

Crisis Poison Pills*

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Abstract

We show that a large number of firms adopt poison pills during periods of market turmoil. Specifically, during the coronavirus pandemic, many firms adopted poison pills following declines in valuations, and stock prices increased upon the announcement of firms' poison pill adoption. Stock price increases are driven by (1) firms in which activist shareholders acquire ownership stakes and (2) firms in industries that had high exposure to the crisis. Likewise, we find a positive reaction to pills with provisions directed at stalling activists' interventions. Our results suggest that crisis pills that target potentially disruptive ownership changes may benefit current shareholders. (*JEL* G30, G32, G34, G38, E32)

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Does corporate governance have a role to play in limiting or exacerbating the impact of an economic crisis? We explore this question in the context of one of the most heavily debated governance provisions, the poison pill. Though they have fallen out of favor in recent years, pills made a comeback in the wake of the coronavirus (COVID-19) crisis. As the virus spread around the globe and stock prices plummeted, at least 73 firms, including household names, such as Groupon and Office Depot, announced the adoption of a poison pill between March and June (see Table A1 in the appendix)—the highest monthly rate of pill adoptions in over a decade (see Figure 1). The spike in pill activity in times of crisis does not appear to be a new phenomenon. In the past 20 years, pill adoptions have increased when the S&P 500 index declines sharply and in periods of high volatility.¹

Why would firms adopt poison pills in a crisis, such as COVID-19? Firms in many industries, such as airlines and brick-and-mortar retailers, began suffering from suppressed revenues, cash flow problems, and potential defaults on debt seemingly overnight. Market turmoil and falling prices can increase the likelihood that firms will be subject to unsolicited takeover bids (Araujo, Massoud, and Papdopoulos 2020) or interventions by activist investors (Gottfried and Donahue 2020). Moreover, intense market volatility likely made it more difficult for firms to monitor changing ownership stakes, particularly the possibility of activists' accumulations at relatively low prices.

While pills have historically served mostly as an antitakeover device, the pills in the COVID-19 pandemic appear to be mainly directed at activists' actual or potential attempts to acquire meaningful stakes in corporations.² Activists' engagement with the incumbent management to change firms' strategies is generally associated with an increase in the value of targeted firms (Brav et al. 2008; Bebchuk, Brav, and Jiang 2015; Becht et al. 2009). Often this engagement involves a proxy fight to change the composition of the board by adding

¹Figure 1 illustrates a strong positive correlation ($\rho=.61$) between the VIX volatility measure and pill adoptions, in large part because of volatile trading in recessions.

²With large acquisitions mostly disappearing in the midst of the crisis (Wu 2020; Beltran 2020), the major challenge for corporate boards has been the accumulation of substantial equity stakes by activist investors, such as hedge funds, who can purchase stocks at low prices (Gottfried and Donahue 2020).

less management-friendly directors, and it could also result in the ousting of the CEO (Brav et al. 2008; Jenter and Lewellen 2020; Helwege, Intintoli, and Zhang 2012). Thus, managers may seek to curb the influence of activist investors by adopting a poison pill. Pills with a trigger of 10% or 15% ownership make activists' intervention less lucrative because they limit the value activists can extract from stock price appreciation (Kahan and Rock 2019). Pills are particularly effective in this regard because they can be quickly adopted without shareholder approval (Coates 2000). Thus, the concern is that managers might adopt pills for entrenchment purposes at the expense of shareholders.

However, while activists' interventions can benefit shareholders, under crisis, these potential ownership and strategy changes may disrupt managers' ability to focus on crisis management and long-term performance (Kesten 2010; Rock and Sylvester 2020). In times of economic crises, such as COVID-19, stock prices may be depressed due to bad market news and so do not necessarily reflect underlying firm fundamentals or the true continuation value of the firm. Under these conditions, corporations may become attractive targets for stock accumulations at deflated prices by activist shareholders with short-term investment horizons. Consistent with this claim, there is anecdotal evidence that activist investors who bought stakes in corporations in the midst of the market downturn in March 2020 quickly sold off large portions of their newly acquired stakes.³ Further, the possibility of an activist intervention may disrupt managers' ability to address the crisis, including the total shutdown of the workplace and the possibility of major layoffs. Under such circumstances, shareholders may benefit from poison pills designed to prevent activists from acquiring a meaningful stake (Rock and Sylvester 2020). Finally, activists' propensity to target highly leveraged firms and further increase target leverage (Klein and Zur 2011), particularly at a time when servicing debt is difficult, could force shareholders to bear excessive amounts of risk.

The COVID-19 pandemic represents a unique opportunity to examine how poison pills

³Among these activist investors are Scion Asset Management (which sold off 3.1% of Tailored Brands), KKR (which sold off 7% of Dave & Buster's), Legion Partners (which sold off 2.75% of The Chef's Warehouse), and even Blackrock (which sold off 13.6% of Evofem Biociences).

are used and their potential impact under crisis. First, as [Fahlenbrach, Rageth, and Stulz \(2020\)](#) and [Ramelli and Wagner \(2020\)](#) point out, COVID-19 is as close to a truly exogenous shock a researcher could hope to study. Moreover, unlike other crises that have affected a large cross-section of firms in a similar manner, the pandemic has had widely differential effects on various types of companies (see, e.g., [Figure 2](#)). The firms that suffered the largest negative shocks to their revenues likely became particularly vulnerable to ownership changes. Finally, until the emergence of COVID-19, the number of active poison pills in U.S. corporations was extremely low. Although poison pills were historically popular, particularly in the merger waves of the late 1980s and 1990s, most public firms have removed them in the last two decades, in large part because of the influence of proxy advisory firms ([Catan 2019](#)) and the recognition that essentially all firms have a “pill on the shelf” ([Coates 2000](#)).⁴ Accordingly, the recent pill adoptions are more likely to reflect targeted responses to specific threats rather than adoption of boilerplate governance terms.

We focus the analysis of crisis pills on the 53 pills that survive event study filters and were adopted between March 1 and May 15, as pill adoptions slowed considerably as the stock market recovered (see [Figure 3](#)). The pills in our sample appear to be directed at activist investors with relatively short-term horizons. For example, they are of extremely limited duration (1.46 years on average), at least relative to historical antitakeover or “clear-day” poison pills that typically had durations of 10 or more years. Further, 73% of the pills adopted during COVID-19 have a duration under 1 year. Based on this characteristic alone, crisis pills appear to be designed as temporary measures rather than entrenchment devices. These pills also have a low average trigger of about 12% as compared to the historically conventional triggers of about 20%, and many (though still a minority) have provisions that specifically target activists acting in concert.

Which firms adopted “crisis pills” during COVID-19? We find that firms were more likely to adopt poison pills if an investor meaningfully increased its stake in the company. We define

⁴As of the end of 2019, only 25 S&P 500 public firms had an active poison pill ([Berg, Liekefett, and Zaba 2020](#)).

a “meaningful stake increase” as an investor either crossing the 5% ownership threshold or an investor already having 5% ownership and acquiring at least 1% additional stocks. Moreover, using the Moody’s report that classifies firms by different levels of exposure to the COVID-19 crisis ([Moody’s Investor Services 2020](#)), we also find that firms in industries with a high exposure to the crisis were more likely to adopt a poison pill. These findings support the argument that the pills were adopted to curb stock accumulations in firms that experienced a negative shock due to the crisis.

Next, we evaluate the stock price reactions to the crisis pills. We find that announcements of these pills are met with immediate positive stock price reactions in various event windows in the 10 days following the pills’ adoptions. In contrast, a matched sample of firms (based on two-digit SIC industry, size and leverage) that had not adopted a pill did not experience a similar price reaction in the same period. These results suggest that, at least initially, shareholders viewed the adoption of the pill positively on average.

We further split the adopting firms in our sample into different groups. First, we divide them into firms where an investor meaningfully increased its stake in the company, and those that did not experience such an event. Although both groups of firms seem similar based on observable characteristics, such as financials, we find that the firms with a meaningful stake increase prior to the adoption of a pill had a large positive stock price effect following the adoption, whereas the other group did not experience any statistically significant abnormal returns following the adoption of a pill. To address the concern that reactions to pill adoptions actually reflect a positive reaction to activist intervention, we explore the cumulative abnormal returns (CARs) around the disclosure of investors stakes, and find that the market did not view the purchases of such stakes positively.

Next, we divide firms by the level of their exposure to the COVID-19 crisis based on the Moody’s report ([Moody’s Investor Services 2020](#)). While all adopting firms experienced a dramatic decline in stock prices, firms in the high exposure group experienced an even steeper decline. When examining the CARs of both groups, we show that the firms that

had high exposure to the crisis experienced a large positive stock price effect following pill adoptions, whereas the other group experienced a much smaller effect or no effect at all (depending on the event window).

Finally, we create two-by-two groupings based on both whether or not a firm experienced a meaningful stake increase, and exposure to the crisis. We find a large positive abnormal return associated with pill adoption for the nine firms that both experienced a meaningful stake increase prior to adoptions and had high exposure to the crisis. The effect is 12.7% on the day of adoption and 24% in the 10-day window after adoption. The other three groups did not experience a major stock price effect in event windows excluding preannouncement days.

The results suggest that a poison pill, traditionally a device used to fend off hostile takeovers, may be an effective device to engage with a potential activist looking to exploit crises to acquire a meaningful ownership stake. To the extent that such activists' accumulations of stocks are disruptive to firms' strategies under crisis, pill adoptions may be conducive to shareholder value. In fact, even proxy advisors, such as the ISS and Glass Lewis, have recently indicated that they understand the potential justifications for pill adoptions in the wake of the pandemic and will not automatically recommend withholding votes from directors who adopt them as per their standard policies ([Bertinetti 2020](#)).

We must emphasize that any inference from the results should be treated with caution given that the sample of firms is small. Thus, we cannot entirely overrule the possibility that the results are partly affected by unobserved idiosyncratic factors or some myopia in the market response. However, we conduct extensive robustness tests using multiple specifications, different criteria for grouping firms based on the level of activism threat, and different measures of exposure to the crisis. The results are also robust to excluding financial firms and NOL pills (i.e., pills adopted to preserve net operating loss), different approaches to trimming or winsorizing extreme observations, and different factor models to estimate abnormal returns. We discuss these robustness checks in [Section 4.5](#).

Our paper makes three contributions to the literature. First, our results suggest that governance has an important role to play in mitigating the impact of an economic crisis. Our findings are consistent with [Kesten \(2010\)](#), who finds that firms with more governance provisions that allocate power to managers (such as the poison pill) performed better in the aftermath of the 2007–2009 financial crisis. Thus, the well-known results in [Gompers, Ishii, and Metrick \(2003\)](#) and [Bebchuk, Cohen, and Ferrell \(2009\)](#) showing a negative cross-sectional correlation between such governance provisions and performance do not appear to hold under crisis.

Second, our paper contributes to an already substantial literature on the uses and value effects of the poison pill (discussed in at length in Section 1). However, to the best of our knowledge, our paper is the first to study even short-term impacts of “antiactivist” poison pills discussed by [Kahan and Rock \(2019\)](#). More research however is needed to evaluate antiactivist pills beyond the crisis context.

Third, our paper contributes to the literature that examines proxy advisor recommendations. For example, [Iliev and Lowry \(2014\)](#) find that the mutual funds that vote actively rather than passively following the advice of ISS earn higher alphas. [Daines, Gow, and Larcker \(2010\)](#) suggest that commercial ratings do not provide useful information to shareholders. Our results indicate that the proxy advisor firms should weigh the prevailing macroeconomy when providing recommendations ([Listokin 2017](#); [Strauss 2019](#)).

More broadly, our study is consistent with a growing body of literature that shows that one size doesn’t fit all firms in corporate governance and that the efficiency of different governance regimes depends on the relevant circumstances of different firms (see, e.g., [Giroud and Mueller 2011](#); [Eldar 2018](#), among many others).

1 Literature Review and Institutional Background

Poison pills have been debated since they first emerged in the 1980s in response to a well-known wave of hostile takeovers. The main purpose of the pill was to enable the board of directors to veto a tender offer. Typically, a pill takes the form of a dividend or stock purchase rights to buy the shares of the company at a deep discount, which are triggered if someone acquires a prespecified percentage of the shares of the firm. If a board has adopted a pill, the only way for a bidder to acquire control of the company is through a proxy fight to replace the board. The justification for pills was that shareholders might be tempted to tender their shares to a bidder for a lower price than the true value of the firm. However, because takeovers usually involve a premium over the market value of the target company, the poison pill gave rise to the concern that boards may adopt it in order to entrench themselves.

The empirical literature on poison pills to date, though inconclusive, has mostly reported a negative stock price reaction to pill adoptions. [Malatesta and Walkling \(1988\)](#) find a negative stock price effect associated with pill adoptions in a sample from 1982 to 1986. [Ryngaert \(1988\)](#) and [Comment and Schwert \(1995\)](#) do not find statistically significant abnormal returns associated with pill adoptions in samples from 1982 to 1986 and 1984 to 1991, respectively. But [Ryngaert \(1988\)](#) finds a small negative abnormal return (-0.34%) for adopters that did not experience a confounding event, and both [Ryngaert \(1988\)](#) and [Comment and Schwert \(1995\)](#) find a larger negative effect (-1.51% and -2.1%, respectively) for subsamples of firms that were rumored to be targets of takeovers.

Other influential studies examine the association between poison pills and Tobin's q or operating performance. Famously, [Gompers, Ishii, and Metrick \(2003\)](#) and [Bebchuk, Cohen, and Ferrell \(2009\)](#) find a negative association between governance indices that include poison pill adoptions and Tobin's q. [Cremers and Ferrell \(2014\)](#) and [Cremers, Masconale, and Sepe \(2016\)](#), examining a larger sample of pills from 1978 to 2008, show that poison pills are associated with lower Tobin's q, not only in the cross-section of firms but also when

controlling for firm fixed effects. However, in examining “clear-day pills,” that is, pills not adopted in response to deals or 13D filings, [Catan \(2019\)](#) finds that pills are adopted *following* declines in Tobin’s q , and that Tobin’s q is flat after the adoption.⁵ This finding lends support to [Coates’s \(2000\)](#) insight that pills should have no material effect on shareholder value because regardless of whether a board has actually adopted a pill, all firms have a “shelf-pill” in the sense that they can adopt a pill on short notice if there is a bid to acquire the company’s stock. Finally, [Danielson and Karpoff \(2006\)](#) find modest improvements in operating performance during the 5-year period after pill adoption.⁶

The otherwise wide-ranging empirical literature on poison pills does not account for recent market trends. As illustrated in recent Delaware court cases, corporations have increasingly used poison pills to curb activists’ accumulation of shares in corporations rather than stop hostile takeovers ([Kahan and Rock 2019](#)).⁷ The Delaware Chancery Court validated these pills on the basis that the activists posed a threat of forming a control block without paying a control premium.

Moreover, another form of poison pill designed to protect a company’s net operating loss (NOL) has developed over the years. NOLs may be used to offset future profits for tax purposes. Because of tax regulations, these pills have a low trigger of 5%, and thus they may indirectly deter the acquisition of stakes by activist shareholders who typically seek to buy sizable stakes that, though short of control, would make the investment in activism sufficiently profitable ([Edelman and Thomas 2012](#)). Despite the low triggers, these pills were held to be valid in *Versata Enterprises, Inc. v. Selectica, Inc.*, 5 A.3d 586 (Del. 2010).

The use of poison pills against activist investors is related to the broader literature on

⁵Although [Catan](#) focuses on Tobin’s q , he also shows similar findings when examining the CARs around pill adoptions.

⁶Evidence on the effect of statutes that protect poison pills from judicial review ([Cremers et al. 2020a](#); [Karpoff and Malatesta 1989](#); [Karpoff and Wittry 2018](#); [Cain, McKeon, and Solomon 2017](#)) or the impact of such statutes on incorporation decisions ([Bebchuk and Cohen 2003](#); [Eldar and Magnolfi 2020](#)) is mixed.

⁷In *Yucaipa American Alliance Fund II, L.P. v. Riggio*, 1 A.3d 310 (Del. Ch. 2010), Barnes & Noble adopted a poison pill with a trigger of 20% in response the acquisition of 17.8% of the company’s stock by an activist, and in *Third Point LLC v. Ruprecht*, no. 9469-VCP, 2014 WL 1922029 (Del. Ch. May 2, 2014), Sotheby’s adopted a poison pill with a 10% trigger following 13D filings by two hedge funds, Marcato and Third Point.

the role of activist shareholders, primarily hedge funds. Typically, hedge funds purchase a stake in a target company and then make proposals that in their judgment would increase the value of the firm. They may also wage a proxy fight to get their representatives elected to the board. A burgeoning literature examines the performance of targeted firms.

Several studies show that hedge fund targets perform better following intervention (Brav et al. 2008; Bebchuk, Brav, and Jiang 2015; Becht et al. 2009), including stronger production and innovation efficiency (Brav, Jiang, and Kim 2015; Brav et al. 2018). However, the benefits of activist intervention have been questioned in several studies (Coffee and Palia 2015). Some argue that the benefits emanate mostly from activist campaigns that increase the probability of acquisitions rather than changes to firm strategy (Greenwood and Schor 2009; Corum and Levit 2019; Boyson, Gantchev, and Shivdasani 2017). Others claim that higher performance is mainly due to stock picking, rather than value creation (Cremers et al. 2020b), or information leakages following the appointment of hedge fund employees to the board of directors (Coffee et al. 2018). Moreover, evidence suggests that in crisis, firms with investors who have short-term investment horizons, including hedge funds, are likely to experience bigger price drops (Cella, Ellul, and Giannetti 2013).

We do not take a stance on the broader debate on the role of activist investors. Rather, we exploit the fact that market valuations declined swiftly and abruptly during the COVID-19 pandemic in March 2020 (Fahlenbrach, Rageth, and Stulz 2020; Ramelli and Wagner 2020). These declines in valuation permit activist investors to purchase stock at depressed prices and make companies more vulnerable to activist intervention. As shown by Brav et al. (2008), lower valuation is one key predictor of hedge fund activism. Likewise, declining valuations also make it more likely that firms will adopt poison pills (Catan 2019), which as discussed above, have been increasingly used to limit the influence of activist investors. Accordingly, the market downturn of COVID-19 provides a unique opportunity to examine the patterns in which activists and managers engage specifically in crisis situations.

Finally, our study is more broadly related to recent studies that discuss the impact of

COVID-19 on firm valuations and policy ([Acharya and Steffen 2020](#); [Carletti et al. 2020](#); [Fahlenbrach, Rageth, and Stulz 2020](#); [Li, Strahan, and Zhang 2020](#); [Albuquerque et al. 2020](#); [Ramelli and Wagner 2020](#)). Consistent with our findings, these studies show that crisis may have differential effects on different firms and that firms need to customize their responses to the crisis based on their unique circumstances. Studies of economic crisis may further illuminate the extent to which firms may be subject to conditions where governance changes could mitigate the impact of crises on equity valuations.

2 Poison Pills in the Wake of the COVID-19 Crisis

Prior to COVID-19, very few firms had active poison pills. ISS and other proxy advisory firms drove the process whereby corporations dismantled poison pills. For example, in 2004, ISS adopted voting guidelines recommending that institutional investors withhold their votes from the directors of firms that adopted or renewed clear-day pills ([Catan 2019](#)), and evidence suggests that directors involved in pill adoptions experienced a decrease in the likelihood of board appointments ([Johnson, Karpoff, and Wittry 2019](#)). Nowadays, poison pills are largely used only to address specific circumstances, such as a takeover bid or a higher probability of activists acquiring a significant stake.

The COVID-19 crisis took the world mostly by surprise. Stock prices declined precipitously when the magnitude of the disaster came to light in late February and early March of 2020. Between February 19th and March 23rd, stock prices fell by 34% (see [Figure 3](#)). The sharp decline in stock prices gave rise to a concern that activist shareholders or private equity firms would exploit the situation by acquiring a significant stake in the company, at an unusually low price, with the objective of pursuing goals that might not be in the long-term best interests of the company.

In response to this risk, a relatively large number of firms adopted poison pills to address the risk of creeping control by activist investors, often after an activist investor actually

acquired a specific stake in the company. For example, Occidental Petroleum and Delek U.S. Holdings adopted pills after the famous hedge fund activist, Carl Icahn, purchased substantial stakes as demand for oil and other fuels dropped in March 2020. Similarly, Tailored Brands adopted a poison pill after its stock price declined by over 70% and Michael Burry, the head of hedge fund Scion Management, increased his total stake in the company. To a lesser extent, private equity firms, such as KKR, that have accumulated large funds in recent years (Son, Sherman, and Hirsch 2020), may seek to exploit the crisis to make “toehold” acquisitions in anticipation of larger acquisitions in the future.

We provide additional anecdotal evidence on pill adoption following stock acquisitions in Appendix B. In most cases, a 13D or 13G form was filed just before the adoption of a poison pill. However, many firms adopted poison pills even though no filing was made prior to the adoption of a pill. In theory, if accumulations of shares are not timely disclosed the board may fail to adopt a pill before an activist investor acquires a meaningful stake. But, for example, in the case of Chef’s Warehouse, a specialty food supplier for restaurants, the firm adopted a pill on March 22, yet a hedge fund, Legion Partners Asset Management LLC, disclosed that it acquired more than 5% of the company’s stock only on March 30. Moreover, in many of these firms, there was an acquisition of stocks by hedge fund investors based on 13F filings in the quarter ending March 31, 2020, even though these acquisitions did not legally require a 13D.⁸ As an example, several activist investors acquired shares in Hilton Vacations and Spirit Airlines prior to the pill adoptions.⁹ This suggests that companies may have known about these stock accumulations despite the lack of timely disclosure and adopted poison pills to curb them.

⁸Entities with investment discretion over \$100 million in certain publicly traded equity securities must file a 13F form detailing their holdings within 45 days of the end of each quarter. These entities may be exempt from 13D filings if they are qualified institutional investors (which include registered investment advisors and investment companies), in which case they must file the shorter form 13G if they cross the 5% threshold. If the entity’s holdings do not exceed 10%, the 13G need only be filed within 45 days of the end of the calendar year in which the acquisition was made. Accordingly, the disclosure deadlines for form 13F, to the extent they apply, may be much sooner than for form 13G.

⁹These firms are identified by FactSet as firms with a high probability of being a target of activism, and we have recorded small increases in hedge fund acquisitions of stocks in the first quarter of 2020 based on 13F filings.

Based on discussions with market participants, it appears that companies monitor these stock acquisitions through various specialized service-providers that track trading in corporate stocks and broker-dealer transactions. Moreover, consistent with [Levit \(2019\)](#), activists may themselves privately disclose their interest to the company when they make demands on managers to change the firm’s strategy. Accordingly, companies may know about stock purchases by activist investors that are exempt from disclosure requirements or do not cross the 5% threshold, and may be able to adopt pills in response.

The unique circumstances surrounding the economic shock from COVID-19 have made even skeptics of poison pills more willing to countenance and even condone them. [Rock and Sylvester \(2020\)](#), for example, have argued that corporate managers need to have flexibility in making difficult choices about how to protect workers, investors and their businesses from the fallout of the crisis, rather than engaging in battles with activists. Consistent with this view, some hedge funds have scaled back their efforts to pressure corporations to accept their strategies and have been more willing to compromise ([Driebusch 2020](#)). In fact, even proxy advisory firms have shown willingness to be flexible with their guidelines and provide support for poison pills if they are not too restrictive ([Shim, Langston, and Allen 2020](#)). For example, the ([ISS 2020](#), p. 6) recently stated that a “severe stock price decline as a result of the COVID-19 pandemic is likely to be considered valid justification in most cases for adopting a pill of less than one year in duration.”

On the other hand, the ([ISS 2020](#), p. 6) also stated that “the triggers for such plans will continue to be closely assessed within the context of the rationale provided and the length of the plan adopted. . . . Excluding NOL pills, 5% triggers are extremely rare since they are highly restrictive and could negatively impact the market for the company’s shares as the market recovers.” We document 18 NOL pills in our sample, which as discussed above have a 5% trigger.¹⁰ However, we also document a few pills with 5% triggers that are not related

¹⁰This is not surprising because firms are more likely to experience losses in crisis situations ([McRae and Goodman 2020](#)). Proxy advisory firms, such as the ISS, have generally viewed these pills as warranted and do not recommend withholding votes against directors who implement them.

to NOL.¹¹ In particular, the Williams Companies, another energy firm, had adopted such a pill after a major drop in its stock price due to decline in energy prices (Maurer 2020), and has drawn a great deal of criticism from the ISS. The 5% trigger may seem disproportionate to prevent creeping control by an activist investor. That said, the stock price of the Williams Companies did drop dramatically, and 5% may be necessary to keep the board from becoming preoccupied with an activist campaign rather than dealing with market conditions. In fact, the other influential proxy advisory firm, Glass Lewis, has concluded that an action against directors is not warranted because the pill has a 1-year duration (Bertinetti 2020).

3 Data Construction

To examine the renewed use of poison pills, we first document their adoption. We start by collecting data on the presence of pills during the COVID-19 endemic from the Thomson Reuters SDC Platinum and FactSet SharkRepellent data sets. We also do a news search through Factiva to identify those adoptions not yet included in SDC or SharkRepellent. We further search manually for the 8-K filings on the SEC Edgar website. We hand collect the press release dates, the dates of the board resolutions adopting the pill, and the following characteristics of each pill: (1) the percentage ownership that triggers the pill, (2) whether shareholder approval is required to adopt the pill, (3) whether it is a “chewable” pill, meaning pills that are not triggered by qualified offers, typically all-cash fully financed offers for a premium and open for a set time, (4) whether it includes an “acting in concert” provision, which means that the stakes of shareholders coordinating with each other or even influenced by each other may be aggregated in evaluating if the pill was triggered, and (5) whether the pill was adopted for tax reasons to preserve the firm’s NOL.

From the beginning of March to the end of June, we document at least 73 adoptions. However, as the market has continued to recover, the number of poison pills adopted by firms

¹¹With the exception of the Williams Companies, the other three firms that adopted such pills are real estate investment trusts (REITs), where ownership is already typically limited to about 10% by the terms of the trust. See Latham & Watkins (2020).

has tapered drastically. In fact, between May 15 and June 30, only 14 pills were adopted, relative to 59 plans approved in the 75 days prior. Based on the market recovery, stabilizing volatility, and the reduced interest of boards in poison pills, it is arguable that the concern regarding acquisition of economic stakes in companies became less pressing toward the end of May and into June. Consistent with this, Figure 3 shows that all 13D filings associated with COVID-19 pill adopters are concentrated in March and early April. Accordingly, we focus our attention on the pills that were adopted between March 1 and May 15, the period where companies were most likely to be susceptible to potentially disruptive stock accumulations. Our results are not sensitive to this filter. In the Internet Appendix Figures IA1-IA4 and Tables IA1-IA4, we show that our main results hold when using all 73 adoptions from March through June.

To analyze characteristics of adopting firms, we use 2019 financial accounting data from Compustat Annual Database; data on the presence of staggered boards from the Institutional Shareholder Services (ISS) Governance Database, FactSet, and Capital IQ; institutional ownership data from 13F filings through Thomson Reuters; mutual fund voting data from ISS Voting Analytics Database; and institutional classification data from Brian Bushee's website.¹² We report the mean summary statistics for the following variables: Tobin's q , Total Assets, Market Leverage, Cash over book assets, CapEx over book assets, R&D expense over book assets, Total Sales, Return on Assets (ROA), Return on Equity (ROE), Earnings per Share (EPS), Dividend Yield, Net Operating Loss and NOL relative to market value, and the number of years a firm has stock returns in the CRSP database (to proxy for age). Further, we report the percentage of pill-adopting firms with staggered boards; the percentage of shares owned by transient (TRA), dedicated (DED), and quasi-indexer (QIX) institutions as defined by Bushee's (2001) permanent classifications; and following Kedia, Starks, and Wang (Forthcoming), the percentage of firms with a dissatisfied shareholder defined as a mutual fund that has voted against management in the prior 3 years. All

¹²See <https://accounting-faculty.wharton.upenn.edu/bushee/>.

variables are defined in Table A2 in Appendix A. Each ratio variable is winsorized at the 1% and 99% levels and all are adjusted by the SIC two-digit industry median.

We obtain data on security returns from the CRSP Daily Stock File and market return, risk-free rate and risk factor data from Kenneth French’s website through June 2020. First, following Amihud and Stoyanov (2017), we discard four penny stocks (price under \$1 on December 31, 2019): Global Eagle Entertainment, Heat Biologics, Chesapeake Energy, and Tengasco. We also exclude two over-the-counter (OTC) stocks: Healthcare Trust and Whitestone REIT. This leaves a final sample of 53 firms for the main event study results. We use the market model augmented with a two-digit SIC industry daily mean return factor to estimate abnormal returns.¹³ We use the 2019 calendar year as the estimation window to avoid COVID-related prices or volatility and we calculate abnormal returns around the firms’ announcements of the rights plans. The Internet Appendix documents similar results when using the Fama-French three-factor models (Figures IA5–IA8; Tables IA5–IA8) and five-factor models (Figures IA9–IA12; Tables IA9–IA12). In addition to the abnormal returns, we compute the gross returns for each firm from February 20th, the peak of the S&P 500, through March 23rd, the lowest point of the market, and the 10-day gross returns after the pill adoption.

To make inferences about the interaction between shareholder activism and potential opportunism during the COVID-19 crisis, we employ two main measures to partition the data into subsamples. First, to identify activism, we document each firm in which an investor makes a meaningful stake increase in the period from February 20 through May 15, but prior to the adoption of the poison pill.¹⁴ We define a meaningful stake increase (MSI) as any

¹³That is, we include the average daily return for a two-digit SIC industry (not including the firm of interest) as a second factor. We do this to mitigate concerns that industry recoveries around pill adoptions may confound our inference.

¹⁴We document three firms that have a meaningful stake increase *after* the adoption of the pill. Hexcel adopted a poison pill on April 6, and Eaton Vance filed a 13G on May 11 disclosing a 3% stake increase from that very day. Aikido Pharma adopted a pill on March 23, and three shareholders filed 13Gs in April relating to stake increases on April 14. Finally, Viad adopted a pill on March 30, and we identify a meaningful stake increase through 13F filings on March 31. While it remains possible that the pills were responding to behind-the-scenes developments, we classify each of these firms as having no meaningful stake increase.

investor that either (a) crosses the 5% of common shares outstanding threshold or (b) has an existing 5% block and subsequently adds to that block during the market downturn. This measure suggests that roughly 40% (22%) of the 53 COVID-19 pill adopters experienced a meaningful accumulation of their outstanding shares in the days leading up to the adoption of the pill.

We identify meaningful stake increases using one or more of three different filing requirements by different types of investors. That is, we document stake increases using 13D, 13G, and 13F filings. Ideally, we would be able to identify the exact date of the stake in each case using only 13Ds. However, as discussed in Section 2, certain types of investors are exempt from filing 13Ds and thus file 13Gs instead. Investors have only 10 days to file a 13D while they have a much longer period to file form 13G (45 days after the end of the calendar year in which the acquisition was made if the total holding is less than 10%). Furthermore, 13F-filers often do not file a 13G at all and the presence of any accumulated stake appears only in 13F filings. Because 13F filings do not require investors to report the date of the stock acquisitions, it is possible that some of the MSIs we document through 13Fs occurred prior to the pandemic. However, as we show in the Internet Appendix, our results are robust to alternative measures of shareholder activism including using only firms that filed 13D or 13G after February 20.

The second partition we make sorts firms into bins based on their exposure to COVID-19. In our main analysis, we rely on the [Moody's Investor Services \(2020\)](#) sector report on March 17, 2020, for two reasons. First, using the Moody's report allows us to use a largely ex ante expectation of coronavirus exposure rather than an ex post measure, such as stock returns or revenue losses. Second, in our view, the Moody's report appears to be the most systematic examination of virus exposure as Moody's had already assessed over 900 companies as of mid-March. We first utilize three-digit SIC codes and SDC Thomson Reuter's primary industry description for each firm. We then review the long and short business descriptions on SDC Thomson Reuter's. We further supplement this with information from other sources, such as

the company’s “About Us” section on its website, Capital IQ and Bloomberg. We attempt to condense this information down into a two-word business description for each firm. We use this business description and Moody’s exposure classification to label each pill-adopting firm as having low, moderate, or high exposure to COVID-19. In most cases, the mapping from SIC codes to the Moody’s classification is fairly obvious (e.g., Spirit Airlines is clearly in the airline industry). However, in other instances, it is not so straightforward, and this requires us to make judgment calls. For example, Thomson Reuters describes Global Eagle Entertainment as a telecommunications firm (SIC code 489). Based on the Moody’s exposure classifications, this would put Global Eagle Entertainment squarely into the low exposure bin. However, missing from this simple industry description is the fact that Global Eagle provides “inflight entertainment, media content, technology and connectivity solutions to the airline industry.” Because of the enormous exposure of commercial airlines to the virus, we classify Global Eagle as having high COVID-19 exposure.

Using this classification methodology, we identify 19 of the 53 adopting firms as having high exposure to COVID-19 and the remaining 34 firms as having low or moderate exposure. While the majority of the adopting firms in our sample are classified as having low or moderate exposure, a far greater percentage of highly exposed firms approved rights plans. In the probit analysis in Table 2, we define a “High COVID-19 Exposure” variable only based on two-digit SIC codes for the entire Compustat universe. Under this definition, 446 of 3,747 firms, or 11.9% of Compustat, are in the high exposure bin. This is consistent with 4.3% of highly exposed firms adopting pills, and only 1.0% of low-to-moderately exposed firms adopting pills.

Ultimately, both the meaningful stake increase and COVID-19 exposure measures are imperfect. For example, using the 13F data adds measurement error regarding activists’ accumulation dates. Further, [Moody’s Investor Services \(2020\)](#) classifies oil and gas firms as having only moderate exposure to the COVID-19 crisis, despite the fact the crude oil prices hit historical lows. We address these concerns in two ways. First, we provide complete

transparency on the classification of our two measures. Table A1 in the appendix lists adopting firms, poison pill adoption dates and standard industry classification codes, as well as whether or not they experienced a meaningful stake increase, our two-word business descriptions and the classification of the firms’ coronavirus exposure with guidance of the Moody’s Investor Services report. Second, we run an exhaustive series of robustness tests probing the sensitivity of our classifications, which we report in Section 4.5.

4 Empirical Analysis

4.1 Which firms adopted poison pills?

To better understand the rights plans and the types of firms adopting poison pills during the COVID-19 pandemic, we show the descriptive statistics in Table 1. In panel A, we first discuss pill characteristics. The average duration of pills is 1.48 years. Thus, the durations of COVID-19 pills are much shorter than historical pills, which often had a term of 10 years. This partly reflects the trend of limiting pills’ duration, but also the fact that these pills were designed specifically to address the seemingly temporary crisis.¹⁵

After excluding NOL pills, the average trigger threshold for COVID-19 pills is 12.10%. This is just lower than historical pills, likely because many of these pills are designed to limit stock accumulations by activist investors who seek to affect firms’ strategy with a small stake in the company. Nearly one-fourth of the pills (22.6%), a percentage higher than in the recent past (Shirodkar, Burke, and Samek 2020), have “acting-in-concert” provisions targeting so-called “wolfpacks” of activists. Further, 26.4% of pills are NOL pills, 20.8% require shareholder approval, typically at the next annual meeting; 18.6% are chewable pills; and 43.4% are discriminatory, meaning the plans have separate, higher triggers for passive institutional investors (typically 20% as compared to 10%–15% triggers for other investors).

¹⁵While historical pills, designed to prevent hostile takeovers, had durations of 10 years, pills in the period beginning with the financial crisis through those adopted pre-COVID had an average duration of 3 years. This suggests that a previous crisis (the financial crisis) may have shifted the landscape of poison pills.

When we split pills by MSI, we do not find any statistically significant differences, except that, counterintuitively, the trigger is actually lower for pills that do not follow an MSI. However, this is mostly due to a single firm Evofem Biosciences with a 32% trigger. The triggers become indistinguishable upon removing this outlier. When we split the pills by COVID-19 exposure, the high exposure group has shorter duration pills, fewer NOLs, fewer chewable pills, and more discriminatory pills.

In panel B, we show industry-adjusted financials. We observe that average industry-adjusted Tobin's q is negative, so overall adopting firms performed slightly worse than industry averages in 2019. However, firms in the MSI group had valuations above those of their peers in 2019, and marginally significantly higher than those of the firms without a COVID-19 stake increase. Pill adopters were also more leveraged than industry peers, although their ROA and ROE were similar. Based on total assets, the adopting firms are a bit larger than industry peers. This confirms the intuition that some large firms became susceptible to stock accumulations because their market values declined sharply (Katz and Niles 2020). In general, when partitioning the firms into different groups, we do not find statistically significant differences among 2019 financials.

In panel C, we show data on the presence of staggered board, the presence of a dissatisfied shareholder, and the percentage of shares held by various types of institutions. Again, all groups appear to be similar in the year leading up to COVID-19.¹⁶

Finally, in panel D, we show that the adopting firms experienced a striking 57% decline in stock prices from February 20 to March 23. The decline in stock price is similar in the MSI and non-MSI groups, but as expected, it is 11.5% lower in the high exposure group compared to the low-to-moderate group. The average of the 10-day post-announcement gross returns following pill adoption is 8.1%. Importantly, the return is much higher for the MSI group than for the non-MSI group, and for the high exposure group than for the low-to-moderate group. Although the differences are not statistically significant at the 10%

¹⁶Internet Appendix Table IA15 shows mean summary statistics for all four different groups in the two-by-two split. By and large, the inferences remain the same.

level (the t -statistic is 1.63 for both partitions), this suggests that firms that experienced an MSI and were highly exposed to the crisis were the ones more likely to benefit from pill adoptions.

To further understand which firms adopted pills during the pandemic, Table 2 reports a series of probit models in which the dependent variable is an indicator variable equal to one if a firm adopted a poison pill during COVID-19. Model 1 reports the results of a model focusing on the two variables we use to create subsamples in the proceeding event study analysis: high COVID-19 exposure and a meaningful stake increase.¹⁷ Both are positively correlated with pill adoption and significant at no less than the 5% level. The marginal effects suggest that firms in industries with high exposure to the pandemic are 1.9% more likely to adopt, while those experiencing an MSI are 0.9% more likely to adopt. These results support the notion that crisis pills were adopted to curb stock accumulations in firms hit hard by COVID-19.

Model 2 adds an indicator variable for the presence of a staggered board and a dissatisfied shareholder as defined by [Kedia, Starks, and Wang \(Forthcoming\)](#), as well as the percentage of transient, dedicated, and quasi-indexer institutional ownership as defined by [Bushee \(2001\)](#). Staggered boards could serve as a substitute to a poison pill to the extent that they make boards more immune to activists' interventions because they limit the ability of activists to replace the full board. Consistent with this substitution effect, the coefficient on the staggered board indicator is negative, though insignificant (p -value = .29 in model 2). Transient or dissatisfied shareholders may be more amenable to collaborating with hedge fund activists and thus could make firms more vulnerable to hedge fund intervention. We find that firms with a greater percentage of transient shareholders or a higher percentage of dissatisfied shareholders are more likely to adopt a pill, though the coefficient on dissatisfied

¹⁷High COVID-19 exposure is defined by directly mapping [Moody's Investor Services \(2020\)](#) industry classification onto two-digit SIC codes. We classify the following industries as high exposure industries: 23, 25, 30, 33, 37, 42, 43, 45, 47, 52–59, 70, 72, 75, 58, 79, and 84. MSI is defined as any firm that has an investor either (a) cross the 5% threshold by buying more than 1% between December 31, 2019, and March 31, 2020 or (b) an existing 5% blockholder buying at least an additional 0.5% during that same period. The MSI variable matches the definition used in the proceeding event study analysis.

shareholders is not significant (p -value = .21 in model 2).

Model 3 adds control variables for firm financials, and model 4 adds two-digit SIC industry fixed effects. The results are qualitatively similar to those in the first two specifications. The only financial variable predictive of adoption is a firm’s market leverage. This is consistent with research on hedge fund activism that shows that highly levered firms make attractive hedge fund targets (Brav et al. 2008; Klein and Zur 2011).

4.2 Stock price reactions to poison pills in the COVID-19 crisis

In this subsection, we discuss the market reaction to the adoption of crisis pills, and how this reaction varies based on whether it follows a meaningful stock accumulation (using the MSI measure) and whether firms are highly exposed to the crisis. We start by documenting the overall market reaction to the announcement of COVID-19 poison pills. As discussed in Section 3, we estimate abnormal returns using a market model that is augmented with an industry return factor comprising mean daily returns for each firm’s two-digit SIC industry, excluding the firm of interest. Further, we focus on the date the firm *announces* the adoption of the pill rather than the date the board agrees to the rights plan.¹⁸

As displayed in Figure 4 and Table 3, the average shareholder reaction was overwhelmingly positive. Consistent with Catan (2019), the CARs for pill adopters were negative in the days leading up to the announcement (see, e.g., Figure 4A). Following adoption, we show a strong positive reaction upon the announcement of the pill, with an announcement-day CAR of 2.9% and 10-day post-announcement CARs of over 4%. This stands in stark contrast to the CARs from a control sample matched on two-digit SIC code, total assets and market leverage with a nearest neighbor methodology with up to five matches. The “announcement”-day returns for the matched sample is statistically equal to zero and reaches -2.8% over the 10 days following. The difference between the CARs for the pill-adopting firms and those of the matched sample are significantly different from each other in every event window.

¹⁸The results are nearly identical if we focus on the adoption date, with slightly bigger day 1 returns and slightly smaller day 0 returns.

Thus, on average, the pills adopted during the COVID-19 crisis seem to carry positive shareholder value implications, and any big loss in value occurs prior to the announcement of a new pill. A positive reaction to the adoption of a poison pill during a crisis can occur for several potential reasons. First, firms with COVID-19-depressed valuations may be protecting valuable organizational capital from potential acquirers who may look to make changes in operating strategies. Second, as noted by [Rock and Sylvester \(2020\)](#), poison pills may give managers latitude to respond to the crisis, rather than spending valuable time negotiating with activists or defending their operating strategy. Finally, consistent with [Coates \(2000\)](#), shareholders may view the adoption of the pill as a signal to the market that large acquisitions of outstanding stock will require the appropriate control premium.

While the sheer number of pill adoptions during the market decline, especially in the absence of a vibrant M&A market, suggests that pills were designed to protect firms against rapid accumulation of shares by an activist, firms had varying degrees of exposure to the activism market. As discussed above, we use 13D, 13G, and 13F filings to distinguish firms that experience a MSI and those that did not. Though these firms may have been exposed to activist interventions well before any filings or COVID-19, the filings likely made the threat more tangible to the board and potentially even hinted at a proxy fight to come.¹⁹ Thus, one could reasonably expect the pills adopted in response to such a stake increase during the pandemic to carry different implications for shareholder value.

Consistent with this notion, [Figure 5](#) displays starkly different CARs for firms with and without an MSI for two separate CAR windows, [-15,15] (panel A) and [-5,5] (panel B), particularly in the days following the announcement. In fact, [Table 4](#) documents that the [0]-day CAR is 5.7% for the firms experiencing a meaningful stake increase, compared to an insignificant 0.0% increase for those without one. By day 10, the CARs for the MSI group

¹⁹Tables IA15 and IA16 and Figures IA16 and IA17 in the Internet Appendix report results that use an indicator variable for firms with current shareholders defined as “high” or “very high” activism threats by FactSet instead of the meaningful stake increase measure. This should capture firms involved in ongoing negotiations with an activist and firms that are particularly worried about a current activist doubling down and increasing its stake.

increase to 12%. In all relevant windows, firms experiencing the arrival of a new or newly engaged activist enjoy a significantly larger stock price reaction to the announcement of the poison pill. Further, even with low power from the small sample, the t -statistics are large (7 of 10 windows > 6) in panels A and C.

The results in Figure 5 and Table 4 have several potential explanations. First, shareholders could view meaningful stake increases by activists during the crisis as potentially disruptive to the long-term prospects of the firm. This is consistent with that idea that poison pills to ward off activists are value increasing, at least in the context of the COVID-19 crisis.²⁰ Second, the poison pill could be manufactured by management simply to increase the costs of the intervention for the activist. For example, in most of the press releases, management indicates that the shares are currently undervalued. The likely effect of such language is to depress the supply of outstanding shares on the market by convincing the holders that a potential activist would not be paying the appropriate control premium.

Next, we focus on firms with varying levels of exposure to the COVID-19 crisis. Because performance measures, such as Tobin's q and ROA, suffer from endogeneity concerns, it is difficult to disentangle firms that are poorly managed and adopt poison pills to entrench their board members from those that are well managed and adopted pills in earnest attempts to protect a valuable operating strategy from being disrupted by potential acquirers or activists. Here, we exploit the widely differential effects the pandemic has had on firms operating in different industries. That is, many firms with valuable operating strategies may unfortunately have been hit particularly hard by social distancing measures and other attempts to control the spread of the virus. We use [Moody's Investor Services \(2020\)](#) to identify such firms.

Figure 6 shows the CARs from the $[-15,15]$ and $[-5,5]$ windows for both firms with high exposure and low-to-moderate exposure. The high exposure firms adopt the pill following a much steeper decline in market value than the low-to-moderate exposure firms. Moreover,

²⁰Further supporting this theory, Internet Appendix Figure IA17 and Table IA18 report the event study results surrounding the filing of a 13D or 13G. In all windows, the CARs are negative.

following adoption, the high exposure firms experience a positive stock price effect of 6.3% on the day of announcement and nearly 14 after 10 days (e.g., see Table 5). In contrast, the low-to-moderate exposure firms experience a relatively flat stock price effect in most event windows, particularly the longer ones. There is also a statistically significant difference between the CARs of the high exposure and low-to-moderate exposure firms for all but the [-1,1] event window. This suggests that the circumstances of adoption and the aftermath depend on the extent to which firms were affected by the crisis. One possible explanation for these results is that firms in the highly exposed group are adopting pills to protect valuable operating strategies and to give managers additional slack during the crisis, while those in the low-to-moderately exposed group could be trying to pool with the high exposure group and adopt for relatively more nefarious reasons.

Our next step is to consider the intersection of firms with a meaningful stake increase and firms with varying exposure to COVID-19. Thus for Figure 7 and Table 6, we split firms into four groups: (1) those that experience an MSI and are highly exposed to COVID-19, (2) those that experience an MSI and are in the low-to-moderate exposure group, (3) those that do not experience an MSI and are in the high exposure group, and (4) those without an MSI that are in the low-to-moderate exposure group. Table 5 shows that, consistent with the argument that activists acted opportunistically during the pandemic to exploit hard-hit firms, a higher percentage of the highly exposed pill adopters were targeted than the low-to-moderately exposed adopters (47% vs. 38%).

Figure 7A shows the CARs from the [-15,15]-day window. A number of patterns are clear from the plots. First, the firms that adopted pills that are most similar to “clear-day” pills, that is, those in the no-MSI and low-to-moderate exposure groups, experience almost no meaningful reaction to the firms’ announcements of rights plans. Second, both subgroups with a meaningful stake increase enjoy nonnegative CARs starting around 5 days prior to the announcement of the pill. However, there is an important distinction. Those firms in the low-to-moderate industries experience nearly all of the gain in CARs *prior* to the

announcement of the pill and even see a significant drop 2 days after announcement before essentially leveling off through day 15. This pattern could suggest that shareholders view the actual stake accumulation in low-to-moderately exposed firms as value increasing, consistent with a large portion of the activism literature (Brav et al. 2008; Bebchuk, Brav, and Jiang 2015; Becht et al. 2009; Brav, Jiang, and Kim 2015; Brav et al. 2018). The pattern for the MSI, high exposure group is almost completely the opposite. The entire gain in CARs can be attributed to the period *after* the announcement of the pill. As Table 5 documents, this includes a dramatic 12.7% return on the day of the announcement and 24% ten days later.

Even for a small sample (just nine firms), the CARs in panel A of Table 6 are highly statistically significant. In fact, for all windows, the t -statistics are over 6. Further, in nearly every event window (the exceptions being -1,1), the CARs for highly exposed firms with a meaningful stake increase are significantly larger than those for the other three groups. The reason the CARs are not significantly different in [-1,1] is because the low-to-moderately exposed firms with a meaningful stake increase have large positive CARs prior to the announcement of the poison pill.²¹

4.3 Stock price reactions and plan characteristics

In this section, we examine whether pill characteristics that are potentially unfair to shareholders may be associated with a stock price effect. Much of the policy debate relating to poison pills concerns their characteristics, particularly the duration and trigger threshold. In normal times, the ISS generally recommends withholding votes from directors for plans longer than 3 years and with triggers below 20% (except for NOL pills with the trigger of 5%), though they do note that all pills are to be evaluated on a case-by-case basis (ISS 2019). However, as we note in Section 2, these guidelines were softened for pill adoptions

²¹The group of firms with high COVID-19 exposure but without a meaningful stake increase also seem to experience positive CARs in the days leading up to the poison pill. Much of the dip in CARs for this group, as well as the subsequent recovery in the preannouncement period, can be attributed to the single firm Tempur Sealy experiencing very drastic drops followed by very large gains in the stretch between 8 and 3 days prior to the announcement of its poison pill.

during the pandemic. It is important to emphasize first that the crisis pills in our main sample rarely violate ISS’s COVID-19 recommendations. For example, only one non-NOL pill (Spirit AeroSystems) has a 10% trigger or lower and a 3-year duration, and it is actually subject to shareholder ratification after 1 year. This already supports the notion that the pills adopted in the downturn are not primarily designed to entrench managers.

However, a few pills have a particularly low trigger of about 5%. The ISS strongly criticized the Williams Companies because the pill had a 5% trigger but was not designed to protect an NOL (Driebusch 2020). The other three firms that adopted such pills are Real Estate Investment Trusts (REITs), where ownership is already typically limited to about 10% by the terms of the trust (Latham & Watkins 2020), and only two of them are in the main COVID-19 sample. As shown in Figure 8, in spite of ISS’s opposition to these low-trigger pills, the stock reactions to the announcements of all (non-NOL) 5% trigger pills were positive. We also note that the cumulative abnormal return across event windows experienced by the Williams Companies was positive as well.

We also examine other pill characteristics that may be subject to legal challenge. In Figure 8, we separately plot the CARs for (1) pills that have “acting in concert” provisions, which specifically target hedge funds who may be purchasing small percentages of shares without expressly coordinating with other hedge funds, (2) discriminatory pills which prescribe a higher trigger for passive institutional investors (typically 20% compared to 10% for other investors), and thus may be viewed as directly targeting investors who seek to challenge managers, and (3) “extreme pills,” which we define as having triggers of 10% or under, are discriminatory, and have an “acting in concert” provision. The results all show that the stock of the companies adopting these pills experienced a positive reaction in the days following the adoptions. Overall, these results demonstrate that rigid rules to regulate the characteristics of pills may not be warranted, at least so far as crisis pills are concerned.

4.4 Other governance provisions: Staggered boards

The above results show that a governance provision, that is, the poison pill, may be an effective tool to mitigate the potential harmful effect of disruptive ownership changes in a time of crisis. Our analysis begs the question whether other governance provisions included in the G-index (Gompers, Ishii, and Metrick 2003) or E-index (Bebchuk, Cohen, and Ferrell 2009) can serve a similar role. Because hedge fund activists often seek to replace members of the board (Brav et al. 2008), we hypothesize that a staggered board could potentially serve as a substitute to poison pills.

Unlike poison pills, staggered boards require shareholder approval under Delaware law. Further, activists often seek to replace only a few directors to the board, and a staggered board means that in any given election, only a third of the board can be replaced. Thus, it is questionable if firms can move quickly enough to adopt staggered boards in a crisis, and if they can, whether it would prevent activist acquisitions of stock. However, it is likely that a preexisting staggered board would reduce activists' leverage over the board, because of the stability it provides. Thus, poison pills may be less consequential in enabling managers to address the crisis and focus on a long-term strategy for firms with staggered boards. This hypothesis is generally consistent with studies that highlight the role of staggered boards in long-term value maximization (Cremers, Litov, and Sepe 2017). Note that in Table 2, we find that firms with staggered boards were less likely to adopt poison pills, although the result was not statistically significant (p -value = .16).

To examine this substitution hypothesis, we split the sample into firms that had a staggered board and those that did not at the time the pill was adopted. As shown in Figure 9 and Table 7, the firms that did not have a staggered board when the pill was adopted experienced a large positive stock price effect following the pill adoption. In contrast, those that already had a staggered board experienced no such effect. Thus, pill may have had a material effect on managers' ability to deal with the risk of a disruptive ownership change in

firms where boards were less stable. While more research is necessary to evaluate the how governance provisions interact with one another, the results suggest that staggered boards may serve as a substitute to poison pills under crisis.

4.5 Robustness

Our results strongly suggest that managers adopted pills to ward of opportunistic activist interventions and that by and large, shareholders viewed these response pills positively. However, the COVID-19 sample is extremely small, and we must exercise caution when interpreting the results. In particular, as shown in [Amihud and Stoyanov \(2017\)](#), small sample results can be heavily influenced by just a few firms or authors' specific filter choices. To mitigate these types of concerns, we submit our main results to a battery of robustness tests. These tables and figures appear in the Internet Appendix, but we briefly go through the tests in this section. We find our main inferences remain intact when employing the following robustness checks:

1. Using the full sample of pill adoptions from March to June (Tables IA1–IA4; Figures IA1–IA4)
2. Using the Fama-French three-factor model to estimate abnormal returns (Tables IA5–IA8; Figures IA5–IA8)
3. Using the Fama-French three-factor model to estimate abnormal returns (Tables IA9–IA12; Figures IA9–IA12)
4. Alternative measures of potential activist interventions. In particular,
 - (a) Using only 13D and 13G filings to identify meaningful stake increases (Tables IA13 and IA14; Figures IA13 and IA14)
 - (b) Using the existence of “high” and “very high” activist shareholders during the pandemic as defined by FactSet (Tables IA16 and IA17; Figures IA15 and IA16)
 - (c) Using above-median total COVID-19 stake increases (Tables IA19 and IA20; Figures IA18 and IA19)

5. Reclassifying Oil & Gas firms from “moderate” exposure to “high” exposure. This changes the classification for the following firms: Occidental Petroleum, The Williams Companies, Delek U.S. Holdings, Whiting Petroleum, and ProPetro Holding (Tables IA21 and IA22; Figures IA20 and IA21)
6. Use an alternative measure of high COVID-19 exposure. In particular, following [Fahlenbrach, Rageth, and Stulz \(2020\)](#), firms with low financial flexibility as defined by below-median cash/assets (Tables IA23 and IA24; Figures IA22 and IA23)
7. Removing event study filter excluding penny stocks, which adds the following firms to the analysis: Global Eagle Entertainment, Heat Biologics, Chesapeake Energy, and Tengasco (Tables IA25–IA28; Figures IA24–IA37)
8. Excluding pills designed to protect NOLs (Tables IA29–IA32; Figures IA28–IA31)
9. Excluding finance and regulated industries (Tables IA33–IA36; Figures IA32–IA38))
10. Omitting the firms with the largest and smallest [0,10] CARS. This removes Dave & Buster’s Entertainment (largest) and Whiting Petroleum (smallest) (Tables IA37–IA40; Figures IA36–IA39)
11. Winsorizing daily abnormal returns in the [-2,10] window at the 2.5% and 97.5% levels (Tables IA41–IA44; Figures IA40–IA43)

A final concern stems from our subsample analysis and the fact that we are essentially testing multiple hypotheses (two hypotheses in Tables 3, 4, and 6; and four hypotheses in Table 5). As Carlo Emilio Bonferroni discovered, multiple testing can lead to inflated chances of Type 1 error, or overrejection of the null hypothesis. To ensure our tests do not suffer from this problem, we reexamine our results using the Bonferroni corrected p -values, $\alpha_{\text{critical}} = 1 - (1 - \alpha/k)^k$, where $k = 2$ or 4 in our case. While the Bonferroni correction is extremely demanding given the assumption of independence across tests, our main results easily survive as the number of our multiple tests is low and our t -statistics are very large.

5 Discussion and Policy Implications

We document robust evidence of a positive stock price reaction associated with pill adoptions specifically designed to deter activist investors from making stock acquisitions during the COVID-19 crisis. However, we emphasize that we cannot make causal inferences based on such an event study. That is, the results do not imply that adopting poison pills positively affects valuations in crisis situations in the sense that companies would have fared worse if they hadn't adopted poison pills. The reason for this is of course that pill adoptions are not random, and companies adopt pills to address their idiosyncratic circumstances.

However, when evaluating the desirability of pill adoptions, we are primarily interested in whether or not these adoptions benefit the firms that actually adopted them, rather than any potentially harmful effects on nonadopters. On this front, we believe that the results suggest that the decisions to adopt crisis pills to stave off activist campaigns were, on average, beneficial for firm value. The negative abnormal returns associated with the disclosure of stock accumulations further suggests that the market viewed such accumulations as disruptive. Thus, it is plausible that adoption decisions signal managers' determination to prevent purchases that could exploit temporary negative shocks induced by the crisis. This is consistent with the signaling rationale for pill adoptions (Coates 2000). These may be firms that have viable business models or highly valuable organizational capital, but are simply not well-suited for unexpected extreme conditions, such as negative cash flow and revenue shock resulting from COVID-19. Accordingly, crisis pills may be an effective strategy to mitigate the impact of steep market declines and market volatility on firms' ownership.

The response of the proxy advisory firms, such as the ISS and Glass Lewis, is broadly in line with the findings of this paper. As discussed above, both have stated that they will view poison pills more favorably and will not necessarily recommend that shareholders withhold votes. However, the ISS still criticized the poison pill adopted by the Williams Companies on the basis that the 5% trigger was very low (Driebusch 2020). Moreover, a shareholder lawsuit

was filed in Delaware challenging the validity of the pill on this basis (Montgomery 2020). Interestingly, we do not find that a low trigger is associated with a negative stock price effect. In fact, the Williams Companies itself experienced a positive stock price effect following the pill adoption, and Glass Lewis diverged from the ISS in supporting the board. As shown above, we also find that other arguably problematic pill characteristics are associated with a positive stock price effect.

Our analysis thus suggests that bright line rules for invalidating pills, at least in crisis situations, may not be desirable. This is generally consistent with evidence outside the crisis context showing that following ISS guidelines on corporate governance is not necessarily conducive to shareholder value (Daines, Gow, and Larcker 2010). Moreover, low triggers may be justified in a crisis context because activists can easily wage a proxy fight by buying less than 10% of the stock, and in a crisis situation the costs of doing so would be very low. While a comprehensive analysis of the Williams Companies’ pill adoption is beyond the scope of this paper, we think that the courts would be well-advised to take into account the turmoil of the market in evaluating the validity of poison pills.²²

6 Conclusion

The design and purpose of poison pills has evolved over more than 35 years. Poison pills, once a common feature of firms’ governance, have mostly disappeared in the recent decade. They have made a comeback with the adoption of over 70 pills at the beginning of the COVID-19 pandemic. These “crisis pills” have lower triggers and relatively short durations and are mostly intended to deter activist investors from accumulating equity stakes.

The disastrous market downturn following the COVID-19 outbreak created unique conditions for researchers to examine the role of governance, and particularly antiactivist poison pills, in a crisis. The downturn not only made stock accumulations much cheaper for ac-

²²This is consistent with recent literature that argues that courts should take into account macroeconomic conditions in adjudicating cases (Listokin 2017; Strauss 2019; Dagan and Somech 2020).

tivists to buy but also forced firms to prioritize attempts to mitigate the impact of the crisis on a wide range of stakeholders, including employees, consumers, and investors. Of course, different crises may play out differently, and, thus, pills may be used to address different threats, particularly hostile takeovers. Accordingly, we cannot fully predict how crisis pills would be used and what their impact would be in any future crisis. However, the results of our study suggest that the market may favorably view boards that adopt crisis pills to curb activists' accumulations.

While a broader study is needed to examine the full ramifications of poison pills as an antiactivist measure, we show that even highly restrictive pills that limit shareholder rights may be associated with higher shareholder value, at least under crisis. Importantly, the poison pill may prove particularly beneficial as a governance mechanism to mitigate the impact of a crisis and give managers the latitude to address the crisis.

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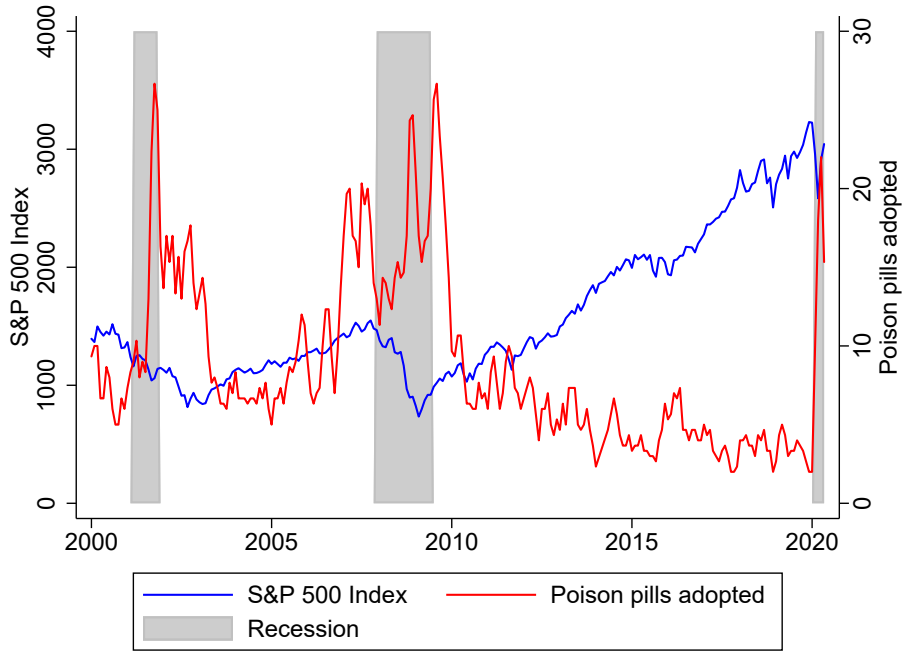
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Figure 1: Crisis poison pills

These panels display the tendency of firms to adopt poison pills during periods of crisis. Panel A displays the S&P 500 index and the 3-month moving average of poison pill adoptions from January 2000 through May 2020. The gray shading represents a recession as defined by the Federal Reserve Bank of St. Louis using data from the NBER on U.S. Business Cycle Expansions and Contractions. Data on poison pill adoptions are manually recorded from 8-k filings. Panel B displays the 3-month moving average of the Volatility Index (VIX) and the 3-month moving average of poison pill adoptions from January 2000 through May 2020.

(A) Recessions and poison pill adoptions



(B) VIX and poison pill adoptions

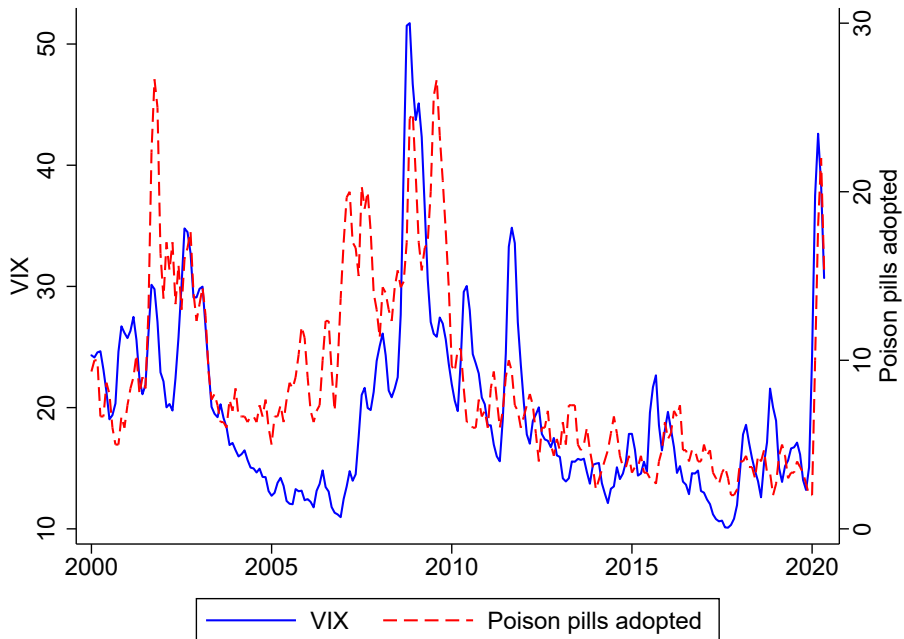


Figure 2: Moody's industry exposure classification

This figure displays a heat map of exposed industries to the COVID-19 pandemic from a March 17, 2020, Moody's Investors Services Sector In-Depth report. We use this report to classify pill-adopting firms as having high, moderate, or low exposure to the coronavirus crisis. See Table A1 in the appendix for more details on our classification. *Source: Moody's Investor Services (2020).*



Figure 3: COVID-19 poison pills

This figure displays the timing of poison pill adoptions by firms of varying exposure to the COVID-19, as well as 13D filings in the midst of the crisis. From March to June, at least 73 firms adopted poison pills, including the 26 firms we classify as having high exposure to COVID-19. We collect information about the adoption of poison pills from the Thomson Reuters SDC and FactSet databases, as well as news searches in Factiva and manual searches of SEC filings on the Edgar website. We manually verify the dates of adoption and press releases, as well as characteristics of the rights plans, via firms' 8-k filings.

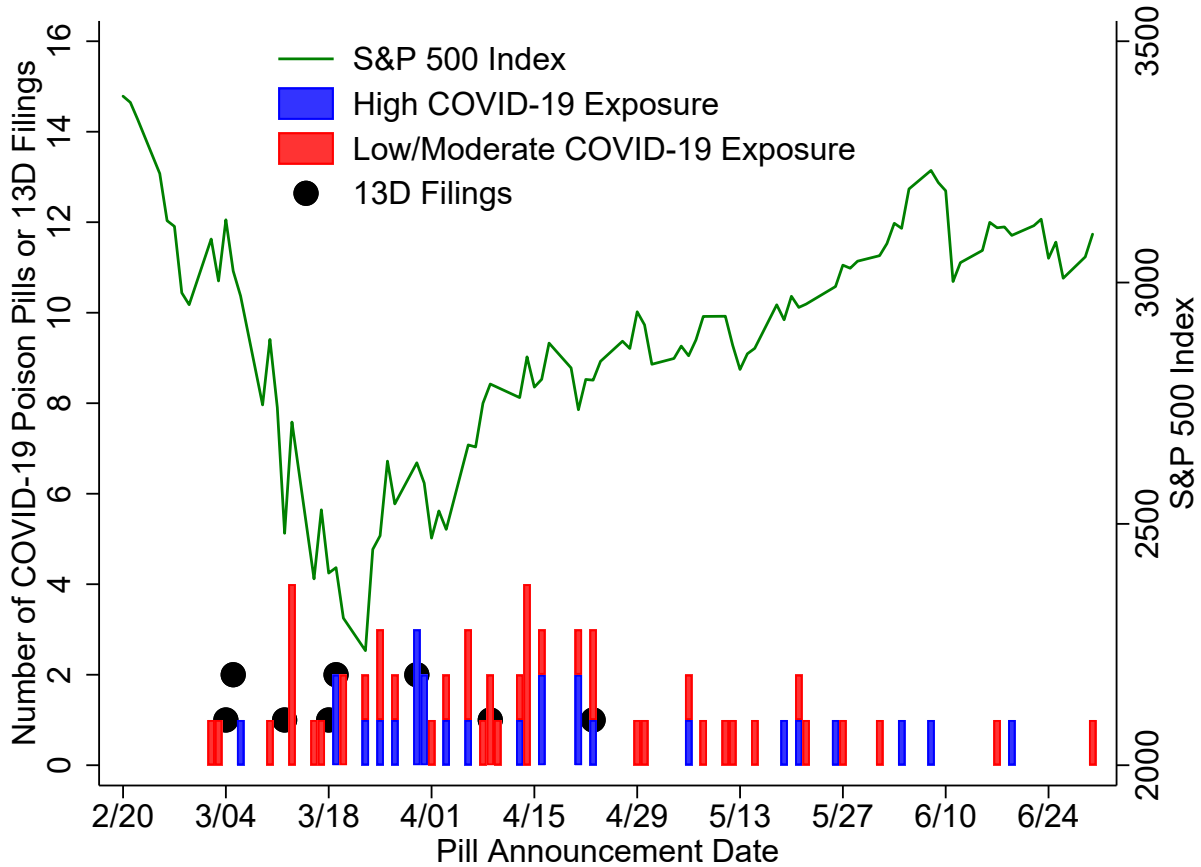
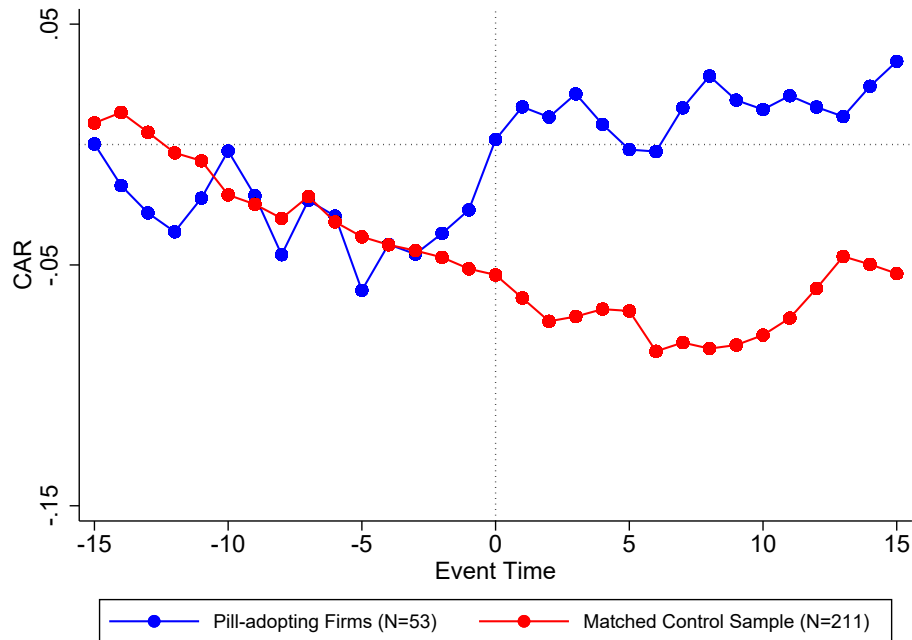


Figure 4: COVID-19 poison pill cumulative abnormal announcement returns

These figures display cumulative abnormal returns (CARs) around the announcement of a poison pill adoption. Panel A displays CARs over an event window of $[-15,15]$, and panel B displays CARs over an event window of $[-5,5]$. CARs are estimated using a market model, augmented with an industry return factor comprising mean daily returns for each firm's two-digit SIC industry code (excluding the firm of interest), with data from Kenneth French's website. We use the calendar year 2019 as an estimation window to avoid contaminating the estimation with COVID-19-related returns or volatility. Daily raw excess returns are calculated from daily price data taken from the CRSP Daily Stock file.

(A) $[-15,15]$ window



(B) $[-5,5]$ window

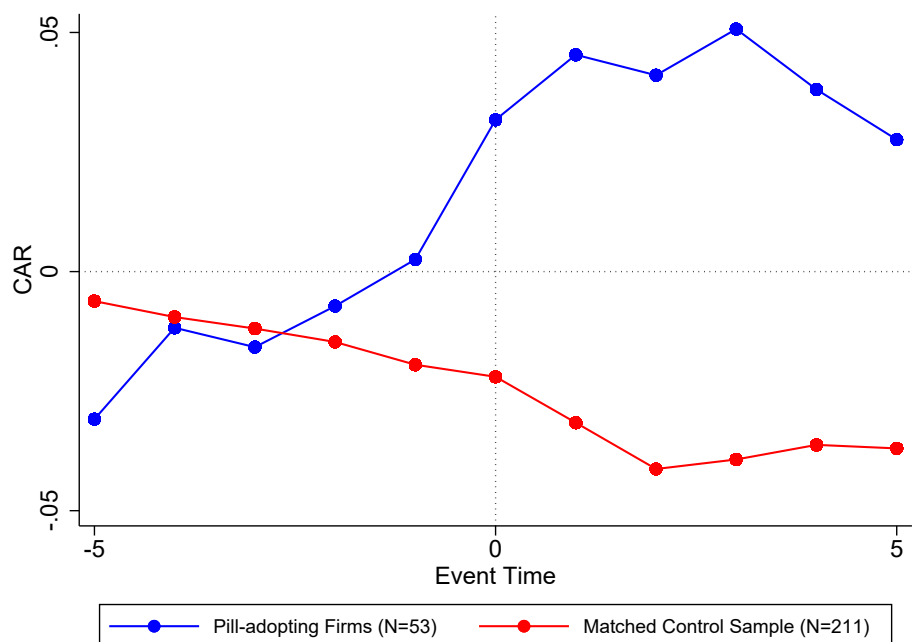
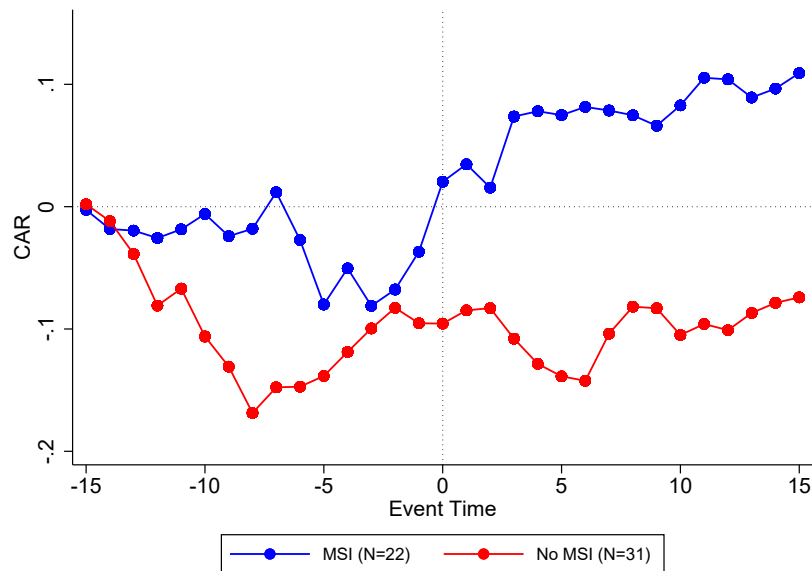


Figure 5: Cumulative abnormal returns by meaningful stake increases

These figures display cumulative abnormal returns (CARs) around the announcement of a poison pill adoption for two groups of firms: (1) those in which an investor made a meaningful stake increase during the period from February 20 to May 15, but prior to the adoption of a poison pill and (2) those in which no such meaningful stake was made. Using 13D, 13G, and 13F filings, we define a meaningful stake increase (MSI) as any investor that either (a) crosses the 5% of common shares outstanding threshold or (b) has an existing 5% block and subsequently adds to that block. Panel A displays CARs over an event window of $[-15,15]$, and panel B displays CARs over an event window of $[-5,5]$. CARs are estimated using a market model, augmented with an industry return factor comprising mean daily returns for each firm's two-digit SIC industry code (excluding the firm of interest), with data from Kenneth French's website. We use the calendar year 2019 as an estimation window to avoid contaminating the estimation with COVID-19-related returns or volatility. Daily raw excess returns are calculated from daily price data taken from the CRSP Daily Stock file.

(A) $[-15,15]$ window



(B) $[-5,5]$ window

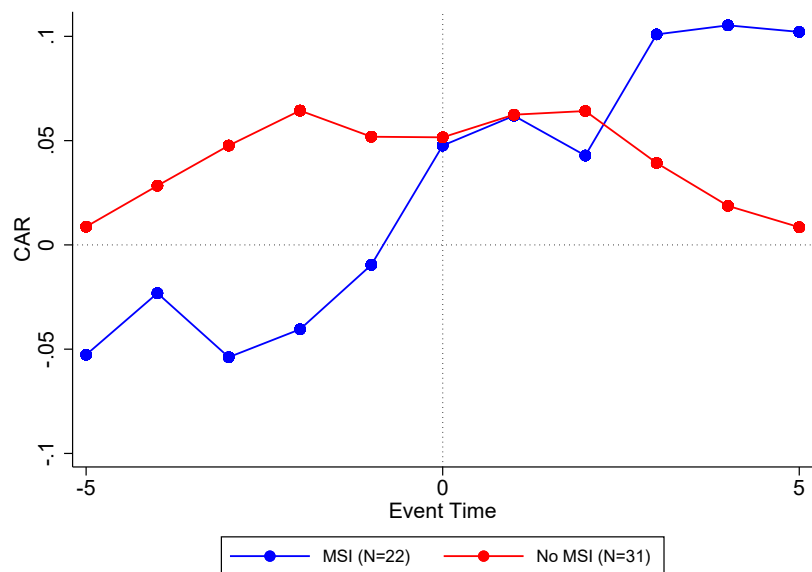
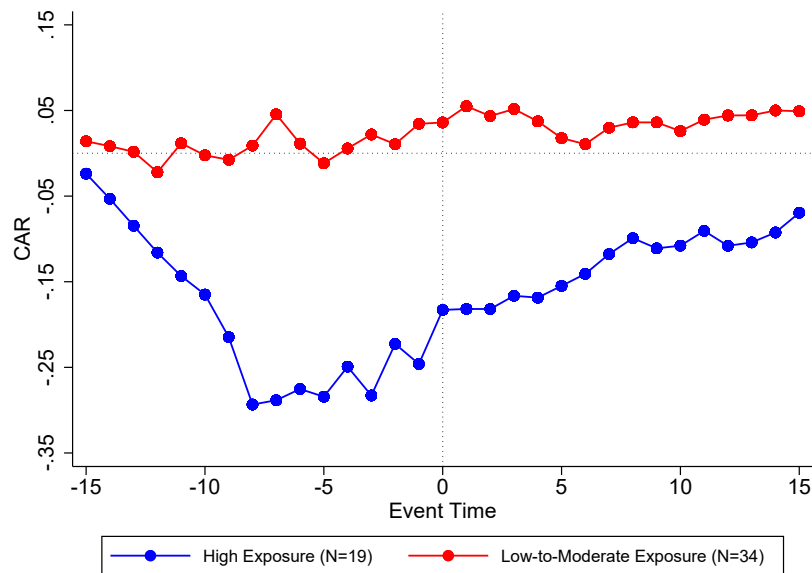


Figure 6: Cumulative abnormal returns by COVID-19 exposure

These figures display cumulative abnormal returns (CARs) around the announcement of a poison pill adoption for two groups of firms: (1) those with high exposure to the COVID-19 crisis and (2) those with low or moderate exposure to the COVID-19 crisis. We use [Moody's Investor Services \(2020\)](#) to classify pill-adopting firms as having high, moderate, or low exposure to COVID-19. See Figure 2 for a heat map of exposed industries. Panel A displays CARs over an event window of $[-15,15]$, and panel B displays CARs over an event window of $[-5,5]$. CARs are estimated using a market model, augmented with an industry return factor comprising mean daily returns for each firm's two-digit SIC industry code (excluding the firm of interest), with data from Kenneth French's website. We use the calendar year 2019 as an estimation window to avoid contaminating the estimation with COVID-19-related returns or volatility. Daily raw excess returns are calculated from daily price data taken from the CRSP Daily Stock file.

(A) $[-15,15]$ window



(B) $[-5,5]$ window

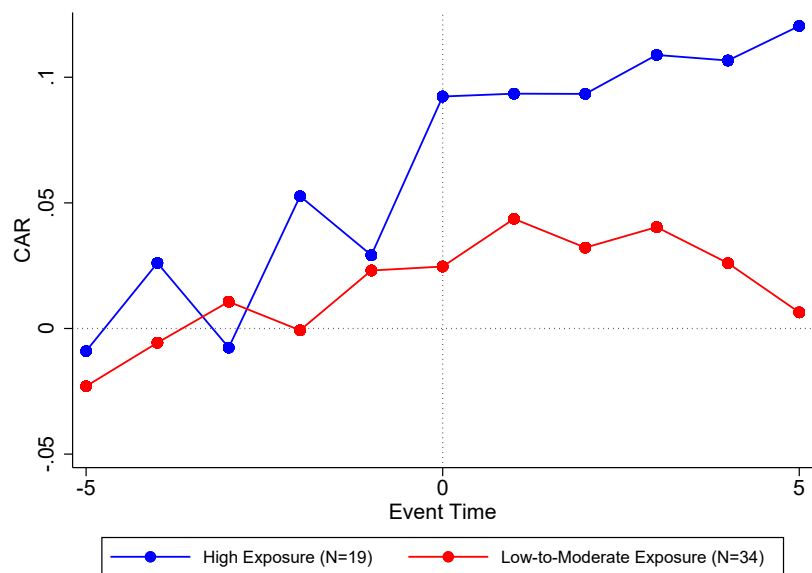
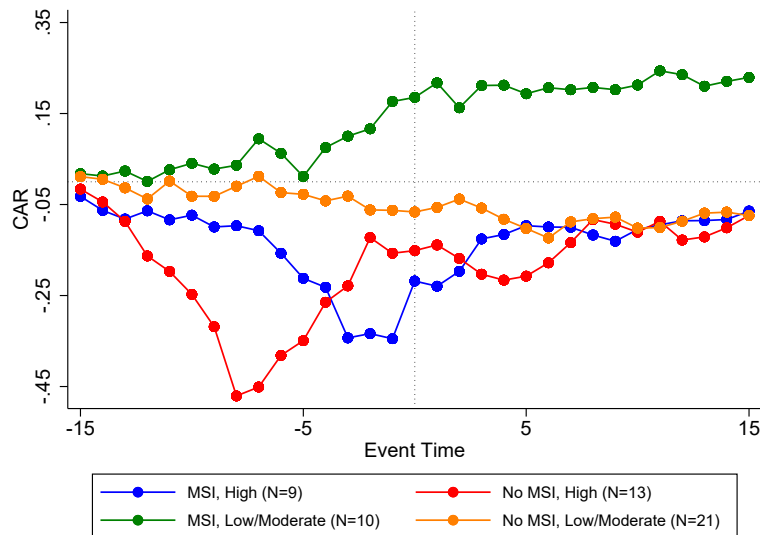


Figure 7: Cumulative abnormal returns by meaningful stake increases and COVID-19 exposure

These figures display cumulative abnormal returns (CARs) around the announcement of a poison pill adoption for four groups of firms: (1) those in which an investor made a meaningful stake and had high exposure to COVID-19, (2) those in which an investor made a meaningful stake and had low or moderate exposure to COVID-19, (3) those in which no such meaningful stake was made and had high exposure to COVID-19, and (4) those in which no such meaningful stake was made and had low or moderate exposure to COVID-19. Using 13D, 13G, and 13F filings, we define a meaningful stake increase (MSI) as any investor that either (a) crosses the 5% of common shares outstanding threshold or (b) has an existing 5% block and subsequently adds to that block. We use [Moody's Investor Services \(2020\)](#) to classify pill-adopting firms as having high, moderate, or low exposure to COVID-19. See Figure 2 for a heat map of exposed industries. Panel A displays CARs over an event window of $[-15,15]$, and panel B displays CARs over an event window of $[-5,5]$. CARs are estimated using a market model, augmented with an industry return factor comprising mean daily returns for each firm's two-digit SIC industry code (excluding the firm of interest), with data from Kenneth French's website. We use the calendar year 2019 as an estimation window to avoid contaminating the estimation with COVID-19-related returns or volatility. Daily raw excess returns are calculated from daily price data taken from the CRSP Daily Stock file.

(A) $[-15,15]$ window



(B) $[-5,5]$ window

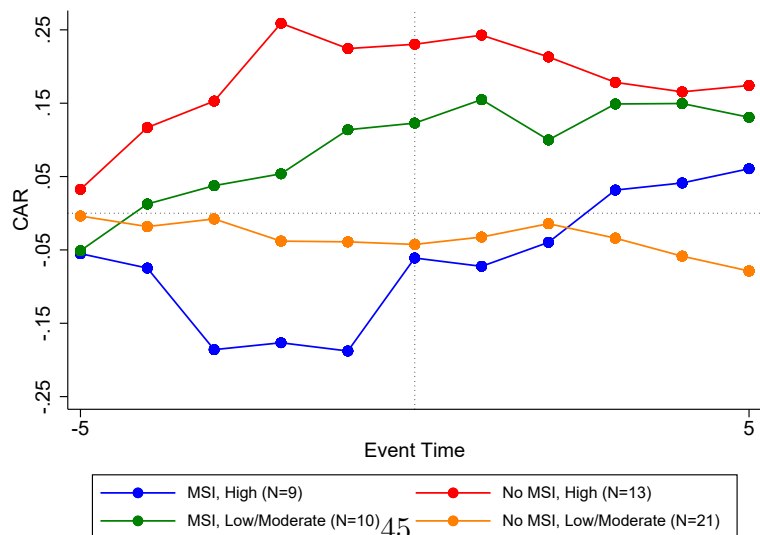
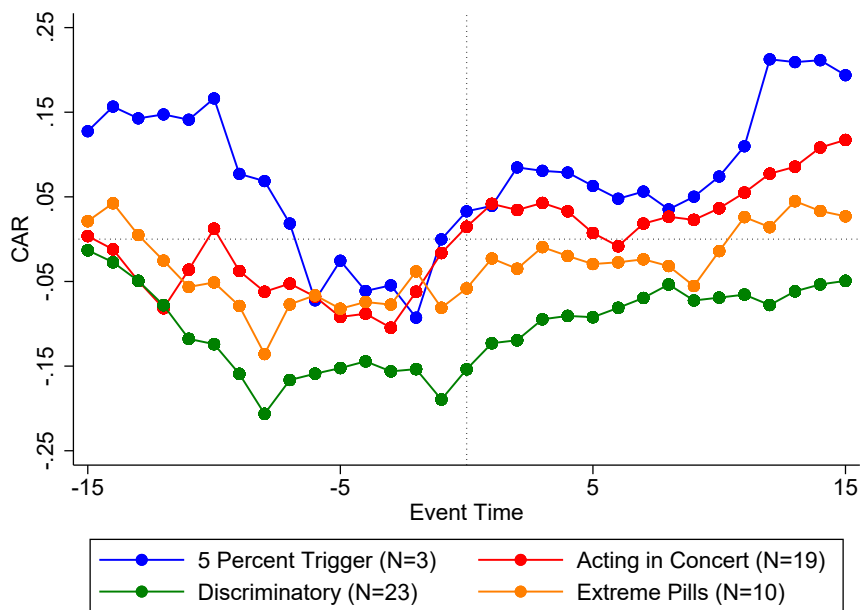


Figure 8: Cumulative abnormal returns and pill characteristics

These figures display cumulative abnormal returns (CARs) around the announcement of a poison pill adoption for four subgroups of poison pills that are not meant to protect NOL: (1) those with 5% triggers (3 pills), (2) those with an acting in concert provision (19 pills), (3) those that are discriminatory (23 pills), and (4) those that are “extreme” (10 pills). We define “extreme” pills as plans that have triggers of 10% or under, are discriminatory, and have an acting in concert provision. CARs are estimated using a market model, augmented with an industry return factor comprising mean daily returns for each firm’s two-digit SIC industry code (excluding the firm of interest), with data from Kenneth French’s website. We use the calendar year 2019 as an estimation window to avoid contaminating the estimation with COVID-19-related returns or volatility. Daily raw excess returns are calculated from daily price data taken from the CRSP Daily Stock file.

(A) [-15,15] window



(B) [-5,5] window

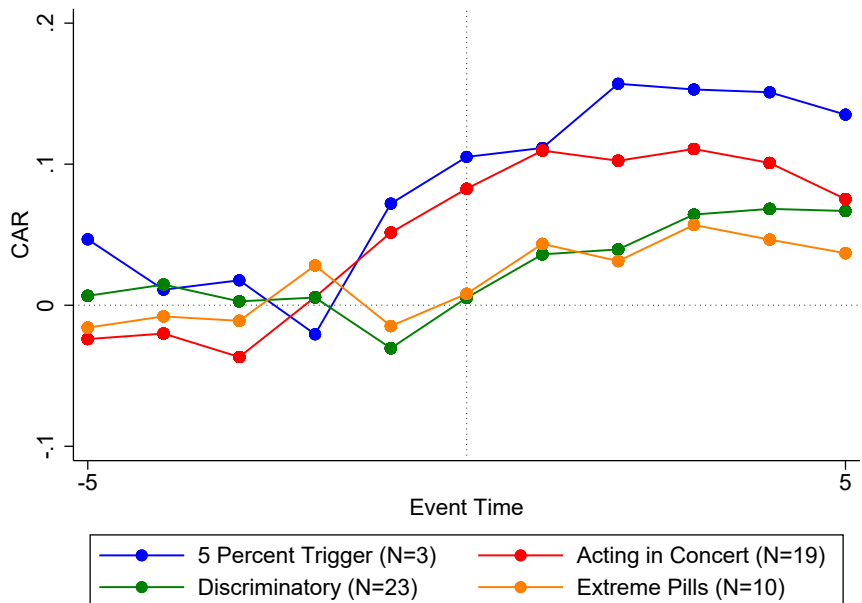
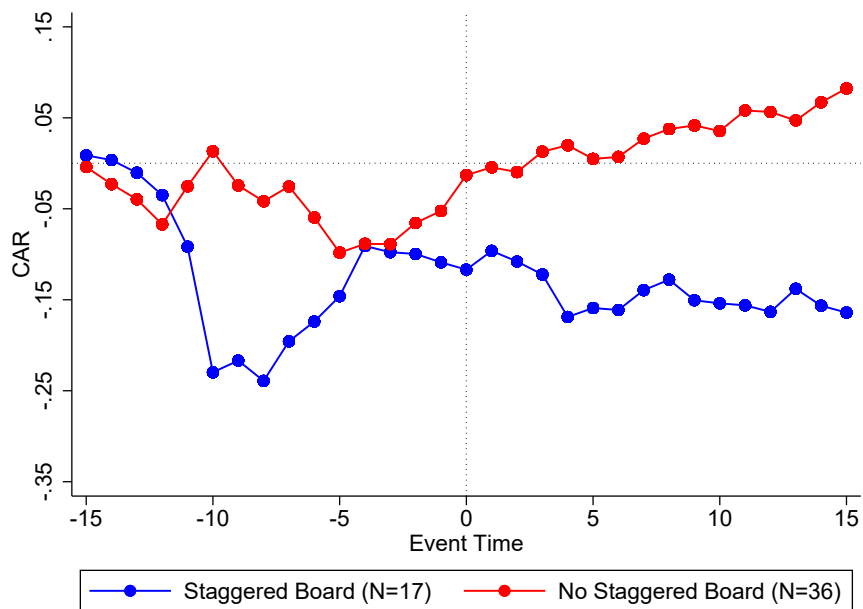


Figure 9: Cumulative abnormal returns and staggered boards

These figures display cumulative abnormal returns (CARs) around the announcement of a poison pill adoption for two subgroups of firms: (1) those with a staggered board and (2) those without a staggered board. Data on the presence of a staggered board come from the ISS Governance Database, FactSet, or CapitalIQ. CARs are estimated using a market model, augmented with an industry return factor comprising mean daily returns for each firm's two-digit SIC industry code (excluding the firm of interest), with data from Kenneth French's website. We use the calendar year 2019 as an estimation window to avoid contaminating the estimation with COVID-19-related returns or volatility. Daily raw excess returns are calculated from daily price data taken from the CRSP Daily Stock file.

(A) [-15,15] window



(B) [-5,5] window

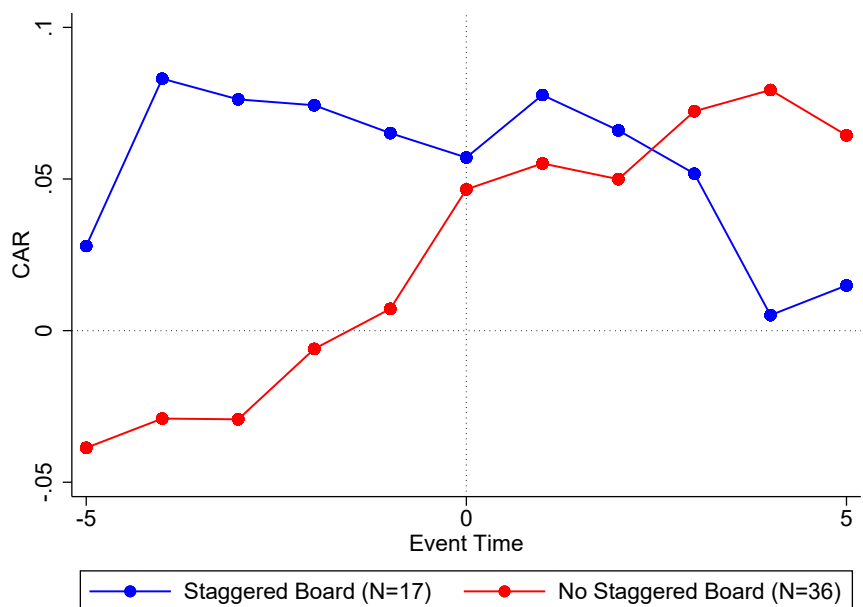


Table 1: Descriptive statistics for COVID-19 poison pills and adopting firms This table reports summary statistics for the adopted rights plans mean characteristics (panel A), the means of pill-adopting firms' industry-adjusted financials (panel B), the presence of a staggered board, a dissatisfied investor and percentage holdings of different types of institutional investors (panel C), and the mean raw returns experienced by the firm during the largest COVID-19-related drop (February 2, 2020, to March 9, 2020), and the 10 days following the announcement of the poison pill (panel D). We split the sample into two different groups. First, we split into (1) those in which an investor made a meaningful stake increase during the period from February 20 to May 15, but prior to the adoption of a poison pill and (2) those in which no such meaningful stake was made. Using 13D, 13G, and 13F filings, we define a meaningful stake increase (MSI) as any investor that either (a) crosses the 5% of common shares outstanding threshold or (b) has an existing 5% block and subsequently adds to that block. Next, we split into (1) those with high exposure to the COVID-19 crisis and (2) those with low or moderate exposure to the COVID-19 crisis. We use [Moody's Investor Services \(2020\)](#) to classify pill-adopting firms as having high, moderate, or low exposure to COVID-19. See Figure 2 for a heat map of exposed industries. Raw returns data in panel C are calculated from daily price data taken from the CRSP Daily Stock file.

	All	Meaningful stake increase				COVID-19 exposure			
		Yes (N=22)	No (N=31)	Diff.	<i>t</i> -stat	High (N=19)	Low/moderate (N=34)	Diff.	<i>t</i> -stat
<i>A. Shareholder rights' plan descriptive statistics</i>									
Duration (years)	1.48	1.33	1.58	-0.25	-0.97	1.09	1.70	-0.61	-2.43**
Trigger (%)	12.10	13.65	10.91	2.74	1.78*	10.88	13.05	-2.16	-1.38
NOL pill	0.264	0.227	0.290	-0.063	-0.50	0.105	0.353	-0.248	-2.00**
Shareholder vote required	0.208	0.182	0.226	-0.044	-0.38	0.105	0.265	-0.159	-1.37
Chewable pill	0.208	0.182	0.226	-0.044	-0.38	0.053	0.294	-0.241	-2.13**
Acting in concert provision	0.226	0.227	0.226	0.001	0.01	0.211	0.235	-0.025	-0.20
Discriminatory pill	0.434	0.455	0.419	0.035	0.25	0.737	0.265	0.472	3.67***
<i>B. 2019 industry-adjusted firm financials</i>									
Tobin's q	-0.036	0.281	-0.244	0.525	1.80*	-0.075	-0.014	-0.061	-0.20
Total assets (\$Ms)	3826.3	5448.0	2762.1	2686.0	0.61	1688.7	5020.9	-3332.2	-0.74
Market leverage	0.153	0.105	0.185	-0.080	-1.26	0.174	0.142	0.033	0.49
Cash/book assets	0.016	0.053	-0.009	0.062	1.07	0.009	0.020	-0.011	-0.18
CapEx/book assets	0.007	0.010	0.005	0.005	0.55	0.009	0.005	0.003	0.35
R&D expense/book assets	-0.004	0.002	-0.009	0.011	0.36	-0.007	-0.003	-0.004	-0.12
Total sales (\$Ms)	1422.3	1436.4	1413.0	23.4	0.02	1955.3	1124.4	830.9	0.75
ROA	-0.032	-0.049	-0.020	-0.029	-0.36	-0.006	-0.047	0.041	0.50
ROE	-0.078	-0.264	0.045	-0.309	-1.19	-0.024	-0.108	0.084	0.31
EPS (\$s)	-0.230	-0.528	-0.035	-0.492	-0.41	-0.273	-0.207	-0.066	-0.05
Dividend yield	0.015	0.013	0.016	-0.003	-0.28	0.014	0.015	0.0	-0.04
Net operating loss (NOL) (\$Ms)	374.6	427.5	331.9	95.7	0.31	434.6	340.6	94.0	0.30
NOL/market value	1.4	1.0	1.6	-0.6	-0.55	0.4	1.9	-1.6	-1.46
Years in CRSP	2.377	1.714	2.813	-1.098	-0.21	0.579	3.382	-2.803	-0.53
<i>C. Governance and ownership</i>									
Staggered board	0.321	0.286	0.344	-0.058	-0.44	0.316	0.324	-0.008	-0.06
Pct. transient ownership (%)	21.3	20.8	21.5	-0.8	-0.17	23.0	20.3	2.7	0.64
Pct. dedicated ownership (%)	2.8	2.9	2.7	0.2	0.14	2.2	3.1	-1.0	-0.68
Pct. quasi-indexer ownership (%)	41.6	42.5	41.1	114	0.27	49.0	37.5	11.4	2.26**
Dissatisfied shareholder	0.717	0.714	0.719	-0.004	-0.03	0.737	0.706	0.031	0.24
<i>D. Raw returns</i>									
Feb. 20th—Mar. 23rd	-0.578	-0.579	-0.578	0.0	-0.01	-0.652	-0.537	-0.115	-2.44**
10 days post-announcement	0.081	0.156	0.028	0.128	1.63	0.165	0.034	0.131	1.63

Table 2: Who adopted poison pills during the COVID-19 pandemic?

This table displays the results of probit models in which the dependent variable is an indicator that equals one if a firm adopted a poison pill during COVID-19. A firm is classified as having high exposure to COVID-19 if it is in one of the following two-digit SIC industries: 23, 25, 30, 33, 37, 42, 43, 45, 47, 52-59, 70, 72, 75, 78, 79, or 84. A firm is classified as having a meaningful stake increase if an institutional investor either (a) crosses the 5% threshold or (b) is an existing 5% blockholder that subsequently increases its stake by at least 1% between December 31, 2019, and March 31, 2020. Data on the presence of a staggered board are from ISS, FactSet, or Capital IQ. Ownership data come from Thomson Reuters 13F filings, institutional classifications are from Brian Bushee's website, and mutual fund voting data from ISS Voting Analytics data are used to construct the Dissatisfied Shareholder indicator. Robust standard errors, reported in parentheses, are clustered at the industry level.

Dependent variable =	Adopt Poison Pill Indicator			
	(1)	(2)	(3)	(4)
High COVID-19 exposure	0.397*** (0.120)	0.372*** (0.120)	0.217** (0.109)	
Meaningful stake increase	0.235** (0.114)	0.182* (0.108)	0.183* (0.107)	0.197 (0.123)
Staggered board		-0.127 (0.120)	-0.146 (0.106)	-0.143 (0.118)
Pct. transient ownership		1.148** (0.500)	1.133** (0.451)	1.440*** (0.439)
Pct. dedicated ownership		0.091 (0.543)	-0.211 (0.534)	-0.204 (0.552)
Pct. quasi-indexer ownership		-0.304 (0.294)	0.335 (0.366)	0.168 (0.429)
Dissatisfied Shareholder		0.187 (0.150)	0.138 (0.126)	0.105 (0.137)
Tobin's q			-0.094 (0.090)	-0.078 (0.082)
log(Book assets)			-0.015 (0.040)	-0.008 (0.043)
Market leverage			0.889*** (0.290)	0.822** (0.370)
Cash/book assets			0.568 (0.460)	0.404 (0.507)
CapEx/book assets			0.692 (0.998)	0.142 (1.287)
ROA			-0.112 (0.181)	-0.207 (0.183)
ROE			0.045 (0.046)	0.044 (0.048)
EPS			-0.020 (0.022)	-0.018 (0.024)
Dividend yield			2.132 (1.529)	2.009 (2.047)
Industry FE	No	No	No	Yes
Observations	3,747	3,672	2,925	2,247
pseudo-R ²	.023	.037	.094	.132

Table 3: COVID-19 poison pills cumulative abnormal announcement returns

This table displays cumulative abnormal returns (CARs) around the announcement of a poison pill adoption. The table analyzes five different event windows: (1) [0], (2) [-1,1], (3) [-2,2], (4) [0,5], and (5) [0,10]. CARs are estimated using a market model, augmented with an industry return factor, with data from Kenneth French's website. We use the calendar year 2019 as an estimation window to avoid contaminating the estimation with COVID-19-related returns or volatility. Daily raw excess returns are calculated from daily price data taken from the CRSP Daily Stock file.

Event window	CAR	<i>t</i> -statistic	<i>p</i> -Value
<i>A. Pill-adopting firms (N=53)</i>			
[0]	0.029***	7.30	<.001
[-1,1]	0.053***	7.59	<.001
[-2,2]	0.057***	6.36	<.001
[0,5]	0.025**	2.56	.011
[0,10]	0.042***	3.14	.002
<i>B. Matched control firms (N=211)</i>			
[0]	-0.003	-1.15	.251
[-1,1]	-0.017***	-4.44	<.001
[-2,2]	-0.029***	-5.99	<.001
[0,5]	-0.017***	-3.26	.001
[0,10]	-0.028***	-3.79	<.001
<i>C. Difference (pill-adopting minus control)</i>			
[0]	0.032***	6.96	<.001
[-1,1]	0.069***	8.79	<.001
[-2,2]	0.086***	3.11	.002
[0,5]	0.043***	3.81	<.001
[0,10]	0.069***	4.58	<.001

Table 4: Cumulative abnormal announcement returns by meaningful stake increase

This table displays cumulative abnormal returns (CARs) around the announcement of a poison pill adoption. The table analyzes five different event windows: (1) [0], (2) [-1,1], (3) [-2,2], (4) [0,5], and (5) [0,10]. Panel A displays the CARs for firms in which an investor made a meaningful stake increase during the period from February 20 to May 15, but prior to the adoption of a poison pill. Panel B displays the CARs for the firms in which no such meaningful stake was made. Using 13D, 13G, and 13F filings, we define a meaningful stake increase (MSI) as any investor that either (a) crosses the 5% of common shares outstanding threshold or (b) has an existing 5% block and subsequently adds to that block. Panel C displays the difference between firms with an MSI (panel A) and firms without one (panel B). CARs are estimated using a market model, augmented with an industry return factor comprising mean daily returns for each firm's two-digit SIC industry code (excluding the firm of interest), with data from Kenneth French's website. We use the calendar year 2019 as an estimation window to avoid contaminating the estimation with COVID-19-related returns or volatility. Daily raw excess returns are calculated from daily price data taken from the CRSP Daily Stock file.

Event window	CAR	<i>t</i> -statistic	<i>p</i> -value
<i>A. Meaningful stake increase (N=22)</i>			
[0]	0.057***	9.27	<.001
[-1,1]	0.102***	9.58	<.001
[-2,2]	0.097***	7.0	<.001
[0,5]	0.112***	7.39	<.001
[0,10]	0.120***	5.84	<.001
<i>B. No meaningful stake increase (N=31)</i>			
[0]	-0.000	-0.05	.958
[-1,1]	-0.002	-0.21	.834
[-2,2]	0.017	1.36	.175
[0,5]	-0.043***	-3.25	.001
[0,10]	-0.010	-0.53	.595
<i>C. Difference (MSI minus no MSI)</i>			
[0]	0.057***	6.98	<.001
[-1,1]	0.104***	7.31	<.001
[-2,2]	0.080***	3.12	.002
[0,5]	0.155***	7.68	<.001
[0,10]	0.129***	4.73	<.001

Table 5: COVID-19 pill announcement returns by COVID-19 exposure

This table displays cumulative abnormal returns (CARs) around the announcement of a poison pill adoption. The table analyzes five different event windows: (1) [0], (2) [-1,1], (3) [-2,2], (4) [0,5], and (5) [0,10]. Panel A displays the CARs for firms with high exposure to the COVID-19 crisis, and panel B displays CARs for firms with low or moderate exposure to the COVID-19 crisis. We use [Moody's Investor Services \(2020\)](#) to classify pill-adopting firms as having high, moderate, or low exposure to COVID-19. See [Figure 2](#) for a heat map of exposed industries. Panel C displays the difference between firms with high exposure (panel A) and firms with low-to-moderate exposure (panel B). CARs are estimated using a market model, augmented with an industry return factor comprising mean daily returns for each firm's two-digit SIC industry code (excluding the firm of interest), with data from Kenneth French's website. We use the calendar year 2019 as an estimation window to avoid contaminating the estimation with COVID-19-related returns or volatility. Daily raw excess returns are calculated from daily price data taken from the CRSP Daily Stock file.

Event window	CAR	<i>t</i> -statistic	<i>p</i> -value
<i>A. High COVID-19 exposure (N=19)</i>			
[0]	0.063***	9.48	<.001
[-1,1]	0.041***	3.54	<.001
[-2,2]	0.101***	6.78	<.001
[0,5]	0.091***	5.59	<.001
[0,10]	0.138***	6.26	<.001
<i>B. Low-to-moderate COVID-19 exposure (N=34)</i>			
[0]	0.002	0.30	.762
[-1,1]	0.044***	4.94	<.001
[-2,2]	0.022*	1.86	.063
[0,5]	-0.017	-1.31	.189
[0,10]	-0.009	-0.50	.620
<i>C. Difference (High minus low-to-moderate)</i>			
[0]	0.062***	7.30	<.001
[-1,1]	-0.004	-0.24	.807
[-2,2]	0.079***	3.26	.001
[0,5]	0.108***	5.22	<.001
[0,10]	0.147***	5.24	<.001

Table 6: Cumulative abnormal announcement returns by meaningful stake increase and COVID-19 exposure

This table displays cumulative abnormal returns (CARs) around the announcement of a poison pill adoption. The table analyzes five different event windows: (1) [0], (2) [-1,1], (3) [-2,2], (4) [0,5], and (5) [0,10]. Panel A displays the CARs for firms in which an investor made a meaningful stake and had high exposure to COVID-19. Panel B displays the CARs for firms in which an investor made a meaningful stake and had low or moderate exposure to COVID-19. Panel C displays the CARs for firms in which no such meaningful stake was made and had high exposure to COVID-19. Finally, panel D displays the CARs for firms in which no such meaningful stake was made and had low or moderate exposure to COVID-19. