Activist paper preliminary output

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Data and summary statistics

Form 13F

I obtain information about funds positions from 13F data. Form 13F is filed annually by institutional investment managers with assets under management exceeding \$100mn. This form requires disclosure the managers' financial positions along with corresponding trade dates. Up to this date, I scraped the 13F data for 2014-2015 from the SEC EDGAR website. This was a preferable option for this time period because starting 2014 the funds are required to file form 13F as an XML table. This allowed me to perfectly identify the unique identificators (CIK codes) of the funds.

Unfortunately, the funds had substantial discretion in filing the 13F forms prior to 2014, so obtaining consistent data no longer seems possible. This leaves me a second-best option of downloading the 13F forms from Thompson Reuters and Factset. The significant disadvantage of this data is that it only contains fund names, not the CIK codes. Thus, processing this dataset is going to require using approximate matching algorithms.

Form 13D

Form 13D needs to be filed when an investor accumulates 5% stake in the company and has intentions of changing the ways the company operates. [1] If there were any letters to management/shareholders, those need to be attached to the form 13D. The investors also may choose to elaborate their intentions regarding the company.

Activists campaigns

I am using SharkWatch database to obtain information about activist campaigns. This database is available to me through Factset. SharkWatch database contains information on activists' campaigns that reached a certain form of documentation (such as threatening proxy fights, publicly disclosed letter/presentation to management, letter to shareholders, proxy fight or hostile offer). Specifically, SharkWatch lists activists which participated in the campaign, the means that both activists and company took to win the campaign, and briefly (in 2-3 sentences) describes the outcome of the campaign.

SharkWatch lists all activists involved in a certain campaign in one database cell and does not contain any commonly used identifiers of activists funds. Therefore I manually separated the funds listed in a cell. Once the funds are separated, I use the 13F database to match the funds' name to its CIK code. For those funds which were not matched via exact match, I use an approximate match algorithms with Levenshtein distance metrics.

There are XXXX activists that are still not matched after the exact and approximate matches. Most of them (XXX percent) are the names of individuals. For example, sometimes the SharkWatch uses the name of the person who signed 13D to form the activist variable. In some cases the campaign is run not by the individual, but by the fund that employs this individual. Those cases need to be manually analyzed and matched. I consider those cases as the toughest ones to match and left those until later.

Campaign outcome variable

In this paper I am interested in learning how the composition of investors influences the campaign outcome. I use several variables to determine the outcome of the campaign.

I obtain the first outcome variable that I use following [**?**] and [**?**]. In particular, I classify campaign as successful when the main investment objective is achieved over the course of the campaign. To do this, I first identify the publicly disclosed objectives of the activists by reading the form 13D, letter to shareholders or letter to the board/management. Then read

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[1] Passive investors are filing form 13G

through the all company press releases and media announcements over the course of the campaign and search for any mentions that the objectives were achieved.

Up until now, I have classified only the year of 2015 (around 500 campaigns) using the method described above. Because this way of collecting data is time consuming, I asked the authors of [**?**] and [**?**] to share the data with me. I have preliminary agreement with Nickolay Gantchev that he will share the classified data spanning 2000-2007, but I haven't received anything yet.

I use the outcome of the directors election as my second outcome variable. This variable is only going to be available when activists aim at board representation. I created a indicator variable which is equal to 1 when the activist group is able to place at least 1 nominee on the board. The second possible outcome variable is the percentage of the activist nominees that were elected to the company board. Unfortunately, I cannot use the latter variable in my regressions now, because the information on the board seats sought is very sparse. (I only have 21 observations of this variable now).

The final set of outcome variables is operational variables. In particular, I use the sales growth and operational profitability growth over the span of the campaign. I define operational profitability as in [**?**] (Operating Profitability = Revenue - Cost of goods sold - Reported sales, general, and administrative expenses).

Control variables

I am using COMPUSTAT to obtain control variables.

Final dataset

After cleaning and merging campaign data with 13F data and COMPUSTAT, I am left with 104 observations over 2015. I run my analysis on this small subsample.

Summary Statistics

Table 1: **Summary of events by hedge fund stated goals - the whole 2015.** The sample consists of 467 activist campaigns in 2015, of which 352 contain demands.

