window [Trading Days]
Russell 3000 [Jan. 1997 – Mar. 2015]



Source: S&P Capital IQ Quantamental Research as of 5/15/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results. Past performance is not a guarantee of future results

A more conservative measure of what an investor might realize would be to assume that an investor could not enter a position immediately. In this part of the analysis, we examine the cumulative daily excess returns in the window [$t+2, t+23$]. The average market-adjusted capitalization-weighted return during this period was 1.15 % with significance at the 1% level [See Exhibit 1].

We also show median abnormal trading volumes (relative to past one-year trading volumes) and median short interest to shares outstanding ratio in the event window for targets. In line with intuition, trading volumes in the window ten trading days prior to Schedule 13D filings had the highest abnormal volumes. Unsurprisingly, the greatest abnormal volume was observed on the event date. Post-Schedule 13D filings, trading volumes quickly reverted to its normal levels. Short

¹⁰ <http://www2.cfo.com/risk-compliance/2003/12/how-low-is-too-low/>

¹¹ Outperformance over the Russell 3000 index

interest as a percentage of shares outstanding stayed approximately at the same level throughout the event window, albeit in the post-event window, the ratio did slightly increase [See Figure 2].

**Exhibit 1: Short-Horizon Capitalization-Weighted Backtested Return Analysis
of Targeted Firms with Minimum Stock Price of Targets > \$5
Russell 3000 [Jan. 1997 – Mar. 2015]**

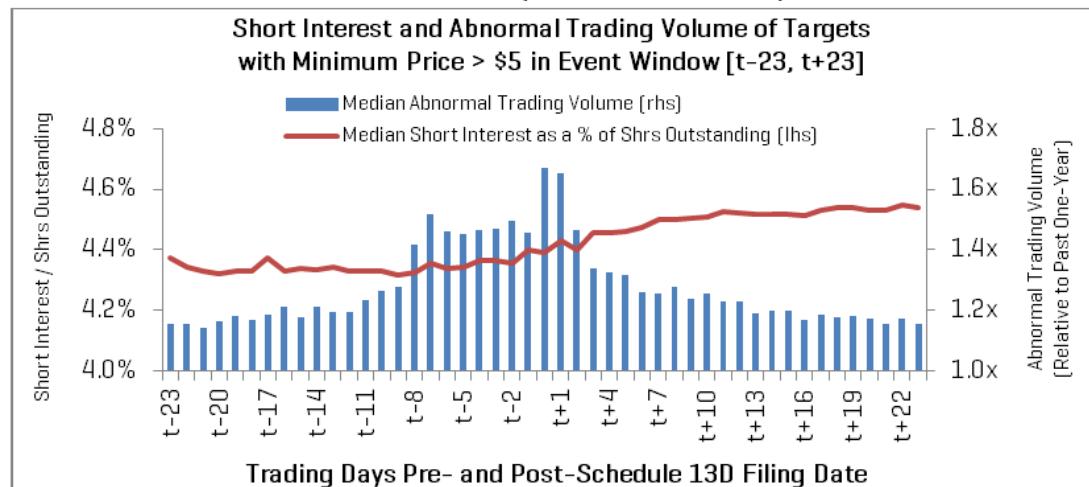
Event Window [Trading Days]	Mkt-Adjusted Average Excess Returns	Mkt-Adjusted Median Excess Returns	Hit Ratio Average Excess Returns	Count of # of Events
[t-23, t+23]	3.87% ***	3.34% ***	60.1% ***	1218
[t0, t+23]	2.64% ***	1.69% ***	57.7% ***	1218
[t+2, t+23]	1.15% ***	0.39% *	52.0%	1218

Event Window [Trading Days]	Peers' Adjusted Average Excess Returns	Peers' Adjusted Median Excess Returns	Hit Ratio Average Excess Returns	Count of # of Events
[t-23, t+23]	3.02% ***	1.74% ***	56.1% ***	1195
[t0, t+23]	1.75% ***	1.26% ***	55.2% ***	1195
[t+2, t+23]	0.48% *	0.01%	50.0%	1195

***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively

Source: S&P Capital IQ Quantamental Research as of 5/15/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

**Figure 2: Short Interest Ratio and Abnormal Trading Volume
in Event Window [Trading Days]
with Minimum Stock Price of Targets > \$5
Russell 3000 Index [Jan. 1997 – Mar. 2015]**



Source: S&P Capital IQ Quantamental Research as of 5/15/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of

any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results. Past performance is not a guarantee of future results

1.2 Calendar-Time Return Analyses

The Calendar-Time method, also known as Jensen's alpha, is used to assess long-horizon returns.¹² In this analysis, we examine a portfolio of targeted firms over variable look-back [formation] periods and examine their monthly holding period excess returns. For instance, at month t for the 24 months look-back window, this portfolio includes targeted firms that have had Schedule 13D filings within the past 24 months of month t. The variable look-back periods are chosen such that there are a sufficient number of targeted firms in the portfolio such that returns are more attributed to activism than to stock specificity.

We show both capitalization- and equal-weighted portfolio returns. Using capitalization-weighted portfolio returns mitigates the likelihood that portfolio returns are driven by price actions of a handful of micro-caps. As an investability check, only targeted firms with stock price greater than \$5 are included in the analysis.¹³ We control the returns of the targets for common drivers of equity returns: market, size, value, and price momentum.¹⁴

The average monthly excess returns for capitalization-weighted [equally-weighted] portfolios ranged from 0.62% [0.51%] to 0.68% [0.61%] with significance at the 1% level [Exhibit 2]. In Exhibit 2, the sensitivities to the market risk premium were close to 1.0 suggesting that, on average, returns of the targets move no more or less extreme than the returns of the market.¹⁵ The positive sign on the sensitivities to the size risk premium indicated that returns of the targets increased when small market capitalization firms outperformed large market capitalization ones.¹⁶ One might also infer that activists tend to target small capitalization companies. The sensitivities to the valuation risk premium were generally not significant.¹⁷ This indicates that activists are not value players. From a risk-based perspective, the lack of statistical significance signifies that the targets were not in financial distress or inexpensive in relation to their peers. This result is further reinforced when we examine pre- and post-activism financial characteristics of targeted firms. The sensitivities to the price momentum risk premium were negative suggesting that returns of the targets decreased when high momentum firms outperformed low momentum firms in the past 12 months [see Exhibit 2].¹⁸ The monthly hit ratio is the percent of months where the excess returns of the portfolios were positive after taking into account common drivers of equity returns.

