Impact of inter-country differences in shareholder rights regimes on formation of hedge fund wolf-packs, campaign outcomes and target shareholder value gains

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Abstract

Using an international sample of 1,719 hedge fund activist involvements since 2000, we examine whether the shareholder rights regimes in the sample countries influence how hedge fund (HF) activists conduct their campaigns against target management, the impact of such regimes on campaign outcome and on the long term shareholder value gains to target shareholders. Our basic proposition is that the effectiveness of HF activism in enhancing shareholders' interests vis-à-vis incumbent managements is diminished by the level of shareholder protection offered by the legal regimes in different countries since it reduces the need for such activism. Shareholder rights regimes also may impact on the ability of HFs to coordinate other shareholders in their campaign e.g. by forming wolf-packs (WPs). We construct a Shareholder Rights Index (SRI) for the 12 countries included in our sample with high scores on the index reflecting high levels of shareholder protection. We find that a high SRI score deters the formation of WPs. We also find that high SRI scores reduce the chances of a HF campaign win, in particular, when such campaigns seek corporate governance changes. Finally, we find that long term buy-and-hold-returns (BHARs) are lower following HF campaigns when SRI scores are higher. These results are consistent with the proposition that the role and effectiveness of HFs as change agents in target firms is reduced where shareholder rights regimes are stronger.

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1. Introduction

Activism by shareholders to assert their rights and force incumbent managements to act in theirs has a long history. Such activism has assumed several forms from raiders, hostile takeover bidders, institutional investor campaigns to enforce corporate governance codes etc. Hedge fund (HF) activists represent the most recent phenomenon of shareholder activism. Their role as an instrument of improved corporate governance resulting in enhanced shareholder value has been studied by a number of scholars. Most extant studies provide evidence of significant shareholder value gains following HF campaigns against their companies (Brav, Jiang and Kim, 2015; Bebchuk, Brav and Jiang, 2015; Becht, Franks, Grant and Wagner, 2015; Hamao, Kutsuna and Matos, 2011; Brav, Jiang, Partnoy, and Thomas, 2008; and Greenwood and Schor, 2009).

Several other studies have examined the campaign strategies and tactics adopted by HFs (Becht, Franks, Grant and Wagner, 2014; Briggs, 2007; Coffee and Palia, 2015 and Wong 2016). One of the tactics is the formation of the so-called wolf-packs (WPs). These are non-HF investors in the target firms whom the HFs coordinate explicitly or these investors follow the lead provided by the HFs and implicitly enlist themselves in the HF campaign. In this paper we investigate the extent to which such coordination is necessary or feasible by the legal and regulatory regime protecting shareholder interests. To this end we propose two agency models of the role of HF activists: the 'outcome' governance model and the 'substitute' governance model. Under the outcome model, the ability of HFs and other investors to form WPs either implicitly or explicitly is facilitated by a strong legal system of shareholder protection. The outcome model predicts a positive association between the level of shareholder protection and the likelihood of WP formation. Under the substitution model, the potential for value generation by actively engaging with firms and the ability to develop campaign tactics that lead to the successful incorporation of

value-generating changes is worth the most in countries with weak legal protection of shareholders. The substitution model posits that in countries where the legal regimes of shareholder protection are weak, investors may resort to activism by either leading the campaign or supporting it by becoming part of WPs.

Countries differ in the legal framework for protecting shareholder interests and the rights they confer on shareholders. Such legal regimes may be complemented or overridden, if so allowed, by corporate charters. Most of the extant studies of the impact of HFs on target performance or of their campaign tactics have been based on US data since US has been the most important market for such activism and the number of HF campaigns in the US are far more than those in other countries.

Nevertheless, we find a small number of studies focusing on international samples of HF activism or on non-US markets (Hamao et al., 2010; Becht et al., 2015 and Bessler et al, 2015). These studies have generally addressed the same issues as their US-based counterparts. However, one of the key issues arising in the context of multinational samples of HF activism, but missed by these international studies, is the relevance and impact of different legal regimes for shareholder/ investor protection in different countries comprising the samples.

Our empirical analysis provides evidence in favour of the substitute governance model of HF activism. Specifically, we find that in countries with strong legal regimes the likelihood of WP formation is lower. We also show that strong shareholder protection reduces the chances of a HF campaign win, in particular, when such campaigns seek corporate governance changes. Finally, we find that long term buy-and-hold-returns (BHARs) are lower following HF campaigns in countries with strong shareholder protection. The results are consistent with the idea that strong shareholder rights regimes make target managements more responsive to shareholder concerns,

and, as a result, these regimes also make HF activism less relevant and effective. The impact of such regimes on the incidence of HF activism, the effectiveness of HF campaigns in changing the target management governance, policies and strategies and in enhancing shareholder value appears to be diminished. Strong shareholder rights regimes also appear to make HF efforts to coordinate other shareholders in their campaign less effective and successful. It is also logical to expect that any shareholder value gains following HF activist campaigns may be less when shareholder rights regimes are stronger.

Our paper contributes to the literature on activism in general and HF activism in particular. We fill the gap in this literature concerning the impact of the shareholder rights regimes in different countries on the ability of HFs to campaign against errant incumbent managements, coordinate other investors, win their campaign, bring about necessary changes in target firms and enhance shareholder value. Ours is the first study that has tested the proposition that high level of shareholder rights is a substitute for shareholder activism rather than its complement and provided supporting empirical evidence. Ours is also the first study to construct a shareholder rights index to measure these rights conferred by law in 12 major economies of the world where HF activism has been in play.

The paper is structured as follows. In section 2 we review the studies that have examined HF activism in the context of investor activism, the campaign tactics, in particular the formation of wolf-packs and the impact of HF activism on short and long term performance of targeted firms. It also describes the construction of the Shareholder Rights Index to measure the strength of investor protection in different countries. Section 3 discussed the methodology and data. Section 4 presents and discusses our empirical results. We summarise and conclude with Section 5.

2. Literature Review

2.1 HF activism – overview

The impact of shareholder activism on firm value has been the subject of academic investigation for over 30 years now. The profile of activists has changed significantly over time. First it was the corporate raiders in the 1980s undertaking hostile and bust-up takeovers in an attempt to discipline company management and directors. The regulatory changes of the 1990s saw the rise of activist institutional investors by putting more power in the hands of shareholders and increasing their ability to express their views on voting issues. As a result, earlier studies of activism examined the effect of shareholder proposals on value creation. Such shareholder proposals tended to be of an advisory nature only and were not often supported by a majority of company shareholders. In addition, the literature shows that these proposals tended to generate low or no value for shareholders. For example, Wahal (1996) looks at 356 US shareholder proposals between 1987 and 1993 and shows that there is no evidence of significant positive abnormal short- and long-term share price returns following the filing of these proposals. Prevost and Rao (2000) examined 146 governance proposals filed by public pension funds between 1988 and 1994 and reported significant negative wealth impact associated with the announcement of such proposals. The authors used industry and index benchmarks to measure abnormal returns.

More recently the activist arena has been dominated by a different type of activist investors, namely, hedge funds. In the past, hedge funds were frequently the subject of bad press. In the 1990s hedge funds were generally characterised as short term speculators, vultures or 'locusts'. More recently this caricature has been rebutted by empirical evidence showing that hedge funds are more likely to take medium to long term positions in target companies and that through their campaign and engagement with companies these activist investors can bring about value

enhancing changes (Becht, et al., 2015 and Bebchuk, et al., 2015). In addition, owing to the higher expenses associated with certain more impactful activist procedures, such as those involving a proxy fight, these procedures tend to be pursued primarily by hedge funds. According to Gantchev (2013) the use of more effective activist tactics such as proxy votes can be considerably costlier than submitting a shareholder proposal. The author estimates that in the US the average public activist engagement with a proxy fight can result in $10.5 million in expenses, representing approximately two thirds of the total abnormal returns that the average campaign generates. Activist hedge funds tend to be also much more specialised and their portfolios typically consist of 10 to 30 companies while the value of their positions tends to be relatively large (Becht et al., 2015). This approach differs significantly from that of other types of activist investors such as institutional investors who can hold hundreds or thousands of positions in different stocks.

The recent evidence on the effect of hedge fund activists on firm value in the US shows that shareholder returns tend to be enhanced following activist campaigns. For example, Klein and Zur (2008) examine 151 hedge fund campaigns announced between 2003 and 2005 and show that the market reaction around the disclosure (filing of Schedule 13D) date of block share acquisitions by hedge funds is significantly positive and that the positive share price returns tend to persist over a year following the start of the activist campaign. The study uses the Fama-French benchmarking procedure to create size-matched portfolios of firms in order to estimate abnormal returns following the filing of each Schedule 13D. Brav et al. (2008) investigate 882 hedge fund engagements between 2001 and 2006 and report average abnormal returns amounting to 7% during the (-20, +20) days announcement window. The authors also document that the observed positive announcement returns are not reversed during the one-year period subsequent to the activist engagement. Brav et al. (2008) use the Fama-French four factor model to estimate the benchmark

for calculating abnormal returns and conclude that since these abnormal returns persist over a period longer than the (-20, +20) days announcement window they cannot be attributed to market overreaction or temporary price pressures caused by higher trading volumes. They therefore attribute the shareholder value gains to hedge fund engagement.

Zenner, Shivdasani, and Darius (2005) analyse the involvements of 31 hedge funds between 2004 and 2005 and document significant announcement abnormal returns which the authors claim can be primarily attributed to campaigns related to takeover transactions. Greenwood and Schor (2009) investigate a sample of 784 hedge fund campaigns that took place during the period 1993 and 2006 and also find significantly positive abnormal returns following hedge fund involvements. However, the authors argue that the documented positive market reaction is caused by the fact that the hedge funds succeed in getting target companies acquired. The benchmark expected returns in the study are calculated based on the Fama and French (1993) three factor model. Hedge funds thus seem to gain by putting their targets into 'play'.

Similarly, Bebchuk et al. (2015) use a sample of approximately 2,040 engagements announced between 1994 and 2007 to evaluate the long-term effects of hedge fund activism on company performance. The study measures the buy-and-hold abnormal returns (BHAR) following the activist's disposal of ownership in the target firm using a holding period one month after and ending 36 months after the departure of the hedge fund. Expected returns are calculated using the Fama-French four factor model. The authors report average 36-month (60-month) BHAR amounting to 7.17% (-0.29%). Bebchuk et al. (2015) also examine the effects of hedge fund activism on long-term operating performance by examining the change in firm industry-adjusted ROA and Tobin's Q over a period starting three years before the activist's involvement and ending five years after. The authors estimate the benchmark operating performance by matching

companies on the basis of size and age and show that there is no evidence of a negative impact on firm operating performance following the involvement of hedge fund activists. The authors conclude that there is little evidence to support the claim that activists hurt long-term performance through short-sighted "pump-and-dump" trading methods.