Activist' Objective	Num. of events	% of Sample	% of Success
General undervaluation/maximize shareholder value	115	24.6%	NA
Excess cash, under-leverage, dividends/repurchases	28	6%	71.4%
Equity issuance, restructure debt, recapitalization	16	3.43%	50%
Operational efficiency	24	5.14%	45.8%
Lack of focus, business restructuring and spinning off	9	1.93%	66.7%
M&A: as target (against the deal/for better terms)	19	4.07%	31.6%
M&A: as acquirer (against the deal/for better terms)	4	0.857%	100%
Pursue growth strategies	8	1.71%	50%
Sell company or main assets to a third party	37	7.92%	56.8%
Take control/buyout company and/or take it private	32	6.85%	40.6%
Rescind takeover defenses	15	3.21%	53.3%
Oust CEO, chairman	11	2.36%	63.6%
Board independence and fair representation	178	38.1%	64.6%
More information disclosure/potential fraud	25	5.35%	12%
Excess executive compensation/pay for performance	25	5.35%	40%
Institute enviromental protection policy	14	3%	0%
Public Short Position/Bear Raid	2	0.428%	0%
Sum of categories not falling into general undervaluation	352	75.4%	57.7%

Table 2: **Summary of events by hedge fund stated goals - the merged subsample of 2015.** The sample consists of 104 activist campaigns in 2015, of which 104 contain demands. The campaigns that fall into general undervaluation category are not considered here.

Activist' Objective	Num. of events	% of Sample	% of Success
General undervaluation/maximize shareholder value	0	0%	NA
Excess cash, under-leverage, dividends/repurchases	12	11.5%	75%
Equity issuance, restructure debt, recapitalization	10	9.62%	80%
Operational efficiency	12	11.5%	41.7%
Lack of focus, business restructuring and spinning off	5	4.81%	60%
M&A: as target (against the deal/for better terms)	4	3.85%	25%
M&A: as acquirer (against the deal/for better terms)	2	1.92%	100%
Pursue growth strategies	5	4.81%	40%
Sell company or main assets to a third party	19	18.3%	57.9%
Take control/buyout company and/or take it private	3	2.88%	0%
Rescind takeover defenses	2	1.92%	50%
Oust CEO, chairman	6	5.77%	83.3%
Board independence and fair representation	48	46.2%	66.7%
More information disclosure/potential fraud	9	8.65%	11.1%
Excess executive compensation/pay for performance	11	10.6%	27.3%
Institute enviromental protection policy	4	3.85%	0%
Public Short Position/Bear Raid	1	0.962%	0%
Sum of categories not falling into general undervaluation	104	100%	0%

Table 3: **Sussess rate by stage - the whole 2015.** This table provides the breakdown of stages at which the campaign is terminated. The table is based on the sample of all campaigns that took place in 2015. The data on campaign avalability comes from SharkWatch database. Campaigns were manually classified.

Exit after	Num. of campaigns	% of Sample	Number of Successes	% of Successes
Demand negotiations	112	23.8%	73	65.2%
Board representation	214	45.4%	111	51.9%
Threaten proxy fight	0	0%	0	NaN%
Proxy fight	144	30.6%	97	67.4%
Buy company	1	0.212%	1	100%

Table 4: **Sussess rate by stage - the merged subsample.** This table provides the breakdown of stages at which the campaign is terminated. The table is based on the observations that are left after the campaigns data is merged with 13F data. The data on campaign avalability comes from SharkWatch database. Campaigns were manually classified.

Exit after	Num. of campaigns	% of Sample	Number of Successes	% of Successes
Demand negotiations	23	22.1%	17	73.9%
Board representation	30	28.8%	13	43.3%
Threaten proxy fight	0	0%	0	NaN%
Proxy fight	51	49%	39	76.5%
Buy company	0	0%	0	NaN%

Table 5: **Descriptive statistics.** This table provides summary statistics on the variables used in preliminary analysis. The variables are grouped by type. *won_brep_percent* is the percentage of board seats won out of the number of activists' nominees. *won_brep_dummy* is an indicator variable equal to 1 when at least 1 activist nominee was elected to the board. *success_of_stated_obj* is an indicator of fulfillment of activists' demands. *sales_growth* is the growth of sales over the span of the campaign. *oper_profit_growth* is an operational profitability growth over the span of the campaign. Operational profitability is defined as in [**?**]. *active.activist.size* correponds to the total assets of an activist group, computed from 13F filings. *investor.number* is a total number of institutional investors that hold shares of a company. *total.activist.number* is the number of activist investors that hold shares of the company. Activist investor is defined as any investor that appeared in SharkWatch database at least once. *activist.size.vweghted* is the sum of all the company's activists' assets weighted by the share of investments in the company. *activist.size.average* is an average of total assets of company's activists. *spring measure* corresponds to the edges of Spring Network, which is described above. *number of connections* corresponds to Number of Connections Network, where the weight of the edge is number of connections between two activists. *size* is the market value of the company. *age* is the age of the company. *leverage* is the leverage of the company. *mtb* is the market-to-book ratio of the company. *oper_profit* is an operating profitability of the company. *roa* is return on company's assets. *tobins_q* is the company's Tobin's Q. *asset_turnover* is the company's asste turnover. *rd_to_assets* is a share of R&D expenditures to the company's assets. *revtq* is the quarterly revenue, and *saleq* are the company's sales.