¹² Jensen's alpha is used to determine excess returns over expected returns from an empirical asset pricing model. See "The Performance of Mutual Funds in the Period 1945 – 1964" by M. C. Jensen 1968

¹³ <http://ww2.cfo.com/risk-compliance/2003/12/how-low-is-too-low/>

¹⁴ See "On Persistence in Mutual Fund Performance" by Carhart 1997

¹⁵ Market risk premium is the monthly Russell 3000 returns in excess of 1-month Treasury bill

¹⁶ Size risk premium is the monthly quintile spread sorted in ascending order where firms with the smallest market capitalization are in the top quintile [See Section 4 Data]

¹⁷ Valuation risk premium is the monthly quintile spread sorted in descending order where firms with the least expensive valuation are in the top quintile [See Section 4 Data]

¹⁸ Price momentum risk premium is the monthly quintile spread sorted in descending order where firms that have outperformed the most in terms of returns are in the top quintile [See Section 4 Data]

**Exhibit 2: Long-Horizon Capitalized- and Equal-Weighted Backtested Returns Analysis
With Minimum Stock Price of Targets > \$5
Russell 3000 [Jan. 1997 – Mar. 2015]**

	Portfolios formed by looking-back 12-mths and rebalanced mthly		Portfolios formed by looking-back 24-mths and rebalanced mthly		Portfolios formed by looking-back 36-mths and rebalanced mthly	
	Cap-Weighted	Equal-Weighted	Cap-Weighted	Equal-Weighted	Cap-Weighted	Equal-Weighted
Annualized Alpha ¹	7.79%	6.21%	8.16%	6.17%	7.43%	7.36%
Average Mthly Alpha	0.65% ***	0.52% ***	0.68% ***	0.51% ***	0.62% ***	0.61% ***
Market Beta	1.00 ***	1.05 ***	1.05 ***	1.08 ***	1.04 ***	1.07 ***
Size Beta	0.40 ***	0.56 ***	0.30 ***	0.58 ***	0.36 ***	0.64 ***
Valuation Beta	0.00	0.02	-0.03	0.15 ***	-0.09	0.11 *
Price Momentum Beta	-0.29 ***	-0.34 ***	-0.12 *	-0.24 ***	-0.13 **	-0.25 ***
Hit Ratio FF4-Alpha ²	56.6% **	59.4% ***	64.4% ***	60.7% ***	63.0% ***	63.0% ***
Average Mthly Count	54		96		131	

***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively

1: Annualized from average monthly alpha – see numbers from the row below; 2: In the spirit of Fama-French Four Factor Model, but return spreads are from S&P Capital IQ's Alpha Factor Library (See Section 4 Data)

Source: S&P Capital IQ Quantamental Research as of 5/15/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

1.3 Using 13F to Complement 13D

Often, activists accumulate positions in targets prior to Schedule 13D disclosure. To examine the impact of pre-disclosed positions of targets on their subsequent returns, we analyze holdings disclosure of targets contained in Form 13F¹⁹ for the calendar quarter prior to a Schedule 13D filing. Form 13F is a SEC mandated form that requires institutional asset managers who have \$100MM+ AUM to file security holdings [and other information] within 45 days of every calendar quarter end. To correct for the potential look-ahead bias, a forty-five day lag is applied to the quarter end date to serve as a proxy for Form 13F's filing date.

Next, we examine market-adjusted returns in the following three windows [i] the period between the filing of Form 13F and 1-month post the filing of Schedule 13D, [13F, 13D + 1Mth] [ii] the period between the filing of form 13F and 10 calendar days [the 10 days are used to separate out the return effects from the last-minute accumulation by investors before they have to file the Schedule 13D] before the filing of Schedule 13D, [13F, 13D-10] [iii] the period between the filing of Schedule 13D and one month thereafter, [13D, 13D + 1Mth]. In other words, we decompose the largest window [13F, 13D + 1Mth] into two sub-windows, [13F, 13D-10] and [13D, 13D + 1Mth].

Exhibit 3 indicates that the majority of the excess return was realized after Schedule 13D filings. The average market-adjusted return during the window [13F, 13D + 1Mth] was 4.62% with significance at the 1% level. The average market-adjusted return post-Schedule 13D filing was

¹⁹ <http://www.sec.gov/answers/form13f.htm>

3.24% with significance at the 1% level [see Exhibit 3]. In fact, the average excess return between the filing of Form 13F and 10 days prior to the filing of Schedule 13D [13F, 13D-10] was 0.09% but it was not statistically significant at the 10% level. This suggests that commencement of activism, as signaled by Schedule 13D filings, may have been the catalyst for the excess return in the longer time window [13F, 13D + 1Mth]. If this were not the case, we would have expected to see excess return with statistical significance during the sub-window [13F, 13D-10]. It also suggests the difficulty in using the information contained in 13Fs to predict a subsequent SC 13D filing.

Exhibit 3: Capitalization-Weighted Backtested Returns of Targets

Whose Positions Were Pre-Disclosed

in Form 13F with Minimum Stock Price of Targets > \$5

Russell 3000 Index

[Jan. 2004¹ – Mar. 2015]

Event Window [Trading Days]	Average Mkt-Adjusted Returns of Targets	Hit Ratio	# of Firms
[13F, 13D + 1Mth]	4.62% ***	61.5% **	104
[13F, 13D-10]	0.09%	54.8%	104
[13D, 13D + 1Mth]	3.24% ***	61.5% **	104

1: Form 13F data starts in Q1 2004

***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively

Source: S&P Capital IQ Quantamental Research as of 5/15/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

One may argue that since Form 13F needs to be filed within 45 days of a calendar quarter end, an investor could file anytime within that time frame. Moreover, the insignificant result in the window [13F, 13D-10] may be attributed to the fact that the excess return occurred within the 45-day window. Again, we believe that in order for activists to maintain anonymity and thus mitigate the cost of free riders, they generally wait until the very last minute to reveal ‘their hand’ and file at the end of the 45-day window. Hence, the date after applying the 45-day lag in our opinion acts as a good date proxy when the information in the Form 13F becomes available in the public domain.

1.4 Time-Variant Nature of Activism Returns

It is also natural to ask whether returns to activist strategy have changed over time. Our sample data spans the Jan. 1997 – Mar. 2015 time period. We split the period into two [approximately] equal sub-periods Jan. 1997 – Dec. 2006 and Jan. 2007 – Mar. 2015. Next, we apply our long-horizon return analysis from section 1 to the sub-periods.

A strategy of investing in targeted firms after activist involvement also historically showed economically significant outperformance in the two sub-periods. The results were significant at least at the 10% level for all look-back horizons [see Exhibit 4]. Average monthly excess returns in the earlier sub-period were larger, but average differences between the two sub-periods were not statistically significant at the 10% level. On the other hand, volatilities (i.e., standard deviation) of

the returns were larger in the earlier sub-period and the differences between the sub-periods were significant at the 1% level.