Similar to studies which focus on activism in the US, the recent literature on hedge fund activism outside the US demonstrates that activist investors can contribute to shareholder value creation. Becht, Franks and Grant (2015) examine a sample of 362 mostly hedge fund activist involvements in Europe between 2000 and 2008. The authors find significantly positive abnormal returns of 4.4% around the dates of block disclosures. The study also looks at performance differences depending on the outcome of the intervention and finds that the largest abnormal returns are associated with the announcements of restructuring activities such as divestitures and takeovers. Bessler, Drobetz, and Holler (2015) investigate 231 activist engagements in Germany and report that on average activists enhance shareholder value when the effect is evaluated both over the short- and long-term. In line with most US studies, the authors use the Fama-French four factor model to estimate benchmark expected returns. Hamao, Kutsuna and Matos (2010) examine 916 shareholder proposals submitted primarily by hedge funds in Japan during the period 1998 to 2009 and find that long run shareholder returns are not significantly changed following the submission of such proposals. The authors adopt the buy-and-hold abnormal returns methodology and estimate expected returns on the basis of the Fama-French four factor model. In addition, Kruse and Suzuki (2009) study the impact of one activist investor, Y. Murakami's and a number of his aggressive activist funds. The paper provides evidence of large positive BHAR adjusted using the Fama-French four factor model.

Becht et al. (2015) analyse an international sample of 1,740 activist involvements between 2000 and 2010 and find that activist interventions with an outcome result in average calendar time portfolio returns of 8% while interventions without outcome result in 2.3% returns when using the Fama-French four factor benchmark over a period starting in the month of outcome announcement and ending when the hedge fund disposes of its position the target company. The authors conclude that the involvement of hedge funds can lead to positive alpha but that the size of returns is contingent upon the activist achieving the desired outcome form the intervention. The authors suggest that there is uncertainty surrounding the likelihood that the hedge funds will succeed and that the announcements of the outcomes serve to resolve this uncertainty. Becht et al. (2015) also show that the cumulative abnormal returns around outcome announcements can vary dramatically depending on the type of outcome that the hedge fund achieves. The study documents that, measured over a (-20, +20) days event window, interventions resulting in takeovers can generate 9.7% returns, other forms of restructuring can result in 5.6% returns, changes to boards can result in 4.5% returns, while changes to payout policies generate -0.2%.

Two recent studies of the effect of hedge fund activism on company performance incorporate tests that attempt to address the endogeneity issues associated with the analysis of hedge fund engagements. Brav et al. (2015) examine the hypothesis that the target frim would have experienced an improvement in performance even in the absence of an involvement by a hedge fund(s). Specifically, the authors use a difference-in-difference regression analysis to test this hypothesis with the use of a sample of both target and non-target companies. Brav et al. (2015) use plant-level data from the US Census Bureau to estimate the Cobb-Douglas production function with the following independent variables: net capital stock, labour input and material costs. Additional control variables used by the authors include segment and firm size as well as plant

age. The authors show that target companies experience improvements in production efficiency during the three years following engagement.

2.2 HF activists' campaign tactics

Another stream of studies has examined how HF activists conduct their campaign. It is important for these activists who normally hold/ accumulate only about 10 to 15% of the target firms' voting equity at the start of their campaign to enlist the support of other shareholders, especially, the institutional shareholders. Thus HFs need to overtly or covertly seek their support and coordinate their voting behavior so as to maximize the chances of winning the campaign against the incumbent management. One of the important tactics is the formation of wolf-packs (WPs) where by, while the HFs lead the campaign, other investors join the hunt. Briggs (2007) and Coffee and Palia (2015) argue that part of the effectiveness of HF activists is due to their ability to form wolf packs through the acquisition of target shares by other investors who are willing to collaborate and provide support for the HFs campaign. One source of support provided by the wolf pack members is through the higher proportion of voting shares that are controlled by the HF activist which makes the possibility of further undesirable actions, such as proxy fights, more likely (Wong, 2016).

Brav, Dasgupta and Mathews (2016) develop a model of wolf pack activism in which one investor acts as the 'lead' activist and holds a relatively larger block of shares while other investors act as 'peripheral' members of the wolf pack. Through implicit coordination of the efforts of these wolf pack members, the 'lead' activist can play a catalytic role which boosts the aggressiveness of the campaign. As a result, the presence of a wolf pack with a lead activist is associated with higher likelihood of the activist campaign win and resulting in value generation (Brav et al., 2016).

Wong (2016) examines wolf pack activism on the basis of a sample of 1,922 activist campaigns initiated between 1998 and 2014 in the US. The author investigates the trading volume of target companies in the 60-day period before the engagement. Specifically, Wong (2016) divides the share turnover on the date each activist investor triggers the need to file form 13D into turnover caused by the 13D filer and turnover caused by other investors. The author finds that the average share turnover on the date the rule for filing Schedule 13D is triggered is approximately 325% of normal trading volume and that approximately 250% of that is caused by the trades of investors other than the 13D filer. The author interprets this as evidence of wolf pack formation associated with some of the campaigns in the study sample. In addition, Wong (2016) finds evidence that there is evidence of so-called 'coordinated effort' among the different members of a given wolf pack since the same groups of investors appear to engage in different campaigns with different targets. The author shows that the likelihood of pack formation is highest in cases when the target has strong takeover defenses in place.

Wong (2016) provides some evidence on the effect of activist-led wolf packs on campaign outcomes. The author demonstrates that campaigns with wolf packs have a 6% higher probability of success in the sense that the HF activists achieve at least one of their objectives. Activist engagements characterized with the presence of wolf packs also result in 8.3% higher buy and hold abnormal returns measured over the length of the engagement.

Becht et al (2014) use a different measure of wolf pack activism. The authors define wolf pack activist engagements as cases when a given company is targeted by more than one activist investors at the same time. Becht et al (2014) show that wolf pack campaigns are characterized with significantly larger HF stakes. In addition, the returns experienced by investors around the time of engagement disclosure are two percentage points higher for engagements with wolf packs

relative to stand-alone engagements. Finally, the study demonstrates that the likelihood of the HF activist achieving at least one outcome is 78% for campaigns with wolf packs relative to a likelihood of success of 48% for stand-alone campaigns.

Crane, Koch and Michenaud (2017) investigate the impact of investors which are a linked network of institutional holdings, the authors refer to these so-called coordinating groups of shareholders as 'cliques'. The analysis of the study suggests that clique members tend to vote together on proxy ballot issues. Specifically, Crane et al (2017) show that a one-standard deviation increase in coordinated group ownership results in more than twice the number of investor votes against management proposals which are deemed to be of low quality. The authors define low quality management proposals as proposals which are formal shareholder organizations such as the Institutional Shareholder Services (ISS) have recommended against. Crane et al (2017) base their study on a sample of 59, 648 institutional investor-year observations between 1980 and 2013.

The need for other investors to join WPs depends on the extent of shareholder rights enjoyed by investors to persuade or force incumbent managements to act in shareholder interests. Shareholders rights encompass a range of rights e.g. the right to call ordinary or extraordinary meetings to vote on issues, appointment and removal of directors, access to relevant information from their companies etc. Such rights are conferred by corporate law, listing rules of stock exchanges in the case of publicly listed firms, corporate governance codes enforced by law or by financial regulators etc. They may be augmented or curtailed by corporate charters that allow managements much greater discretion.

Where these shareholder rights are strong shareholders may not need the activism of investors like HFs to bring recalcitrant managers into line. They have less incentive to join wolf-packs when they have enough rights to achieve their shareholder-oriented goals by themselves.

Thus shareholder rights regimes in different countries may help or hinder HF campaigns, their ability to form WPs, the campaign outcome and the shareholder wealth effects. Multinational studies of HF activism therefore need to take into account the impact of shareholder rights regimes on these aspects of HF activism. Prior studies of which there are only a few with multinational samples or non-US samples have neglected this issue. We fill this gap in the literature.

2.3 Shareholder Rights Index (SRI)

There have been various attempts from the late 1990s by finance scholars, with the most notable being the pioneering work of LaPorta, Lopez-de-Silanes, Shleifer and Vishny (LLSV) (1998) followed by others (e.g.; LaPorta, Lopez-de-Silanes and Shleifer, 2008; Djankov, LaPorta, Lopez-de-Silanes and Shleifer, 2008; Spamann, 2009, Martynova and Renneboog, 2011) to gauge the level of shareholders rights against the directors' power, trace the differences to the legal origin of the countries (common vs. civil law and other country groups) and study the impact of these differences on shareholder returns and firm value. Two other important studies by Gompers, Ishii and Metrick (2003) and Bebchuk, Cohen and Ferrell (2009) constructed indices of the level of corporate governance including shareholder rights in corporations as a means of testing the relation between corporate governance and firm value.

LLSV (1998) examined the impact of differences in legal protection to investors considering 24 variables in 49 countries, governed by a common law regime or French-civil-law regime. They constructed an anti-director rights index comprising 6 items (e.g. proxy vote by mail allowed, no blocking of shares before a general meeting, threshold of ownership to call a special meeting, etc.) and observed that investor protection was much stronger in common law countries (notably the US and UK) than in civil law countries (e.g. France, Netherlands). German and

Scandinavian origin countries' performance in investor protection was somewhere between these extremes.

Gompers et al. (2003) with US data from the Investor Responsibility Research Center, constructed a Governance Index (G-Index) composed of 24 items and named firms with a low value of the Index as "democracies" and firms with a high value of the Index as "dictatorships". The first category is associated with higher market valuations (Tobin's Q), growth in sales and profitability than firms in second. In essence, the high value of G-Index reflects managerial entrenchment against active shareholders and hostile bidders. Bebchuk et al. (2009) refined the G-Index into the E-Index (Entrenchment Index) with a parsimonious set of six variables[1] and showed it to be significantly associated with higher firm valuation.

However, Spamann (2010) argued that the LLSV results suffered from several weaknesses derived either from inaccuracy of the index values biased in favour of the common law countries and especially the US or from legislative changes in civil-law origin countries that came after the period covered by the initial LLSV study[2]. Spamman (2010), by constructing a corrected anti-director rights index (corrected ADRI), contradicted both the results of the initial LLSV (1998) and the subsequent LLSV (2008) and Djankov et al. (2008) studies which have dealt partially with the previous problems. Spamman (2010) showed that shareholder protection was higher in German law origin countries followed by Scandinavian law countries, while the common law family no

[1] These are: the staggered (or classified) boards, limits to shareholders' by-law amendments, poison pills, golden parachutes, super-majority provisions (SMPs) for mergers and SMPs for charter amendments.

[2] According to Spamman, most of these inconsistencies were caused by the fact that LLSV did not validate the legislation concerning investor protection in each of the countries examined using local lawyers and a few other inaccuracies were caused by not considering all the regulations existed in each country (e.g. those imposed by Stock Exchanges).

longer had the highest score. He also found that the negative relation between investor protection and ownership concentration was no longer significant with the corrected ADRI.