Variable type	Variable	min	p25	p50	median	p75	max	sd
campaign outcome	won_brep_percent	0	0	0.41	0.33	0.67	1	0.36
campaign outcome	won_brep_dummy	0	1	0.93	1	1	1	0.25
campaign outcome	success_of_stated_obj	0	0	0.56	1	1	1	0.5
campaign outcome	sales_growth	-0.96	0	0.36	0	0	25.38	3.11
campaign outcome	oper_profit_growth	-0.94	0	0.16	0	0	9.65	1.32
activists' persuasiveness	log(active.activist.size)	3.99	5.9	7.2	6.92	8.65	10.63	1.69
network variable	investor.number	14	122.25	507.93	232	668.25	2017	580.55
network variable	total.activist.number	1	12.75	27.37	20.5	40	72	19.58
network variable	log(activist.size.vweighted)	7.39	10.26	10.92	10.95	11.53	16.21	1.63
network variable	log(activist.size.average)	7.08	10.34	10.67	10.7	11.01	12.91	0.73
network variable	spring measure	0	0	0.01	0	0.01	0.97	0.04
network variable	number of connections	1	1	22.73	3	11	3369	113.7
control variable	log(size)	3.56	5.96	8.03	7.48	10.09	12.76	2.54
control variable	age	3	12	27.55	24	46	53	16.56
control variable	leverage	-1.74	0.21	1.16	0.65	1.25	9.96	1.87
control variable	mtb	-0.18	1.21	3.32	1.94	3.34	40.78	5.19
control variable	oper_profit	-61.91	20.11	1231.78	74.05	782.75	11801	2431.29
control variable	roa	-727.54	-39.02	84.26	40.07	188.5	854.49	290.71
control variable	tobins_q	0.21	0.88	1.34	1.18	1.45	3.66	0.72
control variable	asset_turnover	0.01	0.05	0.19	0.13	0.23	0.94	0.18
control variable	rd_to_assets	0	0	36.88	0	0.87	1444	201.06
control variable	revtq	5.54	95.54	6326.45	340.81	2577.5	65395	14456.9
control variable	saleq	5.54	78.09	6178.69	311.34	2518	65395	14178.75

Preliminary results

Table 6: **Correlation table.** *won_brep_percent* is the percentage of board seats won out of the number of activists' nominees. *won_brep_dummy* is an indicator variable equal to 1 when at least 1 activist nominee was elected to the board. *success_of_stated_obj* is an indicator of fulfillment of activists' demands. *sales_growth* is the growth of sales over the span of the campaign. *oper_profit_growth* is an operational profitability growth over the span of the campaign. Operational profitability is defined as in [**?**]. *active.activist.size* correponds to the total assets of an activist group, computed from 13F filings. *investor.number* is a total number of institutional investors that hold shares of a company. *total.activist.number* is the number of activist investors that hold shares of the company. Activist investor is defined as any investor that appeared in SharkWatch database at least once. *activist.size.vweighted* is the sum of all the company's activists' assets weighted by the share of investments in the company. *activist.size.average* is an average of total assets of company's activists. *spring measure* corresponds to the edges of Spring Network, which is described above. *number of connections* corresponds to Number of Connections Network, where the weight of the edge is number of connections between two activists. *size* is the market value of the company. *age* is the age of the company. *leverage* is the leverage of the company. *mtb* is the market-to-book ratio of the company. *oper_profit* is an operating profitability of the company. *roa* is return on company's assets. *tobins_q* is the company's Tobin's Q. *asset_turnover* is the company's asste turnover. *rd_to_assets* is a share of R&D expenditures to the company's assets. *revtq* is the quarterly revenue, and *saleq* are the company's sales