Exhibit 4: Long-Horizon Capitalization-Weighted Backtested Returns in Sub-Periods with Minimum Stock Price of Targets > \$5
 Russell 3000 Index [Jan. 1997 – Mar. 2015]

Portfolio Formed by Looking-Back T-months Horizon [in Mths]	Avg Mthly Excess Returns Jan. '97 – Dec. '06	Avg Mthly Excess Returns Jan. '07 – Mar. '15	Difference in Avg Mthly Excess Returns ¹	Difference in Volatility of Mthly Excess Returns
12	0.73% *	0.58% **	0.15%	1.31% ***
24	0.84% ***	0.50% **	0.34%	1.17% ***
36	0.69% **	0.50% **	0.20%	1.07% ***

***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively;

1: Results from Jan. '97 to Dec. '06 less results from Jan. '07 to Mar. '15; Source: S&P Capital IQ Quantamental Research as of 5/15/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

1.5 Summary

Our results show that a strategy of holding activists' targeted firms, constructed after Schedule 13D filings, has historically yielded short- and long-horizon, economically and statistically significant outperformance, even after controlling for common drivers of equity returns.

2. Pre-Activism Characteristics of Targets

What types of companies are commonly targeted by activists? We explore pre-activism characteristics of targets using targets' peers as a control group. The targets' peers are matched along industry, size, and value dimensions. For each target, a group of peers within the same industry level [GICS level 3] is identified. The industry-matched peers are then filtered on 3 x 3 sorts on market capitalization, a proxy for size and book-to-market ratio, a proxy for value. The medians of targets' and peers' characteristics are compared.

2.1 Size

Targets tended to be small-capitalization firms.²⁰ The median size of activist targets was \$721MM whereas median size of targets' peers was \$1,881MM. The median difference between the targets and their peers was statistically significant at the 1% level [see Exhibit 5]. This is in line with intuition, since accumulating 5+% shares of large capitalization firms would mean committing a substantial portion of an activist's AUM.

2.2 Valuation

Targets were no more or less expensive than their peers.²¹ The median book-to-market ratio of targets was 0.46 and the median book-to-market ratio of targets' peers was 0.46. The difference

²⁰ For the size characteristic, the matching occurs along value and industry dimensions only.

²¹ For the book-to-market ratio characteristic, targets' peers are matched along market-cap and industry dimensions only.

was virtually zero. From a risk-based perspective, this suggests that targets were no more or less financially distressed than their peers [see Exhibit 5].²²

2.3 Price Momentum

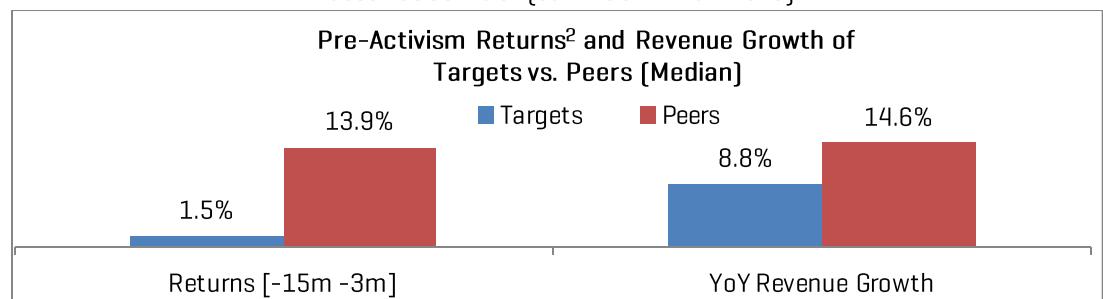
Targets underperformed by approximately 12% relative to their peers between the time period 15 months and 3 months prior to [-15m, -3m] Schedule 13D filings [See Figure 3]. It is interesting that despite the recent underperformance, targets did not appear more or less expensive per the above discussion, implying targets may have been somewhat overvalued and recently corrected.

2.4 YoY Revenue Growth Rate

Targets had lower year-over-year [YoY] revenue growth rate. The median YoY revenue growth rate for activist targets was 8.8% whereas the median YoY revenue growth rate for targets' peers was 14.6%. The median figures are shown on the right side of Figure 3. The median growth rate difference between the two groups was significant at the 1% level [see Exhibit 5].

Figure 3: Pre-Activism Characteristics of Targets¹

Russell 3000 Index [Jan. 1997 – Mar. 2015]



1. Pre-activism: 12-months prior to the SC 13D filings; 2. Returns [-15m -3m]: total returns between 15- and 3- months prior to 13D filing; Source: S&P Capital IQ Quantamental Research as of 5/15/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

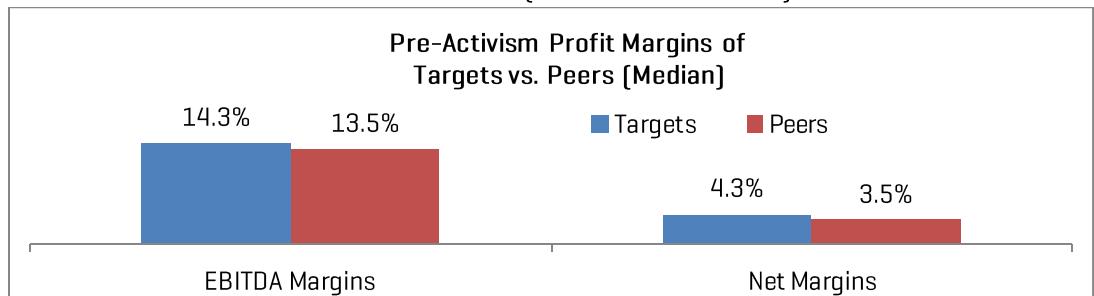
2.5 Profitability and Efficiency

Targets were more profitable [i.e., EBITDA and net margins] than their peers and had the same level of operating efficiencies [i.e., cash-flow-to-lagged-one-year-assets and EBITDA-to-lagged-one-year-assets] as their peers. The median EBITDA and net margins for targets were 14.3% and 4.3%, respectively, and they were 0.76% and 0.78% higher than the median EBITDA and net margins for targets' peers. The differences were significant at the 1% level. The median cash-flow-to-lagged-one-year-assets and EBITDA-to-lagged-one-year-assets of the targets were 5.6% and 13.0%, respectively, whereas they were 5.9% and 13.5% for targets' peers. Targets and their peers were virtually operating at the same efficiency. Activists' targets were financially sound at commencement of activism [See Exhibit 5 for tabular results].

²² Fama's interpretation: firms with relatively higher industry-neutral book-to-market ratio in a risk-based perspective are commonly interpreted as firms in financial distress whether transitory or more permanent

Figure 4: Pre-Activism Characteristics of Targets

Russell 3000 Index [Jan. 1997 – Mar. 2015]



Source: S&P Capital IQ Quantamental Research as of 5/15/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

2.6 Total Capital Return Yield

Targets had lower total capital return yield relative to their peers. The median yield for targets was 0.84% whereas median yield for targets' peers was 2.03%. The median yield difference between the two groups was statistically significant at the 1% level. Targets were returning less cash to their shareholders in the forms of buybacks and dividends relative to their peers.