Martynova and Renneboog (2011) compared the status of investor protection (from a shareholders' and creditors' point of view) between 30 European countries and the US and they highlighted the different type of agency problems among them (i.e. shareholders vs. management, large shareholders vs. minority shareholders and between shareholders and creditors) by creating three relevant indices. These indices contain other sub-indices which reflect relative decision rights, appointment rights, trusteeship, or corporate transparency and capture various dimensions of corporate governance and regulatory regimes. The authors used questionnaires filled by leading corporate governance specialists and direct interviews with legal specialists in the above issues such as the corporate law, the stock exchanges regulations, the codes of good practice in each country and the corporate practice. They also explicitly examined the changes in legislation over the period 1990-2005 and they showed that during the decade of 2000s corporate governance legislation converged among these countries. An interesting insight of their results, is that during the end of this period (2005) French legal origin countries approached closely the English legal origin countries from the perspective of shareholder rights protection total index and although, the latter still have a higher value of the index, this is mainly due to the UK and Ireland and not the US which falls short behind the average of French legal origin countries.

However, when the minority shareholders index is examined the best performance is recorded for German origin legal origin countries, followed by English legal origin countries, with the US having the worst performance among them. Overall, the worst performance for shareholders and minority shareholders' protection index was exhibited by Scandinavian legal origin countries. Martynova and Renneboog (2011) suggest that these results are due to the

differences in the agency problems in the US and other countries. The agency problem in most of the European and Asian countries is located between large shareholders and minority shareholders, while in the US it is between management and shareholders (traditional type) due to the dispersed ownership structure and as such the main goal of corporate law is to protect investors from being abused by the investee firm's management. In contrast, "the corporate governance systems prevailing in most European and Asian countries are characterized as stakeholder-based systems (such as the blockholder-oriented, labor-oriented, or state-oriented systems)" and as such they need different corporate governance mechanisms which keep a balance among these participants with an emphasis on protecting minority shareholders.

For our study of hedge fund activism and how it is impacted by shareholder rights and disclosure regimes in different countries, we construct a shareholder rights index (SRI) as well as a Disclosure Severity Index (DSI). In constructing the SRI, we consider some of the variables used in the prior academic studies reviewed above, but rely to a greater degree on the methodologies adopted and variables examined by international organisations, such as the OECD and the European Commission (EC). We consider that this approach is more suitable, since, we examine the level of shareholders rights in 12 different jurisdictions (the majority of them being European countries) based on the legal framework and not on corporate practice. Thus, we rely on information provided by international organizations such as the EC which has the power to issue legal directives or the OECD which issues guidelines thereby indirectly influencing the changes in legislation adopted by several countries. Thus, our main sources of information among others have been the OECD (2017) Corporate Governance Factbook, the OECD (2012) study of board member nomination and election, the European Parliament (2012) study of rights and obligations of shareholders and the directives issued by the EC on the same subject as well as the study by

ShareAction (2017) of the shareholders rights in six European countries. Furthermore, we examined the studies by Shearman and Sterling the law firm (2008, 2011) and several articles about shareholder rights written in the form of Q&A sessions by legal experts (lawyers) which can be found at the Thomson Reuters Practical Law website[3].

Our sample contains 12 countries with significant activity of hedge fund engagements in the period 2000-2014. These countries are: USA, Japan, UK, Germany, France, Netherlands, Norway, Sweden, Switzerland, Canada, South Korea and Hong Kong. Since, we have 7 European countries in our sample, we briefly review the European legal environment regarding shareholder rights. Each European country has its own legislation, with regards to shareholder rights. Therefore, in order to harmonize the legal framework among its members, the European Commission (EC) issued the Shareholder Rights Directive (SRD) 36 in 2007[4], which attempts to promote shareholder rights and shareholder active engagement (both for retail investors, asset managers and institutional investors) and at the same time to protect the rights of minority shareholders. The SRD adopts the view that the effective shareholder control is a necessity in order to achieve and preserve a strong internal corporate governance system. Therefore, in general, the goals of the SRD are to enhance shareholders' rights, via extension of the rules on transparency, proxy voting rights, and ability to participate in general meetings via electronic means, and ensuring that cross-

[3] The website is : https://uk.practicallaw.thomsonreuters

[4] Unfortunately, as Renneboog and Szilagyi (2015) report, from the 27 EU countries which were required to conform to the SRD by August 2009, 14 did not complete the process by January 2010, and the EC threatened action against nine of them in April 2010 by issuing reasoned opinions. From the European countries in our sample, Norway, Sweden and Switzerland have not conformed so far with the provisions of the SRD. On the other hand, the UK, France, Germany and Netherlands, either have done that, or their national legislation (before the passage of the SRD) was already in compliance with it.

border investors' voting rights are able to be exercised. Thus, more specifically, the main SRD provisions grant shareholders the right to:

- gain early notification of the convocation of an Annual General Meeting/AGM or any other GM and all the issues to be discussed in these meetings (a minimum notice period of 21 days is defined which can be reduced, if shareholders agree in a public vote, to 14 days if electronic voting is permitted) in the GMs above
- vote, ask questions, and actively participate in the GM of companies they hold shares in
- participate in the GM by means of written communication, by electronic communication, and by appointment of a proxy vote
- contribute to the agenda of the GM by putting items on the agenda and table draft resolutions for items on the agenda, with a minimum ownership requirement of 5% of the company's share capital
- call a special meeting (also called Extraordinary General Meeting/EGM) about various issues, among them, being the appointment or removal of directors, provided that such shareholders gather independently or collectively at least the same minimum ownership requirement of 5%
- prevent the share blocking by establishing a record date which may not be more than 30 days before the GM
- disclose the voting results on the firm's internet website.

The inclusion of certain variables in our SHRs index was based on the above provisions of the SRD, and the OECD (2017) Corporate Governance Factbook, for each country in our sample.

2.4 Hypotheses concerning impact of country-wise shareholder rights and disclosure rules

In the light of the foregoing review of the literature we hypothesise that SRI will, in general, have a negative impact on the formation of WPs, campaign success of HFs and shareholder value gains to target shareholders following HF campaigns. This reflects our view that HFs act as instruments of change to bring about enhanced corporate governance in target firms and therefore their role is less effective under regimes that have strong shareholder rights and investor protection. Thus our hypothesis is based on the substitution between shareholder rights regimes and HF activism rather than on their complementarity in enhancing corporate governance. As regards the impact on specific change focus of each campaign the above negative impact may be observed where corporate governance change is the focus and less so when HFs seek other changes such as Strategy or Restructuring.

3 Data and Methodology

3.4 Data

We construct an international database of exchange-listed targets of hedge fund activism which covers all engagements announced during January 2000 – December 2014. Our sample of hedge fund engagements is obtained from a number of different sources. First, we identify US hedge fund involvements by looking at Schedule 13D filings to the Securities and Exchange Commission (SEC). This type of filings is a legal requirement for any investor who holds 5% or more of a firm's shares and who intends to impact corporate control. We merge this database with the data provided by Thomson One Banker on activist interventions which covers international engagements by activist investors. We also had access to the data on US hedge fund activism

created by Brav et al. (2015), covering the period between 2000 and 2011. To identify the purpose of each hedge fund engagement we examine the 13D filings and other filings provided by Thomson One Banker. We also perform news searches to substantiate and complement the data obtained from company filings where necessary. Our final sample consists of 1,719 activist interventions. Table 1 shows the definitions of the variables used for the purposes of the analysis performed in this paper.

[Please Insert Table 1 about here]

Table 2 provides a breakdown of our sample per year (Panel A) and country (Panel B). We observe a steady increase in activist engagements until 2012, followed by a considerable drop in 2013-2014. The top three countries with highest number of interventions are the US (1,465), United Kingdom (94), and Canada (81) and taken together these countries account for approximately 95.4% of the interventions in our sample.

[Please Insert Table 2 about here]

Table 3, Panel A provides a breakdown of our sample per intervention outcome. *Completed* hedge fund involvements are defined as involvements for which we were able to identify the outcome of the activist campaign by examining SEC and similar filings as well as performing news searches. We further investigate the completed engagements to identify those where the hedge fund was successful in achieving *at least one* of the proposed changes (*Hedge Fund Win*) and those where the target company managed to avoid having to implement *any* of the proposed changes (*Management Win*). Hedge funds are successful more often than management. Activist investors were successful in achieving some or all proposed changes in 59.4% of the time (1,021/1,719) while management was able to resist having to implement any changes in the remaining 40.6% of

the time (698/1,719). It is noteworthy that in a substantial proportion of cases, targets managed to ward off the HFs.

[Please Insert Table 3 about here]

Table 3, Panel B shows the breakdown of our sample per engagement type. This table is based on the subsample of hedge fund involvements that we define as *Hedge Fund Win*. We group the outcomes in four broad categories depending on the type of change that the hedge fund was proposing: a) *Governance* related change, where the hedge fund seeks to obtain board representation, improve shareholder rights, change company management or management's compensation, etc., b) *Strategy* related change where the hedge since,fund is challenging the current strategic posture of the firm without proposing any specific strategic alternative, c) *Restructuring* related change where the proposed change is related to performing a spin-off, partial or full sale of the company's assets, and d) *Other* types of proposed change that do not fall into the three broad categories presented above. It should be noted that the sum of engagement types is higher than the total number of *Completed* hedged fund interactions in some cases, the hedge fund could propose a number of changes that fall into more than one of the categories that we have created. We note that the largest proportion of engagements involve *Governance* related changes (75.2%), followed by *Strategy* related changes (13.0%), and *Restructuring* related changes (8.1%).

3.2. Methodology

To measure the financial performance of target firms we need to take into account the fact that these companies have a variety of financial characteristics (not just productivity levels, size and age) that are significantly different from those of non-target companies giving rise to endogeneity concerns. Examples of such financial characteristics are firm valuation, liquidity, leverage, and

growth. We believe that it is necessary to account for these key financial characteristics in order to provide a more direct and reliable method for dealing with endogeneity. We implement the Abadie and Imbens (2006) matching procedure in order to perform this more direct and reliable technique of tackling endogeneity. This methodology also allows us to use a sample which consists of companies which belong to non-manufacturing as well as manufacturing industries.

We identified a set of appropriate predictors of the likelihood of being targeted by a hedge fund activist The predictor variables as well as the probability model used for the purpose of implementing the matching procedure are presented in Appendix 2. We use the Abadie and Imbens (2006) matching technique to evaluate the 'average treatment effect' from becoming the target of an activist intervention. According to Colak and Whited (2007), this matching procedure is superior to the other methods such as the propensity score matching (PSM) (Dahejia and Wahba, 2002) and the Heckman bias adjustment procedure (Heckman, 1987) since it does not involve any parametric assumptions regarding the distributions of the variables. Relaxing such assumptions is particularly important when using income and balance-sheet statement items because the distribution of these line items is not accurately captured by the logistic or normal distributions which are the two distributions assumed by the PSM and Heckman matching methods.