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1 won_brep_percent	1																				
2 won_brep_dummy	0.82	1																			
3 success_of_stated_obj	0.06	0.15	1																		
4 sales_growth	-0.38	0.02	0.1	1																	
5 oper_profit_growth	-0.69	-0.01	0.12	-0.02	1																
6 log(active.activist.size)	-0.2	0.13	0.23	0.11	0.32	1															
7 investor.number	-0.1	0.18	-0.25	-0.05	-0.04	0.4	1														
8 total.activist.number	0.01	0.21	-0.17	-0.03	-0.02	0.43	0.93	1													
9 log(activist.size.vweighted)	-0.37	0.02	0.06	0.03	-0.01	0.07	0.33	0.44	1												
10 log(activist.size.average)	-0.35	-0.11	0.1	-0.06	-0.01	-0.22	-0.3	-0.23	0.5	1											
11 age	0.32	0.21	-0.1	0.16	0.16	0.28	0.65	0.59	0.21	-0.3	1										
12 leverage	-0.11	0.1	0.13	0.15	0.01	0.11	0	0.03	0.2	0.13	-0.12	1									
13 log(size)	0.15	0.24	-0.11	-0.11	0.02	0.47	0.89	0.93	0.48	-0.28	0.68	0.05	1								
14 mtb	-0.06	0.09	0.15	0.3	0	0.07	0.07	0.11	0.23	0.15	-0.05	0.67	0.13	1							
15 oper_profit	0.18	0.13	-0.32	-0.02	-0.07	0.14	0.87	0.76	0.21	-0.45	0.57	0.22	0.74	0.12	1						
16 roa	-0.19	0.01	0.01	0.09	0.24	0.05	0.22	0.24	0.17	-0.21	0.17	-0.01	0.24	-0.07	0.25	1					
17 tobins_q	-0.13	0.14	0.25	0.12	-0.07	0.01	0.22	0.04	0.37	0.19	0	0.23	0.12	0.57	-0.08	-0.07	1				
18 asset_turnover	-0.15	-0.11	0.15	-0.12	-0.04	-0.14	-0.13	-0.19	-0.09	0.13	-0.08	-0.17	-0.16	0.09	-0.18	-0.17	0.23	1			
19 rd_to_assets	-0.01	0.05	-0.01	-0.03	-0.03	0.14	0.25	0.26	0.27	0.13	-0.01	-0.04	0.23	0.02	0.17	-0.02	0.42	-0.09	1		
20 revtq	0.07	0.11	-0.23	-0.06	-0.05	0.25	0.76	0.64	0.17	-0.45	0.56	-0.02	0.66	-0.04	0.9	0.24	-0.1	-0.04	-0.01	1	
21 saleq	0.1	0.12	-0.21	-0.06	-0.05	0.3	0.77	0.65	0.16	-0.36	0.57	-0.02	0.67	-0.03	0.9	0.18	-0.1	-0.03	0	1	1

Table 7: Logit regressions with robust standard errors

	Dependent variable:									
	won_brep_dummy						success_of_stated_obj			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
total.activist.number	0.088***		0.076***			−0.018*		−0.027*		
	(0.026)		(0.029)			(0.011)		(0.015)		
log(active.activist.size)		0.312**	0.146		0.112		0.293**	0.424***		0.474***
		(0.134)	(0.154)		(0.143)		(0.140)	(0.161)		(0.162)
investor.number				0.006***	0.006**				−0.001**	−0.002***
				(0.002)	(0.002)				(0.0004)	(0.001)
Constant	1.047*	0.311	0.199	1.313**	0.653	0.727**	−1.721*	−2.021*	0.683**	−2.437**
	(0.579)	(1.015)	(1.179)	(0.547)	(1.126)	(0.369)	(1.032)	(1.069)	(0.280)	(1.120)
Observations	104	88	88	104	88	104	88	88	104	88
Log Likelihood	−22.209	−23.655	−21.911	−22.132	−22.023	−69.851	−57.161	−55.521	−68.207	−53.891
Akaike Inf. Crit.	48.418	51.311	49.823	48.263	50.046	143.702	118.322	117.042	140.414	113.781

Notes: Logistic regression of the equation $Y = n$

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Table 8: OLS regressions with robust se

	Dependent variable:									
	won_brep_dummy						success_of_stated_obj			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
total.activist.number	0.003*** (0.001)		0.003** (0.001)		0.001 (0.003)	−0.004* (0.003)		−0.006* (0.003)		−0.016** (0.007)
age					0.002 (0.002)					−0.002 (0.005)
log(size)					0.010 (0.030)					0.078 (0.064)
leverage					0.015 (0.014)					−0.003 (0.037)
mtb					0.00002 (0.003)					0.012 (0.009)
log(active.activist.size)		0.021* (0.011)	0.010 (0.010)	0.013 (0.010)	−0.001 (0.012)		0.067** (0.029)	0.093*** (0.030)	0.100*** (0.029)	0.098*** (0.035)
investor.number				0.0001** (0.00003)					−0.0003*** (0.0001)	
Constant	0.858*** (0.052)	0.770*** (0.102)	0.791*** (0.097)	0.799*** (0.095)	0.739*** (0.175)	0.678*** (0.086)	0.107 (0.228)	0.059 (0.227)	−0.012 (0.227)	−0.298 (0.333)
Observations	104	88	88	88	77	104	88	88	88	77
R²	0.045	0.017	0.039	0.030	0.070	0.030	0.052	0.087	0.120	0.141
Adjusted R²	0.036	0.005	0.017	0.007	−0.010	0.020	0.041	0.065	0.100	0.067

