Growth vs. Efficiency: How Activist Hedge Funds Create Value for Public Companies

By

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Abstract

This study provides new evidence on the impact of activist hedge funds in influencing target companies' operational performances, especially distinguishing four different types of activism demands: 1) changing corporate governance, 2) restructuring balance sheet, 3) implementing growth strategies, and 4) cutting cost and divesting non-core assets. While a general improvement in operating performances is observed across activist-targeted public companies, I find that the group four hedge funds tend to have greater positive impacts as measured by operating metrics such as return on assets (ROA) and gross profit margin (GPM). The research addresses understudied areas of shareholder activism and identifies the subtle differences among different types of activist hedge funds. This analysis aims to provide passive investors a better forecast of the impact of the identified activist investor type.

Keywords

Shareholder activism, earnings forecast, equity research

Introduction

Shareholder Activism

Shareholder activism is an alternative investment strategy wherein shareholders with more than 5% of equity in a business seek to influence the firm's growth strategy, capital allocation plan, and organizational structure by engaging with the board of directors. While activism investing is less common compared to the other passive investment alternatives in the public market, such as traditional long/short and index investing, it is critical to the whole investing community due to its high profiles. Activism has evolved significantly since the idea was formalized by Benjamin Graham in 1927 when he pressured the board of directors at Northern Pipeline to return excess cash to its shareholders through a published letter to the board of directors. Graham, after being turned down by the board, launched a proxy fight to seek support from other shareholders. This campaign was the start of more interventions from hedge fund managers advocating for changes directly related to public companies' daily operations.

Despite the increasing significance of activism investing to the financial market, the strategy is understudied as past studies have failed to identify the subtler differences across various types of activist hedge funds. That is, the studies categorize activism campaigns too loosely without factoring in the obvious distinctions across hedge funds and portfolio managers. In addition, the metrics used to evaluate the impacts of activism campaigns are usually too simple to capture the whole picture. While activism is intended to improve companies' long-term operational efficiencies and asset utilization rates, immediate stock price is frequently used to evaluate the effectiveness of activist campaigns. Gompers et al. (2001) have constructed a "Governance Index" to measure the level of shareholder rights, but it also failed to account for the multi-dimensional

impacts of activists on corporate governance. The misalignment between activists' goals and measurement of the results creates unsatisfied needs for a more systematic framework to evaluate the performances of different activism strategies.

This research defines an activism campaign as the filing of an initial SEC Schedule 13D, in which the activist clearly professes its goal to influence managements' strategies in the "purpose" statement of the filing. Furthermore, this research only includes campaigns wherein the pronounced goal is to improve financial performance, instead of addressing non-financial issues such as gender diversity and racial equality.

Literature Review

The principle-agent problem at publicly listed companies arises from the separation of ownership and governance. Managers are usually incentivized to grow beyond the optimal size of their firms in order to maximize the resources under their control (Jensen 1986). Empirical research has shown that the most significant reason for adopting growth-driven strategies is the compensation structure that rewards management for absolute profit growth rather than improvements in return on invested capital (Kaiser and Young 2015). The potential threat of a lower return on investment gives rise to the emergence and popularity of shareholder activism as an alternative strategy to the traditional passive investing of long/short equity. By acquiring a block stake of over 5% in a public company, an activist investor aligns their interests with the other passive shareholders of the company. The significant equity ownership compensates the activist investor with an equity upside for their monitoring cost of due diligence work and public campaigns, and it also enables the activist to pose a credible threat to the board of directors.

Scholars have made prior attempts to investigate the effectiveness of activist investors' involvement in improving target companies' performance (April, Klein, and Zur 2009). However, the performance improvements were mostly measured using the target companies' share price at a short period of time after the activists filed for a schedule 13D, thus resulting in a mismatch between the measurement and activist investors' pronounced goals and investment horizon.