Exhibit 5: Pre-Activism Characteristics of Targeted Firms

Where Minimum Price of Targets > \$5

Russell 3000 Index [Jan. 1997 – Mar. 2015]

Category	Measure	Targets' Characteristics [Median Ratio]	Diff in Characteristics: Targets vs. Their Peers ¹ [Diff of Median Ratios]	# of Firms
Size	Mkt Cap [\$ MM]	721	-1160 ***	1195
Value	Book to Market	0.46	0.00	1193
Price Momentum ²	Rets [-15m,-3m]	1.5%	-12.4% ***	1211
Growth	YoY Rev Growth	8.8%	-5.80% ***	1111
Efficiency	$(NI + D\&A)_t / Assets_{t-1}$	5.6%	-0.29%	1120
	EBITDA _t / Assets _{t-1}	13.0%	-0.46%	1071
Profitability	EBITDA / Revenue	14.3%	0.76% ***	1109
	Net Income / Revenue	4.3%	0.78% ***	1159
Capital Structure	Debt / (Debt + Equity)	31.0%	1.07%	1159
Total Capital Return	[Divs + BuyBack] / Cap	0.84%	-1.19% ***	1143

***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively, using Wilcoxon for diff in medians

1. Median ratio of a portfolio of targets less median ratio of a portfolio of targets peers; 2. 12-mths return between 15-mths and 3-mths prior to 13D filing; Source: S&P Capital IQ Quantamental Research as of 5/15/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

2.7 Summary

Activists have historically targeted firms that were smaller in market-capitalization, had slower YoY revenue growth rate, had underperformed in stock return, and had lower total capital return yield in relation to their peers. Targeted firms, however, did not suffer from low margins nor were they in financial distress relative to their peers.

3. Post-Activism Characteristics of Targets

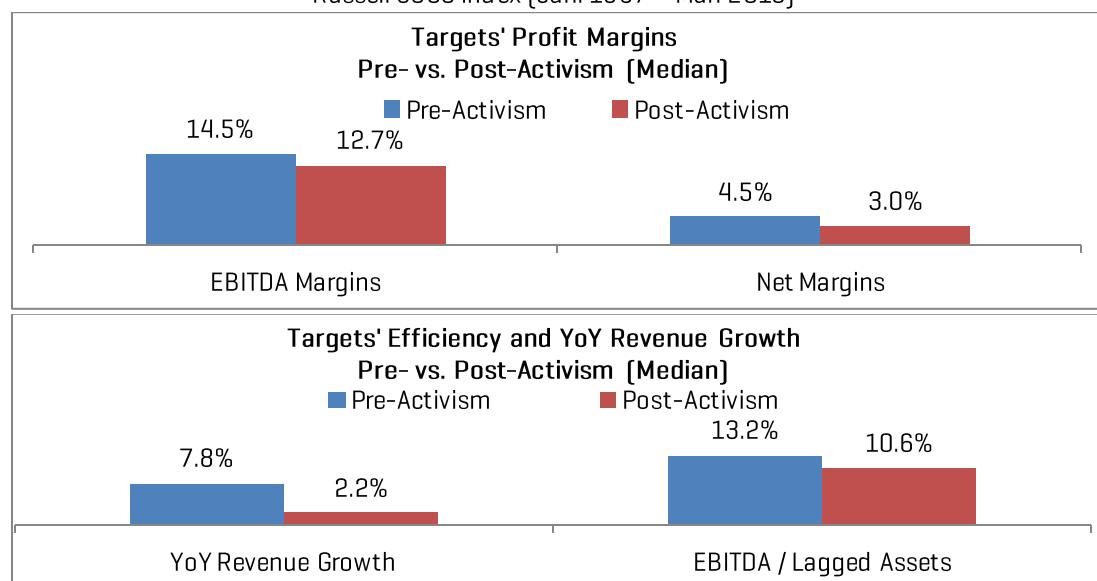
The next logical question to ask is the about impact of activism on targets' financial characteristics. The pre-activism metrics are 12 months prior to commencement of activism and the post-activism metrics 24 months after.²³ In order to make results more intuitive, results in this section are not industry-relative. See appendix A.4 for industry-relative ones. Inferences do not change after this adjustment.

Targets' financial health such as revenue growth, profitability and efficiency do not show improvement post-activism. See Figure 5. Our results do suggest that targets increased financial leverage and their total capital return yield post-activism. We infer that two of the ways that activists have historically unlocked shareholders' value were by prompting targets' management to return additional cash to shareholders in the forms of stock buybacks and dividends and by lowering targets' cost of capital via additional financial leverage (see Exhibit 6 for tabular results of targets' pre- and post-activism characteristics).

Figure 5: Comparison of Targets' Pre- vs. Post-Activism Characteristics

Where Minimum Price of Targets > \$5¹

Russell 3000 Index [Jan. 1997 – Mar. 2015]



1. pre-activism numbers in this section might be slightly different from those in section 2 due to data attrition as we are comparing financial metrics across time.

Source: S&P Capital IQ Quantamental Research as of 5/15/2015. Past performance is not a guarantee of future results.

²³ We also see the lack of improvement in financial metrics 36- and 48-months post-activism

Exhibit 6: Pre- and Post-Activism Comparison of Targets' Characteristics¹

Where Minimum Price of Targets > \$5

Russell 3000 Index [Jan. 1997 – Mar. 2015]

Category	Measure	Characteristics of Targets Post-Activism [Median Ratio] ²	Diff in Characteristics of Targets from Pre-Activism [Diff of Median Ratios] ³	# of Firms
Size	Mkt Cap [\$ MM]	682	-116 **	631
Value	Book to Market	0.53	0.05 **	614
Growth	YoY Rev Growth	2.24%	-5.60% ***	598
Efficiency	$(NI + D\&A)_t / Assets_{t-1}$	3.83%	-1.79% ***	603
	$EBITDA_t / Assets_{t-1}$	10.62%	-2.53% ***	579
Profitability	EBITDA / Revenue	12.66%	-1.84% ***	595
	Net Income / Revenue	2.97%	-1.52% ***	618
Capital Structure	Debt / [Debt + Equity]	38.87%	4.59% **	616
Total Capital Return	[Divs + BuyBack] / Cap	1.52%	0.30% **	599

***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively

1. Pre-activism is defined as 12 months prior to 13D filings and post-activism 24 months after

2. Median pre-activism financial metrics in this section might be slightly different from those in the Section 2, pre-activism financial characteristics of targets, due to data attrition as we are comparing financial metrics across time here

3. Difference in median ratio = post-activism median ratio less pre-activism median ratio

Source: S&P Capital IQ Quantamental Research as of 5/15/2015. Past performance is not a guarantee of future results.