One of the important predictor variables is SRI since it is a measure of ease of campaigning by HFs against incumbent managements. Where the statutory and regulatory regime in a country has a high level of shareholder rights, this is likely to strengthen HF campaigns thus encouraging them to launch their campaigns. They also enhance the success of such campaigns through coordination with other shareholders by forming *wolf-packs* (WPs). We now describe in detail the construction of the SRI.

3.2 Construction of the SRI

The Index is composed of fifteen items and it increases when each of these items, described below in details, enhances shareholder rights and decreases when accordingly, each of these items reduces shareholder rights. The items are:

1) **Deadline of notification period of the AGM**. The critical threshold is set to 21 days, as defined by the SRD, and if it is higher than 21 days, which means stronger SHRs, a value of 1 is assigned; if it is equal to 21 days, which means average SHRs, a value of 0.5 is assigned; and if it is lower than 21 days, it means less SHRs, so, a value of 0 is assigned.
2) **Electronic voting**. This item entails the legal obligation of firms to allow electronic voting. If there is such an obligation it increases SHRs, so is assigned a value of 1 and 0 otherwise (less SHRs).
3) **Super-majority provisions (SMPs)**. This item examines the question if certain issues (e.g. changes in capital structure, and company by-laws, share repurchase programmes, mergers, e.tc.) require supermajority voting in favour. We treat this variable in the way Bebchuk et al. (2009) suggest. Thus, if the answer is yes we consider this as a signal of weak SHRs and assign the value of 0; if the answer is no, we treat this as a signal of strong SHRs and assign the value of 1. However, as Martynova and Renneboog (2011) argue, this variable can also be interpreted in the opposite direction (0 strong SHRs and 1 weak SHRs) if the intended purpose is to protect the rights of minority shareholders against large shareholders.
4) **Right of shareholders to call a special meeting**. If they have this right, we assign the value of 1, indicating strong SHRs and 0 otherwise, indicating weak SHRs.
5) **Threshold of ownership at which shareholders can call a special/extraordinary meeting (EGM)**. We set the critical threshold at 5% following the SRD. Thus, if it is lower than 5%, a value of 1 is assigned indicating strong SHRs; if it is equal to 5%, a value of 0.5 is assigned,

indicating an average level of SHRs; and if it is higher than 5%, a value of 0 is assigned indicating weak SHRs.

6) **Ability of shareholders to remove or appoint directors at a special meeting**. If shareholders can do so, it signifies strong SHRs and it takes the value of 1. If the answer is no, it signifies weak SHRs and it takes the value of 0.
7) **Appointment or removal of directors**. If shareholders can affect the appointment and or the removal of directors through their proposals at an AGM, this indicates strong SHRs and takes the value of 1 and 0 otherwise;
8) **Threshold of ownership at which shareholders' proposals can be accepted in an AGM/EGM** (including the appointment/removal of directors). We again set the critical threshold at 5%. Thus, if it is lower than 5% a value of 1 is assigned (strong SHRs); of it is equal to 5% a value of 0.5 is assigned (average SHRs) and if it is higher than 5% a value of 0 is assigned (weak SHRs).
9) **Different (multiple or limited) voting rights** for certain shareholders (e.g. those who have held their shares for specific period of time). If the company can issue shares (other than preference shares) with multiple or limited voting rights, this is an indication of weak SHRs and the value of 0, otherwise it takes the value of 1 (strong SHRs).
10) **Ability of shareholders to appoint or remove directors when they elect the unitary board or any other organ of the corporation** (e.g. the supervisory board or the nomination committee in a two-tier structure). If they have this right this is an indication of strong SHRs and the value of 1 is assigned, otherwise it takes the value of 0 (weak SHRs).

11) **Voting system for the appointment/removal of directors.** This variable combines the way decisions are taken (majority vs. plurality system[5]) regarding the above issue and the way that each shareholder can allocate his/her votes for the election of directors (cumulative vs. non-cumulative system[6]). Majority voting with cumulative counting mechanism of votes is considered to facilitate changes in the management board and to favour also the interests of minority shareholders, so this combination indicates the strongest form of SHRs and it takes the value of 1; if majority voting is combined with non-cumulative system it takes the value of 0.66 (strong SHRs); if plurality voting is combined with cumulative system it takes the value of 0.33 (medium SHRs) and finally if plurality voting is combined with non-cumulative system it takes the value of 0 (weak SHRs)[7].

12) **Employees' right to elect representatives in order to appoint / remove directors** of the unitary board or any other organ of the corporation (e.g. the supervisory board or the nomination committee). If employees have such right it weakens shareholders' rights, so we assign the value of 0 (weak SHRs) and 1 otherwise (strong SHRs).

[5] There are mainly 2 types of voting systems, namely the plurality and the majority ones. With the first one, the person who gets the highest number of votes is elected even if he/she obtains less than half of the votes. With the second one, the candidate in order to win, he should get the 50% or more of the votes. With the majority voting system, it is fairer and easier, at least in theory, for shareholders to remove unwanted directors than with the plurality system (it is less fair since a one candidate-director can only be elected with one vote when there is no other candidate), but it is practically more difficult to attain the election of the directors with the first round of elections, leading to a time consuming procedure which endangers the smooth governance of corporations.

[6] Cumulative voting is the procedure of voting for a company's directors, in which each shareholder is entitled one vote per share multiplied by the number of directors to be elected. This is sometimes known as proportional voting. This is advantageous for individual/minority investors, because they can apply all of their votes toward one candidate. The opposite is the so-called statutory voting (or non-cumulative voting) which is a corporate voting procedure in which each shareholder is entitled to one vote per share and votes must be divided evenly among the candidates or issues being voted on.

[7] Since our SRI construction is based on corporate law to create variables relating with SHRs, we collected information about this item on the basis on what the law allows and not by corporate practice which is limited for the cumulative mechanism in nearly all countries examined in our sample.

13) **Board of Directors structure[8].** If the law prescribes a unitary board, which is the simplest form, we hypothesize that hedge funds and other activists shareholders face a simpler environment to deal with, and hence we assign the value of 1 (strong SHRs); if the law allows for a hybrid or optional board structure, something that leaves options for firms we assign the value of 0.5 (average SHRs) and if finally there is a dual board structure we assign the value of 0 (weak SHRs), as we consider that it involves more bureaucratic and time consuming procedures and usually supervisory boards entail the participation of employees by representatives.

14) **Term of the management board[9]** (for the executive directors in a unitary type) until re-election. If the maximum term in office of the executive directors is every (1) year we assign the value of 1 as a sign of strong SHRs; if the term is higher than 1 year and less than 3 years we assign the value of 0.5 (average SHRs) and if the term is equal to or higher than 3 years we assign the value of 0 (weak SHRs).

15) **Restrictions on voting concentration[10].** If there are powerful restrictions e.g. in the form of poison pills, we assign the value of 0 (weak SHRs); if there are other forms of restrictions

[8] There are mainly two types of board structure. The first is the unitary type (one-tier) which comprises both of executive and non-executive directors and is the simplest form. The second structure is a two-tier one (also called dual type) which is composed of a management board and a supervisory board or a nomination committee and the latter organ appoints/removes the members of the first. A third one is called a hybrid or optional structure (OECD, 2017) in the sense that firms can chose to apply every board structure they want (either a unitary form or a dual one). We use the board structure as a proxy variable of shareholder rights for the first time, as far as we know, in the relevant literature, with the above explained justification.

[9] A staggered board of directors (also known as a classified board) is a board that is made up of different classes of directors. Usually, there are three classes, with each class serving for a different term length from the others.

[10] These restrictions can take various forms, such as poison pills (usually they are shareholder rights plans issued by firms to limit the ability of shareholders to concentrate voting power beyond certain thresholds, typically 10% –15% or more), voting right ceilings which are restrictions prohibiting shareholders from voting above a certain threshold and ownership ceilings which are restrictions prohibiting shareholders from taking ownership above a certain threshold.

(e.g. ceilings in ownership and voting rights) we assign the value of 0.5 (mild SHRs) and if there are no restrictions of any kind we assign the value of 1 (strong SHRs).

In the section that follows we describe the performance of each country in our sample in terms of shareholder rights in relation to the above variables of the Index.

3.3 SRI scores of sample countries

Before we proceed in presenting the performance of SRI of each country[11], in general, as we can observe from the aggregate results presented in table 4, we can note that the best performer in our SRI index (strongest SHRs) is the UK (SRI= 10.16), followed by South Korea (SRI=10.00) and Japan (SRI=10.00). The worst performance (weakest SHRs) is achieved by Norway and Netherlands having the same SRI of 4.83 followed by USA and Switzerland having the same SRI of 5.33. The other countries are closer to the average aggregate value of SRI= 7.87.

[Please Insert Table 4 about here]

If we split them into family groups by legal origin as suggested initially by LLSV (1998), the English legal origin countries (USA, UK, Canada and Hong Kong) achieve the highest average SRI value of 8.75, followed closely by the German legal origin countries (Germany, Japan, South Korea and Switzerland) recording an SRI value of 8.21. Then the Scandinavian legal origin countries (Sweden and Norway) follow with a value of 6.83, with the lowest score in SRI attained by the French legal origin countries (France, and Netherlands) which have value of 6.50. These rankings compare well with those reported by Martynova and Renneboog (2011) and partially (regarding the German family group) with Spamann (2010), highlighting the fact that the highest

[11] Appendix 1 discusses in more detail the level of SHRs based on the legal status for each of the 12 countries examined of our sample. The ratings of the SRI were assigned, upon such detailed information.

performance of English (common law) countries is driven mainly by the UK, Canada and Hong Kong and not by the US which is exhibiting in fact a very low performance in SHRs.

The SRI rankings – both individual countries' and legal family's - offer a few insights into the differences and similarities of legal environments among the countries examined and especially between US (which constitutes the largest field of shareholder activism) and the rest of the world. The US legislation (the Delaware Corporate Governance Law, hereafter the DGCL)[12] is biased in favor of strong powers to management boards and not to the shareholders (and especially to minority shareholders), considering that shareholders have the option of engaging in proxy fights and due to the high dispersed nature of ownership there are no large block holders in the overwhelming majority of large listed US corporations. In contrast, European countries' legislation seems preoccupied with strengthening shareholder rights, and especially the protection of minority shareholders against large block holders, given the highly concentrated ownership structure in European corporations. It seems that a better balance between management board strength and shareholder rights is achieved in the UK first and then in South Korea, Japan and Canada.