Empirical studies of activist hedge funds that also hold positions in passive investments have concluded that firms targeted by hedge funds for active purposes outperform those selected as passive investment targets; in particular, these activist positions outperform by 1.75% in excess return surrounding the 13D/G filing date (Clifford 2008). The same research also highlighted an increase in value creation at the activist target firms, in the form of operating efficiency (ROA) improvement for as much as 1.22% (Clifford 2008).

While the previous literature on activist campaigns finds that activism campaigns are associated with positive value creation and stock performance improvements, little is known about the relative performance of activism campaigns launched for different purposes, such as pushing for majority vote standard and requesting share repurchases. In addition, divergence in styles and public demands among activist hedge funds is also understudied. With shareholder activism gaining popularity and a larger dataset of activism campaigns becoming available, this research intends to investigate the effectiveness of different public demands and activist styles to identify distinctions among activist investors.

Methodology

Sample Construction

This research focuses on activist hedge funds who explicitly pronounced their intention to influence management in the SEC-required 13D filings when they passed the 5% ownership threshold. Specifically, activist hedge funds accumulating fewer than 5% of a company's equity shares are not included in the sample even if they have communicated their intentions with the management. The screening criteria ensures that the study only includes the activism transactions filed with SEC and reduces the noise that could be potentially introduced by sampling from unverified sources. I collect a dataset of activist campaigns from *Activist Insight*, which extracts data from SEC.gov, and take disclosed investments in U.S. companies from 2010 – 2019. Since the share price of small-sized companies tend to fluctuate significantly with idiosyncratic events that are not captured by the control samples, including the nano-cap and micro-cap companies will reduce the credibility of the result. Therefore, the sample excludes the nano-cap and micro-cap companies with a market capitalization of less than $200 million as of their corresponding 13D filings' date.

The sample size is further reduced by filtering the activist type. *Activist Insight* classifies activist hedge funds into five different categories based on their focus types: 1) primary focus funds which dedicate most (or all) of its assets to activist positions; 2) partial focus funds which often employ activist tactics yet also uses other investment strategies; 3) occasional focus funds which adopt an activist stance on an infrequent basis; 4) engagement focus funds which are typically large institutions and individuals that rally for change to promote good corporate governance; and 5)

concerned shareholders who collectively attempt to enforce change, typically in a "one-off" situation. Because this research is interested in examining the activist hedge funds with dedicated resource to conduct pre-investment due diligence and post-investment monitoring, I only include campaigns launched by primary focus funds and partial focus funds as my data points.

When submitting a 13D filing, activist hedge funds usually announce more than one demands ranging from improving corporate governance to pursuing a merger and acquisition transaction. *Activist Insight* creates separate entries for different demands of a transaction, and the demands are classified into one of the 37 types. Because most, if not all, confrontational activist hedges funds require board seats as a tactic to pressure the board of directors and to better deliver the real operation-related demands, I remove data points where "gain board representation" or "change board composition" is specified as the activist's demand. Since there are usually multiple demands for hedge fund investors demanding board representation, the campaigns are still represented in the overall dataset with their operation-related demands. Table 1A in Appendix summarizes the remaining 35 demand types and their corresponding demand code from 1 – 4 for later use. The control group I use is the target company's industry-composite portfolio of publicly traded companies according to its corresponding Fama-French 48 industry code.

After choosing the universe of activist target companies, I collect their financial ratios at firm level provided by Institutional Brokers Estimate System (IBES) through Wharton Research Data Services (WRDS). The ratios are retrieved monthly by querying the companies' most recent quarterly (10-Q) or annual (10-K) reports, and therefore the ratios are updated every quarter. The

merged dataframe with my companies of interest, their corresponding Fama-French 48 industry code, and their relevant financial ratios is subsequently joined with a dataframe with financial ratios at industry level on industry code. Finally, I get a table of activist campaigns with information on their activist investors, the target companies' financial ratios, and the control group's financial ratios on the same dates.