4. Data

This study uses SEC Schedule 13D filing dates as commencement of investor activism. The Schedule 13D filings that are used in this study are drawn from S&P Capital IQ's investor activism data set, which is a forthcoming new component of S&P Capital IQ's Transactions data package. S&P Capital IQ's investor activism data set does not consider all 13Ds as investor activism. We only include Schedule 13Ds that are filed by investors (see definition below) who have ever employed one or more of the tactics listed below and one or more of the following objectives to bring about changes in their targeted companies (descriptions of the tactics and the objectives are below).

The data collection team for the investor activism dataset starts with all available Schedule 13Ds. Then, they manually identify and collect investors who have ever engaged in at least one of the nine S&P Capital IQ identified tactic types and at least one of the twelve objective types (see Exhibit 9) from Schedule 13Ds, proxy filings, press releases and so forth. Then, we filter Schedule 13D filings down to only those that are filed by the aforementioned subset of investors. Next, the remaining Schedule 13D filings are filtered on Russell 3000 index. If a company has multiple filings, the first instance of the filings is included and subsequent filings on the same company are discarded unless the adjacent filings are at least 36 months apart. The reasoning here is that we deem the first instance of the filing as market-moving news. Both tactic and objective lists are still being finalized and this data set will be forthcoming to Xpressfeed²⁴, a data feed management solution provided by S&P Capital IQ. The holdings data from Form 13F are from S&P Capital IQ Ownership data package and are available in Xpressfeed. The holdings data starts in 2004.

²⁴ <https://www.capitaliq.com/home/what-we-offer/how-you-can-get-it/data-feeds/xpressfeed.aspx>

Tactics and Objectives

Tactic[s]: A Tactic is an approach adopted by an activist to persuade the target firm to meet the activist's demands. Activist can use one tactic or a combination of many tactics to achieve its goal[s].

- **Non-confrontational Communication and Engagement:** This tactic is used when activist discloses initial accumulation of a company's securities and attempts to engage management in discussions on their expectations for corporate change.
- **Non-confrontational Request for Board Representation:** This tactic is given when an activist, as part of initial rounds of communication, seeks 'board representation' as a means to advance their agenda.
- **Threat to Launch Proxy Fight:** This tactic is used when an activist only threatens a proxy fight without actually filing proxy materials with the regulatory bodies. This tactic is less expensive than the proxy fight.
- **Proxy Fight/Contest:** This tactic is used when an activist starts soliciting proxies from the shareholders by filing proxy statements. In this tactic, the activist prepares, files, and delivers a proxy statement to other shareholders to support its nominees or proposals.
- **Shareholder Proposals:** A shareholder proposal is a recommendation or requirement desired by a shareholder or group of shareholders, specifying a change in corporate policy or disclosure. It is moved at a company's annual shareholder meeting and voted on by the shareholders.
- **Just Vote No:** This tactic is used by an activist to encourage fellow stockholders to vote against a corporate proposal or withhold votes from an incumbent director. A "Just Vote No" campaign can be less expensive and less time consuming than a traditional proxy solicitation and can be waged without the need to prepare, file and deliver a proxy statement.
- **Threat to Launch Legal Suit:** This tactic is given when an activist threatens to initiate litigation proceedings against the company or its directors for breach of fiduciary duties without actually filing a law suit.
- **Legal Proceeding:** This tactic is used when an activist files a lawsuit against the company or its directors for breach of fiduciary duties/non-compliance of laws etc.
- **Takeover Bid:** This tactic is used if an activist, as a part of activism, launches a takeover bid, makes an offer to acquire the target company, makes a tender offer, pressures target towards spin-off, sale or break-up of the company or supports a merger proposal by third party.

Objective[s]: Objective is a pre-set goal[s] set by an activist with the target company. This usually explains the area of focus of the activist at broader level. Objectives are categorized into following 12 different ways:

- **Engage Management:** The Engage Management objective is selected when the activist intends to engage or discuss issues with the management of the company, such as about an undervalued stock or performance related issues in general.
- **Corp. Gov. - Board Matters:** The CG-Board Matters objective includes demands / proposals made by the activist related to the board of the target, such as declassifying board, nomination to the board, changing board size, board independence, etc.
- **Corp. Gov. - Voting Matters:** The CG-Voting Matters objective includes demands / proposals made by the activist on voting mechanism used by the target in contested elections and related matters.

- **Corp. Gov. - Takeover Defense Matters:** The CG-Takeover defense matters objective includes all the takeover defense matters related to the target. Activist may seek some mechanisms to be implemented / repealed.
- **Corp. Gov. - Executive Compensation Related Matters:** The CG-Compensation Related Matters objective includes all the issues related to executive compensation of the target.
- **Corp. Gov. - Other Matters:** The Corporate Governance (CG) Related Matters objective includes standard corporate governance matters not classified under the other CG related objective groups.
- **M&A Related Matters:** The M&A Related Matters objective includes matters related to mergers, acquisitions, tender offers, takeover bids, acquisition proposals, spin off, breaking up the company, asset sale, divestiture, and liquidating events, etc.
- **Strategic Matters:** The Strategic Matters objective includes all company level matters that are strategic in nature.
- **Financial Related Matters:** The Financial Related Matters objective includes all the issues related to financial reporting, auditing, dividends, share buyback, cost structure, etc.
- **Meeting Matters:** The Meeting Matters objective includes conduction of AGM/EGM and other related issues.
- **Legal Matters:** The Legal Matters objective includes legal issues: Inspection of books of records; breach of fiduciary duties; and agreements, etc.
- **Financing/Bankruptcy/Reorganization:** The Financing/Bankruptcy/Reorganization objective group includes matters related to financing by activist and seeking something in return from the target. Usually this financing may be done during times of bankruptcy/reorganization of the target or as a private placement, etc.

The financial measures are calculated using S&P Capital IQ's point-in-time (PIT) data and total returns are from S&P Capital IQ's market data. They are trimmed and then winsorized at the 0.5% and 99.5% levels. The size, valuation and price momentum monthly sector-neutral and capitalization-weighted spreads used in section 1.2.1 Calendar-Time method are from S&P Capital IQ's Alpha Factor Library (AFL), which contains 500+ stock selection signals with associated metrics such as information coefficients and factor spreads. All factor performance is downloadable by time period, regime, country, and sector dimensions.