4 Empirical Results

4.1 Modelling the likelihood of wolf-packs

We expect that hedge funds' ability to form wolf packs around the announcements of activist engagements is likely to be disadvantaged when the target firm is domiciled in countries with relatively stronger investor protection. To test this idea, we use the SRI as one of the explanatory variables in the model which explains the likelihood of wolf pack formation The SRI captures the

[12] The majority of corporations in the USA prefer to be incorporated under the Delaware Corporate Governance Law (DGCL), because it offers lower corporate taxes. fewer shareholder rights against directors and more anti-takeover defences by firms.

degree of investor protection in each of the counties included in our sample. Table 5 presents the analysis of the impact of cross-country differences in governance quality, measured by the SRI, on the likelihood of wolf pack formation around the announcement of a given activist campaign. A higher value of the SRI indicates stronger shareholder protection. We adopt two different measures of wolf pack formation. In model 1 we define wolf pack formation as activist campaigns in which multiple activists engage with the target at the same time following the methodology in Becht Franks and Grant (2013). In Model 2 we define wolf pack formation as the average abnormal turnover driven by investors other than the hedge fund activist over a period starting 60 days before and ending 60 days after the campaign announcement following the methodology in Wong (2016).

[Please Insert Table 5 about here]

We control for other factors which have been identified to affect the probability of a company's shares being bought by non-HF investors. Collins-Dufresne and Fos (2015) observe that 13D filings are characterised by higher levels of stock liquidity. To account for this liquidity effect we include the variable 'Average Amihud Illiquidity (-120 days to -60 days)' calculated as the ratio of the daily absolute return to the (dollar) trading volume on a given day. We measure the average value of this ratio over a period starting 120 days before and ending 60 days after the announcement of the activist campaign. We also include the market capitalization of the target company as an additional measure of trading liquidity. The release of significant news about the target company in the period before the activist engagement may affect the propensity of activist and other independent investors to stock ownership in the target firm. We include the variable Earnings Surprise Year -1 which reflects the percentage difference between the earning per share outcome for each company relative to analyst consensus estimates.

Furthermore, the recent share price performance and order flow could convey important

information regarding the future share price of the target company and could therefore explain the investor trading behaviour around the time of the activist engagement. We include the variables 'CAAR (-120 days to -60 days)' and 'Average Volume Traded (-120 days to -60 days)' to account for these effects. The former variable measures the Cumulative Average Abnormal Returns of the target company and the latter variable measures the average value of the daily (dollar) traded volume in the period before the activist engagement. Finally, we control for the main financial characteristics of the target company prior to the activist engagement as these characteristics could influence the propensity of investors to accumulate shares in the firm. Specifically, we include the variables 'ROA Y-1' and 'Sales growth (Year-3 to Year-1)' measured as net income before payment of interest divided by total assets and the annual sales growth of the target company during the three years before the announcement of the activist engagement respectively to capture the profitability and revenue growth of the target firm. We also include the variables 'Cash to Assets Year-1' to capture the degree of cash reserves of the target firm and the variable 'Market to book Year -1' to capture the growth opportunities of the target firm.

Consistent with our predictions, we find that the SRI has a negative and statistically significant impact on the likelihood of wolf pack formation in both Models 1 and 2 suggesting that activist investors are less likely to be able to benefit from the support offered by wolf packs in countries with stronger investor protection.

4.2 Determinants of HF campaign outcome

Next, we examine the factors which can influence the outcome of the activist engagement. The main factor of interest is the degree of investor protection, measured by the SRI, in the country where the target company is domiciled. Table 6 presents the results from this analysis where the dependent variable is an indicator variable which takes the value of one when the activist achieves

at least one outcome and zero otherwise. The explanatory variables include the same controls as those presented in analysis of the likelihood of wolf pack formation. Specifically, we control for the liquidity of the target company stock, for the release of significant news about the target company, for recent share price performance and order flow as well as for the financial characteristics of the target firms. Following Becht et al. (2013) we also account for the length of the activist engagement, whether the company was a target of activism before the current engagement, whether there is a presence of investor wolf pack, the size of the activist's stake at the beginning of the engagement as well as the percentage of closely held shares.

[Please Insert Table 6 about here]

The results show that activists are significantly less likely to succeed in achieving any win when they engage targets domiciled in countries with stronger investor protection. This finding is evidenced by the negative and statistically significant coefficient for the variable, SRI. The result supports the idea that activist investor's engagements serve as a corporate governance tool for which there is a higher need in countries with relatively weaker investor protection. In countries with relatively stronger shareholder/ investor protection, there is less necessity for the involvement of activist investors and, as a result, the engagements of activists in targets domiciled in the latter countries are less likely to be successful. In those countries in which incumbent managements are already constrained by law to respect shareholders' rights, activists' role as change-makers may be somewhat redundant.

It is, however, interesting that, after controlling for shareholder protection in different countries, we find that formation of wolf packs has a strong and positive influence on the success of a HF campaign. Thus, while a high level of shareholder rights reduces the chances of a HF win in a country, campaign tactics like WP formation can nevertheless offset this disadvantage and

improve the chances of a HF win. Indeed, the marginal probability of a HF win is 14.8% for HFs supported by wolf-packs but it is only 2.3% for SRI. Thus strong SRI does not altogether negate the effectiveness campaign tactics. This view is strengthened by the significant positive impact of the toehold ownership that HFs have at the start of their campaign. It also appears that a short, sharp campaign is more likely to be successful than a protracted one, presumably because the latter might allow the target management to bolster its defences and counter-attack. A short campaign has a marginal probability of HF win of 3%.

We also investigate the impact of investor protection on the likelihood of achieving a specific change focus that HF activists want the target firm to bring about. The results are presented in Table 7. We distinguish among the following change focus: a) Governance (Model 1), where the hedge fund seeks to obtain board representation, improve shareholder rights, change company management or management's compensation, etc. b) Strategy (Model 2), where the hedge fund is challenging the current strategic posture of the firm without proposing any specific strategic alternative; c) Restructuring (Model 3), where the proposed change is related to performing a spin-off, partial or full sale of the company's assets; and d) Other (Model 4), where types of proposed change that do not fall into the three broad categories presented above. All regression models include the same control variables as the ones used in the analysis of the overall likelihood of the activist investor achieving at least one change focus (shown in Table 5).

[Please Insert Table 7 about here]

We find that the activists are less likely to archive a Governance change focus in countries with relatively stronger investor protection. Since enhanced shareholder rights enhance corporate governance, this result reinforces the idea that activist investor's engagements serve as a corporate governance mechanism for which there is a higher need in countries with relatively weaker

investor protection. It appears that achieving a governance-related change in countries which already have a legal framework with strong investor protection is not as necessary as getting companies to implement other types of changes linked to the business strategy or operations.

Table 7 points to the differential impact of campaign characteristics on the specific change focus of a successful HF campaign. While a shorter campaign is helpful when governance is at issue, a longer campaign is needed when the HFs campaign for unspecified change in Strategy. Campaign against a previously targeted firm is effective when Restructuring is demanded and not when other issues are at stake. A campaign for Restructuring is also more likely to be successful when supported by wolf-packs. Toehold has a significant positive impact when Governance change is demanded but has a negative impact when Other issues are in play. It appears that campaign tactics have to be tailored to the desired change focus so as to significantly improve the chance of success. 'One-size-fits-all' approach is unlikely to be an effective tactic.

Institutional ownership has a positive impact on campaign change focus when Governance, Strategy and Restructuring are the focus of the campaign but not otherwise. High level of trading in the target's stock around the HF activist campaign announcement is positively associated with successful change focus for HFs irrespective of the campaign focus. Overall the results in Table 7 show that HF campaign effectiveness and success may depend on the type of change focus that motivates the campaign.

4.3 SRI impact on long term shareholder gains to targets

In the final part of our analysis we analyse the impact of cross-country differences in investor protection on the performance of companies following activist engagements. We measure company performance using the buy-and-hold-abnormal returns (BHARs) of target companies measured over the following periods surrounding activist engagements: a) starting one month

before and ending 12 months after the activist engagement announcement (Model 1); b) starting one month before and ending 24 months after the activist engagement announcement (Model 2); and c) starting one month before and ending 36 months after the activist engagement announcement (Model 3).

To measure the abnormal returns over an appropriate benchmark portfolio of stocks, we adopt the Abadie and Imbens (A&I) (2006) matching procedure which enables us to identify the appropriate peers of the target firms instead of benchmarking such returns against the traditional benchmarks. The A&I procedure is a 2-step one with the construction of a Probit model to predict which firms are likely to be targets of a HF activist campaign as the first step. At the second step, we estimate probabilities from the model to identify a control sample of firms that have the same probability (propensity) as the actual targets. At this step, we apply some screening criteria to ensure that the HF target i.e. treated sample is reliably close to the control sample.

This use of propensity-matched control sample of 'pseudo-targets' to measure the shareholder value gains performance of HF target shareholders has several advantages over the more conventional approaches based on the market model, the Fama-French 3 or 4 factor models etc., since it is less arbitrary as a benchmark, is carefully constructed to capture the firm-characteristics that make firms susceptible of HF activism targeting and provides a benchmark that has the same propensity to being targets. Most importantly, our approach addresses the endogeneity problem that HF targeting may be an endogenous decision and the treatment effects i.e. shareholder value gains may be the result of the inherent characteristics of the targets rather than the treatment i.e. HF targeting *per se*. Since the treated sample and the pseudo-target sample have the same inherent firm characteristics profiles, the treatment effects are measured free from the endogeneity bias.

The Probit prediction model used to identify the comparable firms is presented in Appendix 2.

This model includes the same control variables as the ones used in the analysis of the overall likelihood of the activist investor achieving at least one change focus (shown in Table 6). The significant predictor variables that increase the probability of HF targeting are highly plausible: weaker financial performance (ROCE), negative earnings surprise and lower sales growth; lower returns to shareholders (lower Total return and dividend yield); and lower stock market valuation (smaller Market Cap, lower Forward PER, and greater Undervaluation). Interestingly, targets have lower leverage (Net debt to market cap) suggesting that activists see the potential for higher leverage to increase equity value. Further, where the targets have a tighter ownership concentration (Closely held shares), it deters HF targeting. Finally, increased trading in the target shares (Share turnover) around the announcement period makes targeting more likely suggesting some churn in the ownership of target firms in anticipation of HF announcement or HF win.

Table 8 presents the regression of BHARs on their possible determinants The main variable of interest is the SRI which loads with a negative and statistically significant coefficient in all the models presented in Table 8. This result suggests that company performance is worse following activist investor engagements in countries with relatively stronger investor protection. This finding lends additional support to the hypothesis that activist investor's engagements serve as a corporate governance device for which there is a greater need in countries with relatively weaker investor protection. In countries with relatively stronger investor protection the engagement of activist investors is likely to exert unnecessary pressure on target firms' management and act as a distraction, thereby making it more difficult for these companies to achieve the same level of value creation as identical firms which are not the target of an activist.

[Please Insert Table 8 about here]

Our analysis further demonstrates that target performance is significantly worse when the activist engagement leads to the implementation of at least one of the changes proposed by the activist investors. This finding is evidenced by the negative and statistically significant coefficient corresponding to the dummy variable 'Hedge Fund Win'. These findings indicate that the hedge funds' engagement exerts a detrimental effect on company management by either disturbing the normal operations of the business or proposing changes that are not appropriate given the specific circumstances/characteristics of the targets.