Experimental Design

The choice in experimental design to compare the operational performances of active and passive investment targets is similar to the approach found in (Clifford 2008). However, the research design of comparing performances of different demand types and tracing back to the hedge funds is largely unique to the literature. Prior literatures have reached contradictory conclusions on activist hedge funds' influences on the target companies' operational performances, and the difference can be attributed to multiple factors including different control groups used, different time horizon of sample selection, and different target companies identified. As a niche strategy in the alternative investing world, shareholder activism has very few data points compared to the traditional long/short equity investing. Therefore, this research anticipates to analyze broader trends and to base my result interpretations on both statistical outputs and empirical evidence from prior literature and case studies.

The research uses archival data to investigate if activist hedge funds add value to the target companies as measured by operating and leverage ratios including return on assets (ROA), debt over earnings before interests, taxes, depreciation, and amortization (EBITDA), and operating margin after depreciation (OPMAD). Specifically, I intend to explore if the stated demand types in 13D filings are correlated with the changes in target companies' operating and leverage ratios. I define the 13D filing date, as reported on *Activist Insight* as demand date, as "day 0." I set the event window to begin on day -30 to best capture a target company's performance before activist hedge fund's engagement. Since public companies are requested to publish their earnings on a quarterly basis, a 30-days window reasonably captures the companies' financial profile before activists' involvement. I extend the event window to day +365 to give it enough time for the activist

hedge fund to engage with the board of directors, implement intended changes, and observe results, either successful or unsuccessful, reflected in the company's financial report. I set the window to one year (or four quarters) after the initial demand date for multiple reasons: 1) to account for seasonality of businesses, 2) to avoid an overly long event window that may allow more unmeasured confounding variables to complicate the result interpretation, and 3) to account for the fact that operational changes are not reflected immediately in the financial statements. There are certain caveats associated with the event window decision, and I will analyze them further in the discussion section. Paired sample t-test is used to assess the statistical significance of the differences between the test group and the control group.

Results

While previous literature on shareholder activism has found statistical evidence on abnormal market returns around the filing of a block acquisition by the activist hedge funds, scholars have reached contrasting conclusions on improvements in operating performance. April, Klein, and Zur (2009) find no evidence that activist targets become more profitable as measured by multiple operating metrics, and that there can be deterioration in performance relative to that of the control group in the year after 13D filings. However, Clifford (2008) concludes the opposite, finding 4.30% of excess mean ROA improvement and 1.56% of excess median ROA improvement.

Table 3 reports that activist targets tend to experience a mild increase in operating performance in the 1-year period following the 13D filing. Across the four demand types, activist campaigns with a focus on cost cutting or asset sale (type 4) report more consistent and statistically significant

improvement as measured by return on assets (ROA), return on common equity (ROCE), and gross profit margin (GPM). I examine ROA, research & development expenses / Sale (RD_Sale), and debt / earnings before interests, taxes, depreciation and amortization (Debt / EBITDA) in further details.

a. ROA

As pointed out by Bethel et al, firms targeted by activist investors tend to experience larger asset divestitures without significant impacts on their operating cash flows. This results in an improvement in asset utilization efficiency, which translates directly into an increase in ROA. The results from this research sample are largely consistent with the conclusions of Bethel et al, and I find that the activist hedge funds whose demands focus on cost-cutting or asset divestiture (group four) observe a significant increase in their portfolio companies' ROA more frequently. A more striking ROA improvement is present among target companies in group one, whose activist investors advocate for changes in corporate governance. However, upon closely examining the transactions belong to this group, I find it difficult to attribute the increase in operational improvement to activism because the requests are usually accompanied by other non-governance related demands. A review of the data points categorized as governance-related demands shows that activist hedge funds tend to use the demands as a tactic to win a channel of communication with the board of directors, and it is relatively uncommon for the activists to achieve their stated governance-related demands such as "replacing management" or "amending bylaw."