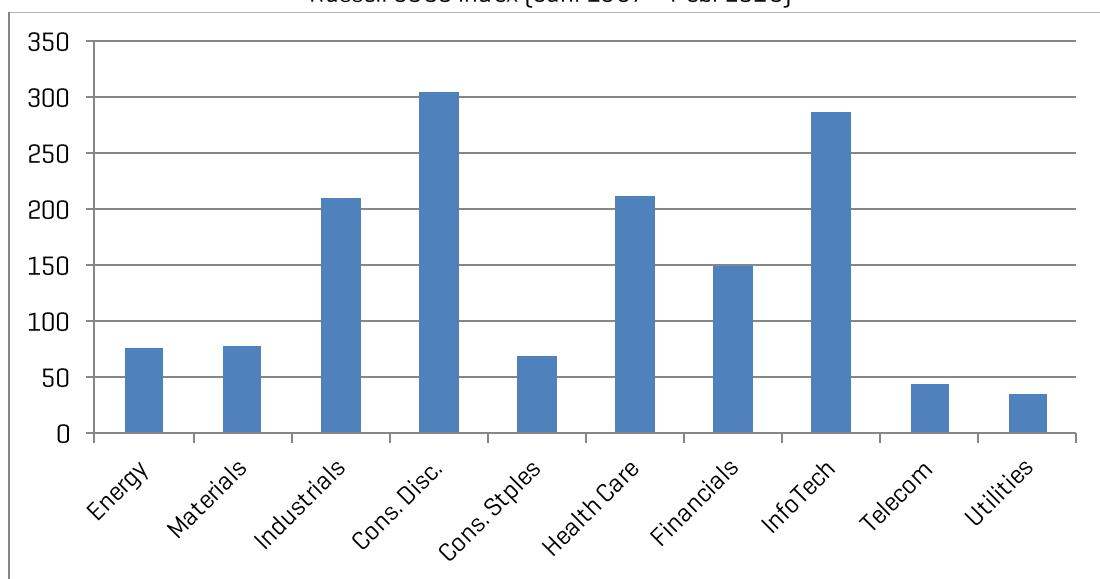
5. Conclusion

Our results indicate that holding a portfolio of activists' targeted firms has historically yielded short- and long-horizon, economically and statistically significant outperformance after controlling for common drivers of equity returns. Activists targeted firms in general were smaller in market-capitalization, had slower YoY revenue growth rate, had underperformed, and had lower total capital return yield relative to their peers. Targeted firms, however, did not suffer from low margins nor were they in financial distress relative to their peers. There is no evidence that targets' financials improved up to 24 months post-activist involvement. We, however, did see that targets' total capital return yield and financial leverage increased suggesting that two of the ways that activists have historically unlocked shareholders' value were by prompting management to return additional cash in the forms of buybacks and dividends to shareholders and by lowering targets' cost of capital via additional financial leverage.

Appendix

A.1: Number of Schedule 13D Filings by GICS Level I¹

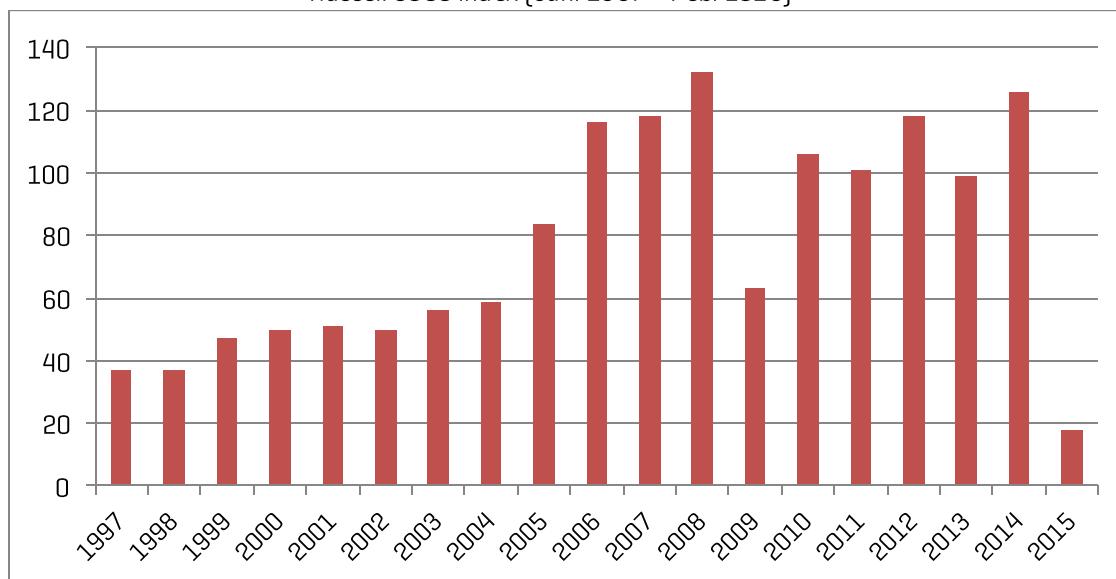
Russell 3000 Index [Jan. 1997 – Feb. 2015]



1. Input data set for the paper. See Section 4 Data for details
Source: S&P Capital IQ Quantamental Research as of 5/15/2015.

A.2: Number of Schedule 13D Filings by Year¹

Russell 3000 Index [Jan. 1997 – Feb. 2015]

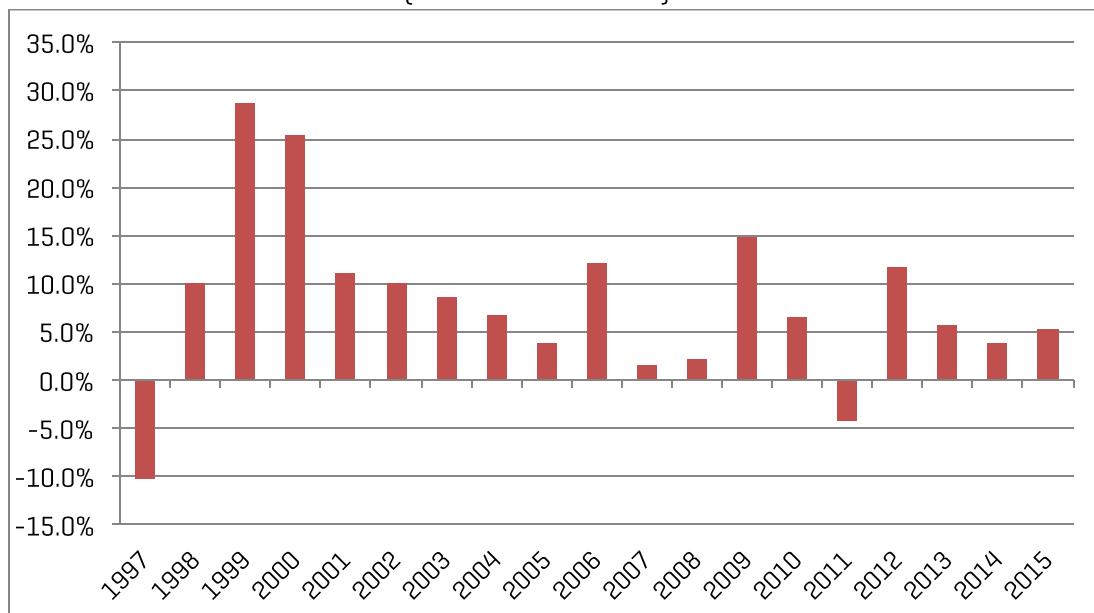


1. Input data set for the paper. See Section 4 Data for details
Source: S&P Capital IQ Quantamental Research as of 5/15/2015.