5 Summary and conclusions

Their role of hedge fund activists as an instrument of improved corporate governance resulting in shareholder value creation has been studied by a number of scholars. Our paper contributes to the literature on activism in general and HF activism in particular. We fill the gap in this literature concerning the impact of the shareholder rights regimes in different countries on the ability of HFs to campaign against errant incumbent managements, coordinate other investors, win their campaign, bring about necessary changes in target firms and enhance shareholder value. Ours is the first study that has tested the proposition that high level of shareholder rights is a substitute for shareholder activism rather than its complement and provided supporting empirical evidence. We find that in countries with strong legal regimes the likelihood of WP formation is lower. We also show that strong shareholder protection reduces the chances of a HF campaign win, in particular, when such campaigns seek corporate governance changes. Finally, we find that long term buy-and-hold-returns are lower following HF campaigns in countries with strong shareholder protection. The results are consistent with the idea that strong shareholder rights regimes make target managements more responsive to shareholder concerns, and, as a result, these regimes also make HF activism less relevant and effective. The impact of such regimes on the incidence of HF

activism, the effectiveness of HF campaigns in changing the target management governance, policies and strategies and in enhancing shareholder value appears to be diminished. Strong shareholder rights regimes also appear to make HF efforts to coordinate other shareholders in their campaign less effective and successful. It is also logical to expect that any shareholder value gains following HF activist campaigns may be less when shareholder rights regimes are stronger.

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Table 1. Variable Definitions

Name	Definition
Shareholder Rights Index	An Index composed of fifteen items. The index increases when each of these items enhances shareholder rights and decreases when each of these items reduces shareholder rights. The items included in the index are: 1. The deadline of notification period of the AGM; 2. Whether firms allow eelectronic voting; 3. Whether certain issues require super-majority provisions; 4. The right of shareholders to call a special meeting; 5. The threshold of ownership at which shareholders can call a special/extraordinary meeting; 6. The ability of shareholders to remove or appoint directors at a special meeting; 7. Whether shareholders can affect the appointment and or the removal of directors through their proposals at an AGM; 8. The threshold of ownership at which shareholders' proposals can be accepted in an AGM/EGM; 9. Different (multiple or limited) voting rights 10; Ability of shareholders to appoint or remove directors when they elect the unitary board or any other organ of the corporation; 11. Voting system for the appointment/removal of directors; 12. Employees' right to elect representatives in order to appoint / remove directors; 13. The Structure of the Board of Directors; 14. Term of the management board; 15. Restrictions on voting concentration.
Institutional Ownership Year 0	The proportion of shares outstanding that is held by institutional investors in the year of activist engagement.
Average Amihud Illiquidity (-120 days to -60 days)	The average value of the ratio of the daily absolute return to the (dollar) trading volume on the day. The average is measured over a period starting 120 days before and ending 60 days after the announcement of the activist campaign. This ratio captures the absolute (percentage) price change per dollar of daily trading volume, or the daily price impact of the order flow.
Closely held shares	the percentage of shares that are owned by company insiders
Average Volume Traded (-120 days to -60 days)	The average value of the daily (dollar) traded volume. The average is measured over a period starting 120 days before and ending 60 days after the announcement of the activist campaign. We take the natural logarithm of this variable for the purposes of the regression analysis.
Market capitalisation (log) Year -1	The market capitalization of the target company is measured as of the end of the fiscal year prior to the year of activist engagement. We take the natural logarithm of this variable for the purposes of the regression analysis.
ROA Y-1	Net income before payment of interest divided by total assets. The ROA of the target company is measured as of the end of the fiscal year prior to the year of activist engagement.
Sales growth (Year-3 to Year-1)	Measure of the annual sales growth of the target company during the three years before the announcement of the activist engagement.
Cash to Assets Year-1	Measure of the target company's liquidity given by the ratio of cash to total assets as of the end of the fiscal year prior to the year of activist engagement.
Earnings Surprise Year -1	Percentage difference between the earning per share outcome for each company relative to analyst consensus estimates. This variable is measured as of the end of the fiscal year prior to the year of activist engagement.
Market to book Year -1	The ratio of market capitalisation to book value of equity of the target company. This variable is measured as of the end of the fiscal year prior to the year of activist engagement.
CAAR (-120 days to -60 days)	Cumulative Average Abnormal Returns of the target company. The average is measured over a period starting 120 days before and ending 60 days after the announcement of the activist campaign. Abnormal returns are calculated relative to each target company's local index as identified by the Datastream database.

Name	Definition
Campaign length (log)	The number of days between initial disclosure and exit of the activist investor. We take the natural logarithm of this variable for the purposes of the regression analysis.
Previous target	A dummy variable which indicates whether (1) or not (0) a given company is a previous target of activist investors in our sample.
Ownership at start of campaign	The stake of the activist investor at the announcement of the engagement.
Activist Wolf Pack Dummy	A dummy variable which indicates whether (1) or not (0) multiple activist investors engage the company at the same time.
Abnormal Turnover by Other Investors	The average abnormal turnover driven by investors other than the hedge fund activist over a period starting 60 days before and ending 60 days after the campaign announcement.
Hedge Fund Win	Activist engagements where the hedge fund was successful in achieving *at least one* of the proposed changes
Management Win	Activist engagements where the company managed to avoid having to implement *any* of the proposed changes
Governance	*Governance* related change, where the hedge fund seeks to obtain board representation, improve shareholder rights, change company management or management's compensation, etc.,
Strategy	*Strategy* related change where the hedge fund is challenging the current strategic posture of the firm without proposing any specific strategic alternative,
Restructuring	*Restructuring* related change where the proposed change is related to performing a spin-off, partial or full sale of the company's assets
Other	*Other* types of proposed change that do not fall into the three broad categories presented above.

Table 2. Sample distribution per year, country, region and industry

Panel A: Activist engagements by year

Year of engagement announcement	Number of engagements	Percent
2000	23	1.3%
2001	31	1.8%
2002	42	2.4%
2003	33	1.9%
2004	40	2.3%
2005	52	3.0%
2006	73	4.2%
2007	94	5.5%
2008	119	6.9%
2009	116	6.7%
2010	133	7.7%
2011	253	14.7%
2012	305	17.7%
2013	214	12.4%
2014	191	11.1%
Total	1,719	100%

Panel B: Activist engagements by country

Country	Number of engagements	Percent
United States	1465	85.2%
United Kingdom	94	5.5%
Canada	81	4.7%
Germany	27	1.6%
France	18	1.0%
Japan	9	0.5%
Netherlands	9	0.5%
Sweden	5	0.3%
Switzerland	4	0.2%
Norway	3	0.2%
Hong Kong	2	0.1%
South Korea	2	0.1%
Total	1,719	100%

Table 3. Sample distribution per outcome and type

Panel A: Activist engagements by outcome

Engagement outcome	Number of engagements	Percent
Hedge Fund Win	1,021	59.4%
Management Win	698	40.6%
Total	1,719	100%

Panel B: Breakdown of successful activist engagements by type.

Engagement type	Number of engagements	Percent
Governance	911	89.2%
Strategy	259	25.4%
Restructuring	155	15.2%
Other	18	1.8%
Total	1,021	-

Notes: The sample covers the period 1990 - 2014. The sample of hedge fund involvements is obtained from the Thomson One Banker database.

Table 4. Distribution of Shareholder Rights Index scores for sample countries

Panel A: Aggregate Shareholder Rights Index (SRI) scores by individual countries

Country	Aggregate SRI Score
United States	5.33
United Kingdom	10.16
Canada	9.83
Germany	7.50
France	8.16
Japan	10.00
Netherlands	4.83
Sweden	8.83
Switzerland	5.33
Norway	4.83
Hong Kong	9.66
South Korea	10.00
Average	***7.87***
Median	***8.50***

Panel B: Aggregate Shareholder Rights Index scores by Legal Family Groups

Legal Family	Aggregate SRI Score
English	**34.98**
Average	*8.75*
Median	*9.75*
German	**32.83**
Average	*8.21*
Median	*8.75*
Scandinavian	**13.66**
Average	*6.83*
Median	*6.83*
French	**12.99**
Average	*6.50*
Median	*6.50*

Notes: The English legal origin countries includes USA, UK, Canada and Hong Kong, the German legal origin countries include Germany, Japan, South Korea and Switzerland, the Scandinavian legal origin countries include Sweden and Norway, the French legal origin countries include France and the Netherlands.

Table 5. Analysis of the likelihood of wolf pack formation.

	Model (1) Activist Wolf Pack Dummy	Model (2) Abnormal Turnover by Other Investors
Shareholder Rights Index	**-0.103****	**-0.857*****
	(-2.164)	(-6.642)
Ownership Structure		
Institutional Ownership Year 0	0.00646	**-0.0466****
	(0.927)	(-2.059)
Average Amihud Illiquidity (-120 days to -60 days)	-0.8625	0.6085
	(-1.129)	(0.193)
Closely held shares	-0.223	-0.048
	(-0.764)	(-0.168)
Average Volume Traded (-120 days to -60 days)	0.105	-0.0962
	(1.124)	(-0.332)
Target Characteristics		
Market capitalisation (log) Year -1	0.0527	**0.615*****
	(1.393)	(5.454)
ROA Y-1	-0.00149	0.00703
	(-0.400)	(0.331)
Sales growth (Year-3 to Year-1)	**0.590***	**1.850*****
	(1.691)	(2.603)
Cash to Assets Year-1	-0.222	0.759
	(-0.459)	(0.712)
Earnings Surprise Year -1	-0.241	0.166
	(-1.566)	(0.463)
Market to book Year -1	**0.0684***	-0.0446
	(1.760)	(-0.519)
CAAR (-120 days to -60 days)	-0.216	**1.012*****
	(-1.301)	(2.790)
Industry & Year Fixed Effects	Yes	Yes
Constant	**-1.489****	-2.409
	(-2.520)	(-1.285)
Observations	1,719	1,719
R-squared	0.111	0.176

Notes: The sample covers the period 2000 - 2014. Robust z-statistics and t-statistics are presented in parentheses. Model 1 is a probit regression which examines the probability of wolf pack formation. The activist wolf pack dummy takes the value of 1 if multiple activists engage the target at the same time and zero otherwise. Model 2 is a linear regression which examines the average abnormal turnover driven by investors other than the hedge fund activist over a period starting 60 days before and ending 60 days after the campaign announcement. *** p<0.01, ** p<0.05, * p<0.1

Table 6. Determinants of Activist Engagement Outcomes.