The result also implies that target companies that are demanded to reorganize balance sheet (group two) and focus on growth strategies (group three) experience a milder improvement in ROA compared to the ones demanded to pursue strategies focusing on cost cutting or asset sale (group four). The finding is in line with our hypothesis, and it justifies the better excess market returns of activist-targeted companies. As pointed out by Karpoff (2001) and Clifford (2008), activist investors tend to target poorly performing firms. The results offer indirect evidence that activist hedge funds are better at capturing the opportunities to operationally restructure underperforming areas of business than to pursue growth or financial engineering initiatives.

b. R&D / Sale

Bushee (1998) finds generally that a large proportion of ownership by institutions that have high portfolio turnover significantly increases the probability that managers reduce R&D to reverse an earnings decline. Specifically, he believes that management is incentivized to cut R&D expenditures to meet quarterly earnings expectations. I find just the opposite for group one, two and four. In particular, I conclude that companies demanded to cut cost and pursue asset divestiture (group four) experience an expansion in R&D / Sale of 0.25x relative to the control group.

While companies targeted by activist hedge funds are under the spotlight and have more media coverage, it is shown that the management are not cutting discretionary R&D expenditures as a percentage of sale, and this is especially true for the cost-cutting focused (group four) target companies. Combined with our findings on ROA, the result suggests that the group four companies are able to reallocate their capital to R&D investments without a decline in capital efficiency.

c. Debt / EBITDA

The result shows that companies demanded to focus on cost cutting or asset divestiture experience an insignificant decrease in leverage. However, a significant increase in leverage utilization is observed among companies demanded to reorganize their balance sheet, which indicates that the type two activist hedge funds are successful at achieving their stated target. The type two hedge funds take, on average, 3.48x more turns in leverage compared to before activists' investment.

Discussion

While the results confirm my hypothesis that target companies demanded to cut cost or pursue asset divestures by activist hedge funds tend to experience the largest improvement in value creation measured by ROA, I also acknowledge some caveats to the research design and the derived conclusions.

First, the control group selection can have an impact on the result. As confirmed by April et al. (2009) and Clifford's (2008) competing statements on the influence of activist hedge funds, the distinction between activist and passive hedge funds as well as the selection of comparable companies as the control group can potentially reverse the conclusion. There are multiple unobserved confounding variables that influence operating performance and return on invested capital in addition to activists' engagement with a portfolio company, and the fact that return on invested capital is volatile makes it more difficult to make reasonable derivations. If I can collect

more data of activist campaigns across a larger time span, I expect to improve the confidence level of the analysis.

Furthermore, it takes time for activist hedge funds to achieve their desired goals and the changes may require a longer period to get reflected on the companies' financial statements. For example, the impact of growth initiatives will be compounded further into the future, and my choice of a one-year period as my event window captures only a partial effect of activist investors. However, the decision is a tradeoff for fewer confounding variables that could be inexplainable if a longer event window is applied.

Lastly, my segmentation of activist campaigns and hedge funds is a categorization contingent on the hedge funds' self-reported demands. While I believe this is the most reasonable basis for grouping, it is questionable to what extent I can rely on the demands proposed in 13D filings. In many cases, board of directors and managers of the targeted companies communicate with the hedge fund investors in private to exchange opinions. Although documents on the conversations can provide better insights on the real and complete demands put forward by activist hedge funds, it is impossible to access those without companies' voluntary disclosure.

Conclusion

The motivation for this research is to uncover a deeper understanding of the different types of common demands by activist hedge funds, and the impacts of their actions on the change in

operating performances of the target companies. Upon examining 1238 activist campaigns from 2008 – 2020, I find that activist hedge funds that focus on cost-cutting and asset divestiture initiatives (group four) observe greatest improvements in their portfolio companies' operating performances.

In particular, the group four companies are able to improve their profitability without cutting discretionary investments in research and developments. In addition, I do not find statistically significant decline in leverage utilization due to asset divestiture. This is consistent with my hypothesis that companies invested by activist hedge funds tend to have excess improvements in operating performances, and the hedge funds that focus on cost cutting and asset divestiture tend to have greatest positive impacts on their target companies.