A.3: Yearly Capitalization-Weighted Backtested Excess Returns after Controlling for Market, Size, Value and Price Momentum*

Russell 3000 Index with Minimum Stock Price of Targets > \$5

[Jan. 1997 – Feb. 2015]**



* A monthly rebalancing cap-weighted portfolio that looks back 24-months to form portfolios with minimum stock price > \$5;

** Excess return for 2015 is for the first two months of the year; Source: S&P Capital IQ Quantamental Research as of 5/15/2015. For the above exhibits, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

A.4: Industry-Relative Pre- and Post-Activism Comparison of Targets' Characteristics¹

Where Minimum Price of Targets > \$5

Russell 3000 Index [Jan. 1997 – Feb. 2015]

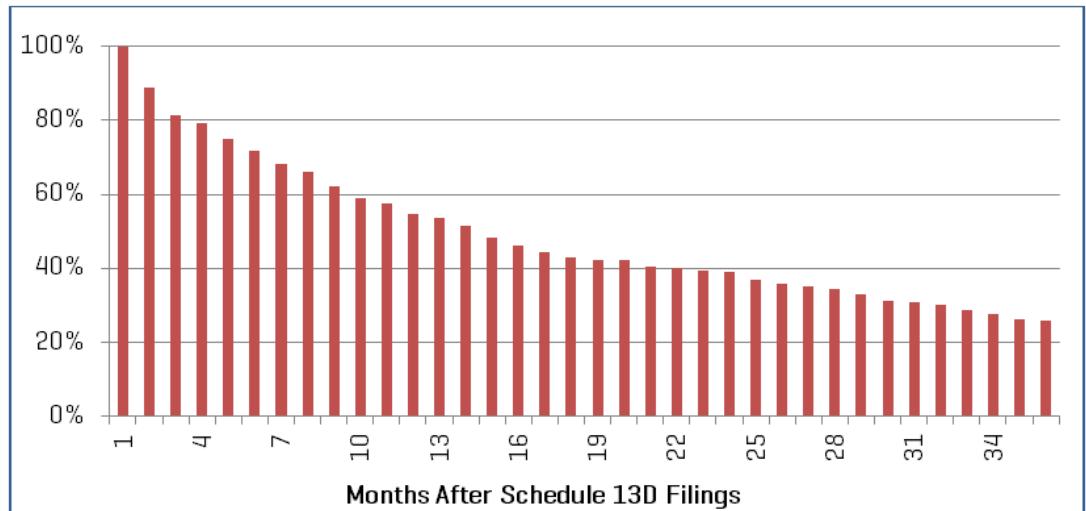
Category	Measure	Col 1	Col 2	Col 3
		Diff in Industry-Relative Characteristics of Targets from Pre-Activism [Diff of Average Ratio] ²	Diff in Industry-Relative Characteristics of Targets from Pre-Activism [Diff of Median Ratios] ²	# of Firms
Size	Mkt Cap (\$ MM)	-109	-134 ***	631
Value	Book to Market	0.10 **	0.02 *	614
Growth	YoY Rev Growth	-5.67% ***	-2.70% ***	598
Efficiency	$(NI + D\&A)_t / Assets_{t-1}$	-1.53% *	-0.57% ***	603
	$EBITDA_t / Assets_{t-1}$	-1.76% **	-1.40% ***	579
Profitability	EBITDA / Revenue	3.42%	-1.62% ***	595
	Net Income / Revenue	2.32%	-1.33% ***	618
Capital Structure	Debt / [Debt + Equity]	3.32% **	3.94% **	616
Total Capital Return	[Divs + BuyBack] / Cap	0.75% **	0.09%	599

1. Pre-activism is defined as 12 months prior to 13D filings and post-activism 24 months after

2. Difference in ratios = Industry-relative post-activism ratios less industry-relative pre-activism ratios

Source: S&P Capital IQ Quantamental Research as of 5/15/2015. Past performance is not a guarantee of future results.

A.5: % of Activists Who Still Held Some Position in Stocks
That Were Initially Disclosed in Their Schedule 13D Filings
Russell 3000 [Jan. 2004 - Feb. 2015]¹



1. Input data set for the paper. See Section 4 Data for details

Source: S&P Capital IQ Quantamental Research as of 5/15/2015.

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Our Recent Research

April 2015: [Drilling for Alpha in the Oil and Gas Industry – Insights from Industry Specific Data & Company Financials](#)

During the recent slide in oil prices, clients frequently asked us which strategies have historically been effective in selecting stocks in declining energy markets. This report answers this question, along with its corollary: which strategies work in rising energy markets? We also explore the value of oil & gas reserve data used by fundamental analysts/investors, but not used in a majority of systematic investment strategies. The analysis in this report should help both fundamental and quantitatively-oriented investors determine how to best use industry-specific and generic investment metrics when selecting securities from a pool of global oil & gas companies.

March 2015: [Equity Market Pulse – Quarterly Equity Market Insights Issue 3](#)

Driven by proprietary data and analytics from S&P Capital IQ™, Equity Market Pulse provides professional investors with insights into global equity market fundamentals and performance at a glance. Spanning developed and emerging markets in the Americas, Europe, and Asia, it provides perspective on fundamentals, valuations and investment strategy effectiveness.

February 2015: [U.S. Stock Selection Model Performance Review – The most effective investment strategies in 2014](#)

Since the launch of the four S&P Capital IQ™ U.S. stock selection models in January 2011, the performance of all four models [Growth Benchmark Model, Value Benchmark Model, Quality Model, and Price Momentum Model] has been positive and 2014 was no exception. Our models' key differentiators - distinct formulation for large cap and small cap stocks, special treatment for the financial sector, sector neutrality to target stock specific alpha, and factor diversity - enabled the models to outperform across various market environments. In this report, we review the underlying drivers of each model's performance over the 12 months ended December 31, 2014, document performance from January 2011 when the models went live, and provide full model performance history from January 1987.

January 2015: [Research Brief: Global Pension Plans – Are Fully Funded Plans a Relic of the Past?](#)

With strong equity and bond market performances over the past few years, one might assume that pension shortfalls have declined sharply. Since our [last research brief \[September 2013\]](#), funding statuses have indeed improved in the U.S. and Asia, though not in Europe [Exhibit 1]. However, while the S&P 500 Index has been making higher highs [Exhibit 2, red line], the number of S&P 500 plans with a funding status of 90% or higher has been in a sharp decline [blue bars].

January 2015: [Profitability: Growth-Like Strategy, Value-Like Returns – Profiting from Companies with Large Economic Moats](#)

Value-based strategies have been the favorite weapons in many investors' arsenals, historically yielding large returns and consistently outperforming. Most value investors focus on the price side of the equation – i.e., buying assets that are priced below their intrinsic values. Yet, there's another dimension to the value equation that has been complementary to value and just as critical in generating excess returns. Enter profitability. Profitability has historically worked as an investment strategy because instead of focusing on the cheapness of an asset it focuses on the

productiveness of an asset - i.e., its ability to generate earnings for the investor. Our results from January 1996 to August 2014 show: The S&P 500® continues to be the preeminent regional performer in terms of both financial results and price appreciation Risk and Return: Tracks the dynamics of equity market returns and volatility.