	Model (1) Hedge Fund Win Dummy	Model (1) Marginal probabilities
Shareholder Rights Index	**-0.0680****	**-2.29%**
	(-1.991)	
Campaign Characteristics		
Campaign length (log)	**-0.0874****	**-2.95%**
	(-2.203)	
Previous target	-0.0406	-1.36%
	(-0.353)	
Activist Wolf Pack Dummy	**0.506*****	**14.76%**
	(2.602)	
Ownership at start of campaign	**0.0209*****	**0.70%**
	(3.004)	
Ownership Structure		
Institutional ownership year 0	0.100	5.44%
	(1.172)	
Average Amihud Illiquidity (-120 days to -60 days)	0.8119	27.35%
	(1.164)	
Average Volume Traded (-120 days to -60 days)	0.0582	1.96%
	(0.656)	
Closely held shares	-0.1107	-3.73%
	(-0.479)	
Target Characteristics		
ROA Y-1	0.174	1.16%
	(1.401)	
Market capitalisation (log)	0.0309	1.04%
	(1.044)	
Sales growth (Year-3 to Year-1)	0.0750	2.53%
	(0.275)	
Cash to Assets Year-1	0.360	12.14%
	(0.988)	
Earnings Surprise Year -1	0.0853	2.87%
	(0.795)	
Market to book Year -1	0.0193	0.65%
	(0.565)	
CAAR (-120 days to -60 days)	-0.167	-5.62%
	(-1.287)	
Industry & Year Fixed Effects	Yes	
Constant	0.784	
	(1.457)	
Observations	1,719	
Pseudo R-squared	0.0911	

Notes: The sample covers the period 2000 - 2014. Robust z-statistics are presented in parentheses. Model 1 is a probit regression which examines the probability of the activist achieving at least one successful outcome. *** p<0.01, ** p<0.05, * p<0.1

Table 7. Determinants of Specific Outcome Types.

	Model (1) Governance	Model (2) Strategy	Model (3) Restructuring	Model (4) Other
Shareholder Rights Index	**-0.117*** **	-0.0376	-0.0331	-0.0242
	(-3.463)	(-0.995)	(-0.734)	(-0.396)
Campaign Characteristics				
Campaign length (log)	**-0.144*** **	**0.212*** **	0.0862	-0.0754
	(-3.883)	(3.915)	(1.557)	(-1.096)
Previous target	-0.111	0.0700	**0.388** **	0.214
	(-0.989)	(0.511)	(2.441)	(0.872)
Activist Wolf Pack Dummy	0.131	0.269	**0.854*** **	0.248
	(0.728)	(1.303)	(4.019)	(0.717)
Ownership at start of campaign	**0.0197*** **	-0.00535	0.0128	**-0.0328** **
	(3.046)	(-0.753)	(1.587)	(-2.319)
Ownership Structure				
Institutional ownership year 0	**0.474** **	**0.469** **	**0.332** *	0.304
	(2.481)	(2.461)	(1.722)	(1.544)
Average Volume Traded (-120 days to -60 days)	**0.316*** **	**0.435*** **	**0.363*** **	**0.246** *
	(2.809)	(3.629)	(3.251)	(1.841)
Average Amihud Illiquidity (-120 days to -60 days)	-0.1221	**-0.1447** *	0.2398	-0.1162
	(-0.596)	(-1.707)	(0.769)	(-1.128)
Closely held shares	0.598	0.207	0.544	0.728
	(1.084)	(1.172)	(0.866)	(0.947)
Target Characteristics				
Market capitalisation (log)	-0.00357	0.0192	**0.0916** **	-0.0197
	(-0.123)	(0.579)	(2.449)	(-0.268)
Sales growth (Year-3 to Year-1)	0.0410	0.0113	-0.352	-1.021
	(0.154)	(0.0351)	(-0.996)	(-1.392)
Cash to Assets Year-1	0.292	0.460	0.364	1.115*
	(0.817)	(1.128)	(0.717)	(1.682)
Earnings Surprise Year -1	0.126	0.139	0.0143	-0.194
	(1.197)	(1.170)	(0.106)	(-0.792)
Market to book Year -1	0.0375	0.00181	-0.00601	0.0347
	(1.170)	(0.0499)	(-0.142)	(0.521)
CAAR (-120 days to -60 days)	**-0.270** **	-0.215	**0.309** **	**0.547** **
	(-2.153)	(-1.454)	(2.005)	(2.250)
ROA Y-1	0.0429	0.147	0.0762	0.127
	(0.520)	(1.621)	(0.674)	(0.757)
Industry & Year Fixed Effects	Yes	Yes	Yes	Yes
Constant	**0.991** *	**-2.062*** **	**-2.059*** **	-0.661
	(1.816)	(-2.859)	(-2.914)	(-0.592)
Observations	911	259	155	18
Pseudo R-squared	0.083	0.101	0.121	0.193

Notes: The sample covers the period 2000 - 2014. Robust z-statistics are presented in parentheses. Models 1 through 4 are probit regressions which examine the probability of the activist achieving at least one specific outcome. The dependent variable in Model 1 takes the value of one if the activist achieves at least one governance related change focus and zero otherwise. The dependent variable in Model 2 takes the value of one if the activist achieves at least one strategy related change focus and zero otherwise. The dependent variable in Model 3 takes the value of one if the activist achieves at least one reorganization related change focus and zero otherwise. The dependent variable in Model 4 takes the value of one if the activist achieves at least one change focus which does not fall under any of the previous three categories and zero otherwise. *** p<0.01, ** p<0.05, * p<0.1

Table 8. Determinants of Performance following activist engagements.

	(1) BHAR t-1m to t+12m	(2) BHAR t-1m to t+24m	(3) BHAR t-1m to t+36m
Shareholder Rights Index	**-0.0211****	**-0.0385****	**-0.0366****
	(2.123)	(2.368)	(2.113)
Campaign Characteristics			
Campaign length (log)	-0.0597	-0.0109	-0.0133
	(-0.553)	(0.638)	(0.735)
Previous target	**-0.0358****	**-0.0268****	**-0.0868*****
	(-2.265)	(-2.019)	(3.154)
Activist Wolf Pack Dummy	**-0.0608*****	**-0.0396****	**-0.0499****
	(-2.772)	(-2.078)	(-2.021)
Ownership at start of campaign	**-0.0521*****	**-0.0278*****	**-0.0916*****
	(-2.231)	(-2.649)	(-2.884)
Hedge Fund Win Dummy	**-0.0486***	**-0.0790***	**-0.0211****
	(-1.689)	(-1.713)	(-2.423)
Ownership Structure			
Average Amihud Illiquidity (-120 days to -60 days)	**-0.1404***	-0.1642	-0.5230
	(-1.952)	(-1.501)	(-0.409)
Closely held shares	-0.0257	-0.0280	-0.0387
	(0.0589)	(-0.546)	(-1.021)
Average Volume Traded (-120 days to -60 days)	0.00527	-0.0614	0.107
	(0.0787)	(-0.582)	(0.822)
Institutional ownership year 0	-0.0287	-0.0668	**-0.0157*****
	(-0.690)	(-1.305)	(-2.706)
Constant	0.0445	0.0648	0.0845
	(0.0288)	(0.259)	(-0.287)
Industry & Year Fixed Effects	Yes	Yes	Yes
Observations	1,719	1,719	1,719
R-squared	0.067	0.068	0.068

Notes: The sample covers the period 2000 - 2014. Robust t-statistics are presented in parentheses. Models 1 through 3 are least square regressions which examine the performance of targets following the engagement of activist investors. The dependent variable on Model 1 measures the Buy-and-Hold abnormal returns (BHAR) over a period starting one month before and ending 12 months after the activist engagement. The dependent variable on Model 2 measures the Buy-and-Hold abnormal returns over a period starting one month before and ending 24 months after the activist engagement. The dependent variable on Model 3 measures the Buy-and-Hold abnormal returns over a period starting one month before and ending 36 months after the activist engagement. BHAR are adjusted to each target company's non-target peer which is identified using the Abadie and Imbens (2006) matching procedure. In addition, *** p<0.01, ** p<0.05, * p<0.1

Appendix 1: Additional Notes on the Shareholder Rights Index
English legal origin group of countries (US, UK, Canada and Hong Kong)

In the US, under the Delaware Corporate General Law (DCGL), shareholders have not the right to call a special meeting (EGM) unless the certificate of incorporation or the company bylaws state otherwise. Consequently, shareholders cannot remove or appoint directors at a special meeting[13]. Also, shareholders cannot effect the appointment/removal election of directors through their proposals at an AGM[14]. As a consequence of the DCGL above regulations, in general, shareholders have not the real right to appoint and or remove directors when they elect the unitary board, but only to approve or not (withhold their votes) the management's proposals. If shareholders wish to propose their own director nominees for a vote at the AGM, they can do so, in what is referred to as a "proxy contest," subject to compliance with "advance notice" provisions in the company's bylaws. The dominant voting system for the election/discharge of directors is the relative majority, also known as plurality voting system[15]. Although minority shareholders of U.S. companies usually do not have any specific rights to appoint directors, a company's organisational documents may provide for cumulative voting .

The board structure is unitary combining both executive and non-executive directors. Typically, under the DCGL the maximum term in office (tenure) of the executive directors is one year, because it requires their annual election. However, under the same law it is possible to stagger[16] the terms of directors, ensuring that only one-third come up for election each year (what is called a "classified BoD"). Thus, Delaware law permits the creation of up to three classes of directors that are elected triennially. In this case the maximum term of directors on board is 3 years. There are restrictions on voting concentration, as under DCGL, it is possible to issue shareholder rights plans ("poison pills")[17] that limit the ability of shareholders to concentrate voting power beyond certain thresholds, typically 10% – 15% or more.

The US is characterized by a few aspects that strengthen SHRs. These are: a long notification period of 40 days for calling an AGM, which is above the limit of 21 days set by the SRD and eelectronic voting is allowed; in general, there are no issues that require a supermajority provision (SMP) (simple majority is adequate[18]); and employees do not have the right by electing representatives to appoint and or remove directors of the unitary board.

Due to the rankings of the US with respect mainly to the above items, the SRI value for US is 5.33, one of the lowest ones after Norway and Netherlands.

UK has the highest score of SRI (10.16) in our sample. This is mainly because shareholders holding a 10% or more share capital have the right to call an EGM and bring proposals in an AGM including the appointment/removal of directors of a unitary board, which is not staggered (annual election). Furthermore, electronic voting is allowed, the issue of share with multiple or limited voting rights is not allowed and the election of directors is done via a majority

[13] Only, by the Model Business Corporation Act (MBCA), which is not the dominant law in the US, shareholders having 10% of ownership are entitled to such right. Thus, we decided to judge our rankings in constructing the SDI for the US on DCGL and not the MBCA.

[14] This is only possible for companies domiciled in states adopting the MBCA law and the relevant threshold is 1%.

[15] Corporate practice in the US after 2006 changed in favour of the majority system as noted by Sherman and Sterling (2011) but because we decided to construct our index based solely on "hard" law, we do account for this. However, we estimated the SRI for the US considering this change, but the main classification results did not alter, i.e. the SRI of the US slightly improved but it did not change classification relative to the other countries.

[16] However, staggered boards are becoming less frequent among the largest US listed companies, mainly due to shareholder activism which argues that they are only useful as a management entrenchment device.

[17] In contrast, with the majority of other jurisdictions, (e.g. Netherlands, Japan), the corporate law of most U.S. states allows a board of directors to adopt defensive measures to oppose an unwanted takeover bid even without shareholder approval, subject to the directors' fiduciary duties. Such an example may be that a board may adopt a shareholder rights plan ("poison pill") without a shareholder vote in response to a takeover bid, even if a majority of the shareholders' desire to tender into the takeover bid. In such cases the directors' actions will be under judicial examination.

[18] In fact, the US is the only country in our sample in which an SMP is not required for certain serious corporate issue. In all the other countries the SMPs are required because they are considered as a means to protect minority shareholders' interests.

system while cumulative voting is not allowed. In general, the corporate governance law of the UK was over-compliant with the SRD before its implementation[19].

Canada has also a high score of SRI (9.83). This is mainly due to a long notification period for an AGM (up to 60 days) and to the fact that shareholders holding a 5% or more of the share capital have the right to call an EGM and bring proposals in an AGM including the appointment/removal of directors of a unitary board. The board is not staggered in essence and the election of its members takes place usually from 1 to 3 years. Furthermore, electronic voting is allowed and there are no restrictions on voting concentration. However, the issue of shares with multiple or limited voting rights is allowed and until 2014 the plurality voting system for the election of directors was dominant while cumulative mechanism of counting the votes was allowed.

Hong Kong achieves a high score of SRI (9.66). This can be mainly attributed to the fact that the notification period for calling an AGM is set to 21 days (SRD threshold), the shareholders' right to call an EGM if they hold a 5% or more of the share capital and with only a 2.5% of ownership accordingly to bring proposals in an AGM including the appointment/removal of directors of a unitary board (yet with a long term of 3 years). Furthermore, electronic voting is allowed, the issue of shares with multiple or limited voting rights is not allowed and the election of directors is done via a majority system while cumulative voting is not allowed.

German legal origin group of countries (Germany, Japan, South Korea and Switzerland)

Germany attains a low score (below the average 7.89) with SRI score of 7.5. This is mainly caused by the fact that shareholders cannot directly influence the appointment /removal of directors of the Management Board (MB) but only indirectly by the election of the members of the Supervisory Board (SB) which in turn appoints/discharges the members of the MB (Germany has a dual board structure with an MB and an SB). However, it requires a supermajority provision (66.66%) to dismiss members of the SB before the end of their term which is set to 5 years. Furthermore, by the co-determination rules (which concern the majority of listed firms), the SB should include employees' representatives proportionally with the size of the firm and the number of workers employed, hence shareholders cannot influence the appointment/dismissal of the employee representatives in the SB. Also, there are restrictions on voting concentration. On the other hand, the notification period for calling an AGM is set to 30 days (higher than the threshold of 21 days), electronic voting is allowed and shareholders can call an EGM or bring proposals to an AGM if they possess the 5% or more of the share capital. In addition to these, the election of directors is done via a majority system while cumulative voting is allowed and the issue of shares with multiple or limited voting rights is not allowed.

Japan, although it allows the issuance of poison pills, it has a short notification period of 14 days for calling an AGM and does not allow electronic voting. Moreover, it is characterized by a low 3% threshold of ownership for granting the right to shareholders to call an EGM, the ability of shareholders to bring proposals to an AGM/EGM (including the appointment or removal of directors) if they gather the 1% threshold of ownership and the fact that the firm cannot issue shares with multiple or limited voting rights. Furthermore, the election/discharge of directors is done with majority while cumulative voting mechanism is allowed. Board structure in large listed firms until 2015 was hybrid giving the option to have a management board with statutory auditors and a three-committee system, while staggered boards are not allowed. Thus, Japan attains a high score of the SRI of 10.00, which is the second highest (almost the same with South Korea) after the UK.

South Korea has a high score for SRI of 10.00 (almost the same with Japan). This is mainly due to the fact that it has very low thresholds of ownership for calling an EGM (1.5%) and bringing shareholder motions in an AGM with only 0.5% with a binding nature for the board. The appointment/removal of directors can be decided in both EGMs and AGMs. The issue of shares with multiple or limited voting rights is not allowed and the same restriction applies for electronic voting. The board has a unitary form, but its tenure is set to 3 years. Furthermore, the election of directors is done via a majority system and cumulative voting is allowed.

Switzerland has also a very low score (identical to the US) for SRI equal to 5.33. This is mainly due to the high thresholds of ownership (10%) for both calling an EGM and bringing shareholder motions in an AGM, the ability of firms to issue shares with multiple or limited or voting rights, to the plurality system of voting (although cumulative

[19] After 2009 the notification period for an AGM was lengthened from 14 days to 21 days and the above threshold of 10% was reduced to 5%. These were the only changes in legislation, which do not alter the aggregate classification of the UK; in fact they strengthened it (from 10.16 it goes to 11.66).

voting is allowed) and to the long tenure of management boards (it is allowed to have staggered boards for 6 years). Also, electronic voting is not allowed. However, shareholders have the right to appoint or remove directors at an AGM.

French legal origin group of countries (France and Netherlands)

France achieves a relatively high score for SRI of 8.16 (above the average). This is mainly due to a long notification period for an AGM (35 days), the ability of electronic voting and the thresholds of 5%[20] for shareholders having the right to call an EGM and bring proposals in an AGM including the appointment or the removal of directors who are elected by a majority system (though cumulative voting is not allowed). On the other hand, France loses points in SRI score, because firms are allowed to issue shares with multiple or limited or voting rights, there are restrictions on voting concentration and the law permits a long tenure of management boards (4-6 years).

Netherlands, has the lowest score among French family legal origin countries and the lowest of all sample countries before 2004 (together with Norway) attaining an SRI of 4.83. This is mainly caused by the high threshold of 10% that shareholders should have in order to call an EGM, to the inability of shareholders (again before 2004)[21] to appoint or remove directors and by the plurality system for the election/discharge of directors (similar to the US). Also, in the Netherlands, employees also have the right to participate indirectly in the management boards via their representatives[22], firms have the right to issue shares with multiple or limited voting rights, there are restrictions on voting concentration, such as the Dutch "poison pills" and the tenure of management board is quite long (4 years). On the other hand, the notification period for an AGM is much longer (42 days) than the SRD threshold of 21 days, the ability of electronic voting exists and so the ability of shareholders to call an EGM with a low threshold of 3% (before 2013 it was even lower to 1%).

Scandinavian legal origin group of countries (Norway and Sweden)

Norway has the lowest score of all sample countries attaining a value of SRI equal to 4.83 and in contrast with Netherlands, this score has not improved throughout our sample period 2000-2014. This low score is mainly justified by the long tenure of the board (2-5 years), by the employees' right to elect representatives to the management board [23], by the plurality voting system for the election of directors (while cumulative mechanism is allowed), by the inability of shareholders to appoint/remove directors in an EGM and by the right of firms to issue stock with multiple or limited voting rights. On the other hand, the negative effects of the above items are mitigated by a notification period for calling an AGM which is set to 21 days (consistent with the SRD), the threshold of 5% to call an EGM and the right of shareholders at any level to bring proposals at an AGM including the appointment/removal of directors.

Sweden has a much higher score of SRI (8.83) than Norway. This score is achieved, because it has a higher notification period of 28 days (than the limit set by the SRD), the ability of shareholders at any level of ownership to bring proposals to an AGM including the appointment/removal of directors in a unitary board which is elected on an annual basis (short tenure). These positive effects are reduced by a high threshold of ownership required for shareholders to call an EGM, the plurality voting system (while cumulative mechanism is allowed) for the election of directors, the

[20] This threshold decreases progressively even down to 1%, if the share capital of the firm exceeds 750,000 Euros.

[21] Up until 2004, supervisory board members nominated and appointed themselves to supervise and advise the management board through a so-called cooptation system in many of the Netherlands' largest companies, known as "structure regime" companies. Management boards, which have the primary role in developing and implementing company strategy, played such a strong role that they often informally determined the composition of the supervisory boards themselves. Since 2004, shareholders in "structure regime" companies have gained the right to elect and dismiss supervisory board members. Also, after 2004 the threshold of 10% for an EGM was lowered to 5%. However, when these changes in legislation after 2004 are considered Netherlands is still in the group of three countries with the worst performance of SHRs (lowest score of SRI).

[22] Works councils (which are statutorily required in Dutch companies with more than 50 employees in the Netherlands) have the right to present their opinion to the general shareholders meeting on the nomination, suspension or dismissal of a board member, but they do not have specific rights to recommend candidates for nomination to the board. This participation is not that strong as in other countries, e.g. Germany, but it still exists.

[23] Companies with more than 200 employees must elect a corporate assembly with 12 members. In Norway, both supervision and management of the operations of the company are the responsibility of the board of directors, while the companies have a possibility to elect an extra supervisory organ (Corporate Assembly). Shareholders have the right to elect the members of the nomination committee or the corporate assembly for larger companies.

right of firms to issue shares with multiple or limited voting rights, the restrictions on voting concentration and the right of employees to elect representatives to the management board especially in large companies.

Appendix 2. Probit model of likelihood of becoming the target of activist investors. This model is used to perform the Abadie and Imbens (2006) matching procedure in order to measure the Buy-and-Hold Abnormal Returns Performance of the targets of hedge fund activists.

Model 1 reports the results from the analysis with industry adjusted company financial characteristics

Variable Name	**Model 1 Industry adjusted metrics**	**Model 1 Marginal Probabilities**
Total return (3-year)	**-0.154*** **	-0.98%
	(-2.872)	
Net debt to market cap	**-0.0409** **	-0.26%
	(-2.190)	
Return on capital employed	**-0.290** **	-1.84%
	(-2.440)	
Undervaluation	**-0.363*** **	-2.31%
	(-4.610)	
Forward P/E ratio	**-0.00178***	-0.01%
	(-1.811)	
Earnings surprise	**-0.110*** **	-0.70%
	(-2.605)	
Sales growth (3-year)	**-0.158** **	-1.01%
	(-2.542)	
Capex to sales	-0.134	-0.85%
	(-1.513)	
Dividend yield	**-0.0991*** **	-0.63%
	(-8.047)	
Price to free cash flow	**0.000293***	0.00%
	(1.793)	
Market to book	-0.0102	-0.06%
	(-1.245)	
Cash to total assets	-0.0612	-0.39%
	(-0.507)	
Market cap.	**-0.0836*** **	-0.53%
	(-6.948)	
R&D to sales	-0.000665	-0.004%
	(-0.138)	
Closely Held Shares	**-1.016*** **	-6.46%
	(-9.526)	
Share turnover	**0.0435*** **	0.28%
	(5.811)	
Constant	**-1.206*** **	-
	(-12.96)	
Country, Industry & Year Fixed Effects	Yes	
Activist Engagements	1,750	
Pseudo R^2	0.092	

Notes: The sample covers the period 2000 - 2014. *** indicates significance at the 1% level, ** indicates significance at the 5% level, and * indicates significance at the 10% level. We include year, industry and country fixed effects in the regression model.