Note: *p<0.1; **p<0.05; ***p<0.01

Table 9: OLS regressions with robust se, operational outcome variables

	Dependent variable:			
	sales_growth		oper_profit_growth	
	(1)	(2)	(3)	(4)
log(active.activist.size)	0.251	0.004	0.299	0.381
	(0.269)	(0.010)	(0.292)	(0.395)
total.activist.number	−0.009	0.008	−0.008	0.001
	(0.012)	(0.009)	(0.010)	(0.035)
age		0.001		0.038
		(0.001)		(0.041)
log(size)		−0.068		−0.200
		(0.075)		(0.379)
leverage		−0.009		0.105
		(0.008)		(0.130)
mtb		0.011***		−0.045
		(0.003)		(0.064)
Constant	−1.148	0.233	−1.727	−1.779
	(1.213)	(0.370)	(1.622)	(2.057)
Observations	52	48	40	38
R^2	0.013	0.227	0.112	0.222
Adjusted R^2	−0.027	0.114	0.064	0.072

Note: *p<0.1; **p<0.05; ***p<0.01

Table 10: Basic spillover OLS regressions with robust se

	Dependent variable:											
	won_brep_dummy								success_of_stated_obj			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
log(active.activist.size)	−0.037* (0.021)	0.020* (0.011)	−0.002 (0.014)		0.022* (0.011)	−0.004 (0.015)	0.067** (0.029)	0.078** (0.031)	0.101** (0.039)		0.067** (0.031)	0.105*** (0.038)
log(activist.size.average)		−0.021 (0.018)	−0.022 (0.035)					0.086 (0.101)	0.042 (0.119)			
age			0.002 (0.002)			0.001 (0.002)			−0.001 (0.006)			−0.0005 (0.006)
log(size)			0.022* (0.013)			0.032* (0.018)			−0.040 (0.038)			−0.061 (0.044)
leverage			0.014 (0.017)			0.014 (0.019)			−0.009 (0.044)			−0.010 (0.042)
mtb			0.0003 (0.005)			0.001 (0.006)			0.015 (0.013)			0.014 (0.013)
log(activist.size.vweighted)				0.004 (0.008)	−0.0004 (0.009)	−0.020 (0.017)				0.018 (0.033)	0.026 (0.033)	0.044 (0.043)
Constant	1.321*** (0.206)	1.004*** (0.215)	0.937** (0.410)	0.891*** (0.094)	0.766*** (0.150)	0.864*** (0.177)	0.107 (0.228)	−0.904 (1.161)	−0.326 (1.394)	0.352 (0.359)	−0.182 (0.397)	−0.232 (0.454)
Observations	102	86	75	102	86	75	88	86	75	102	86	75
R^2	0.011	0.020	0.070	0.001	0.017	0.078	0.052	0.070	0.091	0.003	0.062	0.104
Adjusted R^2	0.001	−0.003	−0.012	−0.009	−0.006	−0.004	0.041	0.047	0.011	−0.006	0.039	0.025
Note:											*p<0.1; **p<0.05; ***p<0.01	

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Table 11: Basic spillower OLS regressions with robust se, operational outcome variables

		Dependent variable:		
	sales_growth		oper_profit_growth	
	(1)	(2)	(3)	(4)
log(active.activist.size)	0.223	0.005	0.295	0.396
	(0.239)	(0.009)	(0.287)	(0.414)
log(activist.size.vweighted)	0.049	0.010	−0.021	0.077
	(0.066)	(0.009)	(0.045)	(0.113)
age		−0.001		0.040
		(0.003)		(0.042)
log(size)		−0.011		−0.233
		(0.009)		(0.266)
leverage		−0.009		0.150
		(0.014)		(0.182)
mtb		0.009*		−0.082
		(0.005)		(0.108)
Constant	−1.713	−0.102	−1.639	−2.457
	(1.762)	(0.120)	(1.540)	(2.490)
Observations	51	47	39	37
R^2	0.013	0.090	0.114	0.230
Adjusted R^2	−0.028	−0.047	0.065	0.075

Note: *p<0.1; **p<0.05; ***p<0.01