- Profitability-based strategies have historically produced excess returns on par with those generated by value-based strategies and have historically produced higher excess returns than those generated by quality and price momentum strategies.
- Profitability-based strategies have historically produced excess returns even after controlling for quality-, value- and price momentum-based strategies.
- Profitability-based strategies have historically consistently produced excess returns across different regions, time periods, and market capitalization categories.
- Highly profitable firms have historically consistently shown above average growth with two-year top- and bottom-line growth rates that are 10% and 31% higher, respectively, than those for least profitable firms.
- Profitability measures that are cleaner (i.e. higher up in the income statement such as gross profit) have historically shown higher excess returns and lower volatility than measures that are lower in the income statement (e.g., net profit).
- Gross profitability ratio has historically been 2.07x, 2.22x and 3.12x times more persistent than quality, value and momentum, respectively, after 5 years.

November 2014: [Equity Market Pulse – Quarterly Equity Market Insights Issue 2](#)

Driven by S&P Capital IQ's™ proprietary data and analytics, **Equity Market Pulse** provides professional investors with insights into global equity market fundamentals and performance at a glance. Spanning developed and emerging markets in the Americas, Europe, and Asia, it provides perspective on valuations, operating efficiency, and investment strategy effectiveness.

- The S&P 500® continues to be the preeminent regional performer in terms of both financial results and price appreciation Risk and Return: Tracks the dynamics of equity market returns and volatility.
- Investor preference for developed markets continues, as developed markets show rising P/E multiples versus the emerging markets on much stronger financial performance.
- Emerging markets appear cheap on a valuation-to-projected-growth basis, with forward P/E to earnings growth (PEG) ratios of less than half those of the developed market average.

October 2014: [Lenders Lead, Owners Follow – The Relationship between Credit Indicators and Equity Returns](#)

This paper demonstrates a strong link exists between credit events and equity returns, suggesting a potential investment strategy. Whereas previous academic work focused on ratings changes within the U.S., this analysis takes a global perspective and includes the post-financial crisis period. Shareholders should note that even in a benign credit environment Standard & Poor's Ratings Services ("S&P Ratings Services") downgraded 68 U.S. speculative grade companies in the second quarter of 2014, and forecasts the rate of speculative grade defaults to increase next year to 2.2% from 1.6% in 2014. Year to date, there have been 303 instances where credit default swap spreads have widened by more than 50 basis points.

August 2014: [Equity Market Pulse – Quarterly Equity Market Insights Issue 1](#)

Equity Market Pulse provides professional investors with insights into global equity market fundamentals and performance at a glance. Spanning developed and emerging markets in the Americas, Europe, and Asia, it provides perspective on valuations, operating efficiency, and investment strategy effectiveness. The content of the Equity Market Pulse is driven by S&P Capital IQ's fundamental data and analytics including S&P Capital IQ Estimates, Global Point-in-Time Fundamentals, and the Alpha Factor Library. The analysis is broken into four themes:

- Valuation: Analysis of valuation multiples coupled with consensus outlook for earnings and revenue growth.
- Operating Performance: Trends in operating performance with return on equity deconstructed into: net profit margins, asset turnover, and leverage
- Risk and Return: Tracks the dynamics of equity market returns and volatility.

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

In this report, we review an approach that reduces the downside risk of a trend following strategy. This new signal first separates a stock's return into its systematic and stock-specific components, and then picks stocks solely on the latter. We compare the performance of this new signal (alpha momentum) to a typical trend following strategy (total momentum) and report the following:

- Globally, alpha momentum produces higher risk-adjusted returns in five developed market countries and a global universe. In the Russell 3000, alpha momentum's annualized long-short information ratio is twice that of total momentum [Jan 1988 – April 2014].

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

Factor risk models play an important role in equity portfolio management. Portfolio managers depend upon factor risk models to obtain portfolio risk prediction and risk attribution against a group of largely orthogonal factors each with meaningful econometric explanations. S&P Capital IQ is dedicated to providing a broad set of high-quality models and products to the global asset management community. Since 2010, we have released a series of single country risk models as well as global and regional equity risk models. We are now releasing single country risk model covering China A-Shares equities,

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

On August 13, 2013, Apple's stock price rose 4.75% on high volume after Carl Icahn, a renowned activist investor, tweeted that his firm had accumulated a large position in the company. In the ensuing 6 months, the stock rose an additional 9.33% as Icahn demanded that the company add another \$50 billion to its existing stock buyback plan. Icahn backed off from this demand on February 10, 2014, but not before Apple's stock price had risen to \$528.99 from \$461.88 where it was before he embarked on the campaign. By then, the company had already aggressively repurchased its stock, including \$14 billion in a two-week stretch. As high-profiled campaigns have occurred with greater frequency and resulted in more successes, the AUM for investor activist funds has tripled to \$95 billion in 2013, 3 times the amount in 2008.

March 2014: Insights from Academic Literature: Corporate Character, Trading Insights, & New Data Sources

As part of our research process, we make a concerted effort to stay abreast of interesting white papers. Academic research papers are a rich source for new ideas and fine tuning of areas for

future work. Often they provide a launch pad for debate and exploration for our team. Our readers agree, as we regularly receive positive feedback on our academic research highlights.

In this piece we have assembled a number of interesting articles that we believe will be of broad interest to our clients, and all investment professionals – Corporate Character, Trading Insights & New Data Sources. For each article we provide a link to the article, the abstract, and a brief discussion of the article highlights and how it will be useful to fellow practitioners. It is our hope that these papers help you generate differentiated thinking, and to better serve your clients.

February 2014: [Obtaining an Edge in Emerging Markets](#)

February 2014: [U.S Stock Selection Model Performance Review](#)

January 2014: [Buying Outperformance: Do share repurchase announcements lead to higher returns?](#)

October 2013: [Informative Insider Trading – The Hidden Profits in Corporate Insider Filings](#)

September 2013: [Beggar Thy Neighbor – Research Brief: Exploring Pension Plans](#)

August 2013: [Introducing S&P Capital IQ Global Stock Selection Models for Developed Markets: The Foundations of Outperformance](#)

July 2013: [Inspirational Papers on Innovative Topics: Asset Allocation, Insider Trading & Event Studies](#)

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

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

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

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

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

December 2012: [Do CEO and CFO Departures Matter? – The Signal Content of CEO and CFO Turnover](#)

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: [Factor Insight: Earnings Announcement Return – Is A Return Based Surprise Superior to an Earnings Based Surprise?](#)

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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](#)

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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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