Appendix

Table 1A – Demand Type and The Corresponding Category Number

Demand Type	Category
Adopt Majority Vote Standard	1
Amend Bylaw	1
Board Independence	1
Business Focus	1
Business Restructuring	1
Lack of/Inaccurate Information From Company	1
Redemption/Amendment of Poison Pill	1
REIT / MLP Conversion	1
Removal of CEO or Other Board Member	1
Remuneration	1
Replace Management	1
Separate Chairman & CEO	1
Terminate Investment Advisory Agreement	1
Use Universal Ballot	1
Dividends	2
Equity Issuance	2
Excess Cash	2
Oppose Equity Issuance	2
Push For/Oppose Merging of Shares	2
Recapitalization	2
Restructure Debt	2
Return Cash to Shareholders	2
Share Repurchase	2
Under Leverage	2
Oppose Sale of Company	3
Focus on Growth Strategies	3
Push For Acquisition of Third Party	3
Closure of Business Unit	4
General Cost Cutting	4
Operational Efficiency	4
Oppose Acquisition of Third Party	4
Push for Company Division	4
Push for Sale of Company	4
Sell/Retain Assets	4
Spin-Off/Sale of Business Division	4

Table 1B – Category Number and The Corresponding Demand Category

Change corporate governance	1
Reorganize balance sheet	2
Implement growth strategy	3
Cost cutting / asset sale	4

Table 2A – Summary Campaign Characteristics (Number of Campaigns by Demand Year)

Demand Year	# of Campaigns
2010	24
2011	36
2012	89
2013	154
2014	156
2015	188
2016	124
2017	144
2018	137
2019	185

Table 2B – Summary Campaign Characteristics (Hedge Funds by Year Founded)

Year Activist Founded	# of Hedge Funds
1934	17
1954	2
1971	3
1975	15
1976	34
1977	89
1978	1
1982	2
1983	4
1986	4
1987	48
1988	24
1990	1
1991	38
1992	10
1993	11
1994	11
1995	32
1996	26
1997	61
1998	10
1999	3
2000	56
2001	46
2002	11
2003	59
2004	24
2005	77
2006	13
2007	23
2008	15
2009	63
2010	78
2011	125
2012	71
2013	85
2014	9
2015	9
2016	8
2017	16
2018	4

Table 2C – Summary Campaign Characteristics (Top 15 Hedge Funds by Number of Campaigns)

Activist Hedge Fund	# of Campaigns
Starboard Value	89
Elliott Management	89
Engine Capital LP	54
Carl Icahn	48
JANA Partners	46
Barington Capital Group	44
Marcato Capital Management	38
Clinton Group	36
GAMCO Investors	34
Trian Fund Management	28
Sandell Asset Management	28
Macellum Advisors	25
Ancora Advisors LLC	22
Legion Partners Asset Management	21
Third Point Partners	20
Krupa Global Investments (formerly Arca Capital)	20

Table 3 – Model Output Summary

		Demand 1		Demand 2		Demand 3		Demand 4	
		Mean	sd	Mean	sd	Mean	sd	Mean	sd
ROA	roa_diff_activist	37.0%	3.91	(1.2%)	1.44	17.1%	0.88	8.9%	3.14
	roa_diff_control	(32.5%)	2.96	(17.7%)	1.35	(0.8%)	0.65	(16.7%)	1.18
	roa.activist - roa.control	69.5%		16.5%		17.9%		25.6%	
	N		414		234		48		538
	p-value	0.003		0.228		0.254		0.079	
ROCE	roce_diff_activist	(13.2%)	2.38	(28.0%)	1.75	(19.4%)	0.59	(41.2%)	6.61
	roce_diff_control	(55.9%)	8.9	(226.0%)	17.2	(176.0%)	9.56	(159.0%)	13.9
	roce.activist - roce.control	42.7%		198.0%		156.6%		117.8%	
	N		414		234		48		538
	p-value	0.347		0.082		0.259		0.079	
OPMAD	opmad_diff_activist	(17.5%)	2.27	(10.5%)	4.23	(22.6%)	0.65	(35.5%)	6.67
	opmad_diff_control	(64.4%)	89.60	NaN	NaN	(291.0%)	13.50	NaN	NaN
	opmad.activist - opmad.control	46.9%		NaN		268.4%		NaN	
	N		414		234		48		538
	p-value	0.917		NaN		0.183		NaN	
GPM	gpm_diff_activist	(11.2%)	1.61	(18.7%)	1.36	(4.2%)	0.29	(17.2%)	1.54
	gpm_diff_control	(58.1%)	14.20	(50.5%)	5.34	(5.3%)	0.37	(65.1%)	9.40
	gpm.activist - gpm.control	46.9%		31.8%		1.1%		47.9%	
	N		414		234		48		538
	p-value	0.503		0.378		0.877		0.246	
RD_Sale	rd_sale_diff_activist	(0.04)	0.59	0.00	0.02	0.03	0.22	0.00	0.02
	rd_sale_diff_control	(1.08)	18.90	(0.12)	1.78	0.37	7.62	(0.25)	4.23
	rd_sale.activist - rd_sale.control	1.04		0.12		(0.33)		0.25	
	N		414		234		48		538
	p-value	0.251		0.290		0.757		0.178	
Debt_Ebitda	debt_ebitda_diff_activist	0.75	6.94	3.25	14.90	1.58	5.05	0.54	8.01
	debt_ebitda_diff_control	(0.37)	11.80	(0.23)	11.20	0.15	6.52	0.66	11.60
	debt_ebitda.activist - debt_ebitda.control	1.11		3.48		1.43		(0.12)	
	N		414		234		48		538
	p-value	0.093		0.005		0.287		0.849	

References

Bradley, Michael, Alon Brav, Itay Goldstein, and Wei Jiang. “Activist Arbitrage: A Study of Open-Ending Attempts of Closed-End Funds.” *Journal of Financial Economics* 95, no. 1 (2010): 1–19. https://doi.org/10.1016/j.jfineco.2009.01.005.

Brav, Alon, Wei Jiang, and Hyunseob Kim. “Hedge Fund Activism: A Review .” *Foundations and Trends in Finance* 4, no. 3 (2010): 185–246.

Bushee, Brian J. “The Influence of Institutional Investors on Myopic R&D Investment Behavior.” *The Accounting Review* 3, no. 3 (July 1998): 305–33.

Clifford, Christopher P. “ Value Creation or Destruction? Hedge Funds as Shareholder Activists .” *Journal of Corporate Finance* 14 (2008): 323–36.

Dechow, Patricia M., and Richard G. Sloan. “Executive Incentives and the Horizon Problem – An Empirical Investigation .” *Journal of Accounting and Economics* 14 (1991): 51–89.

Gantchev, Nickolay. “The Costs of Shareholder Activism: Evidence from A Sequential Decision Model.” *Journal of Financial Economics* 107 (September 27, 2012): 610–31.

Gompers, Paul, Joy Ishii, and Andrew Metrick. “Corporate Governance and Equity Prices,” 2001. https://doi.org/10.3386/w8449.

Kaiser, Kevin, and David S. Young. “The Hazards of Growth.” *Journal of Applied Corporate Finance* 27, no. 3 (2015): 34–48.

Klein, April, and Emanuel Zur. “Entrepreneurial Shareholder Activism - Hedge Funds and Other Private Investors.” *The Journal of Finance* 64, no. 1 (February 2009).

Jensen, Michael C. “Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers.” *Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers* 76, no. 2 (May 1986): 323–29.

Mietzner, Mark, and Denis Schweizer. “Hedge Funds versus Private Equity Funds as Shareholder Activists in Germany – Differences in Value Creation.” *Journal of Economics and Finance* 38 (2014): 181–208.

Schor, Michael, and Robin Marc Greenwood. “Investor Activism and Takeovers.” *SSRN Electronic Journal*, 2007. https://doi.org/10.2139/ssrn.1003792.

Starks, Laura T., and Stuart L. Gillan. “The Evolution of Shareholder Activism in the United States.” Essay. In *U.S. Corporate Governance*, 202–40. New York, NY: Columbia University Press, 2009.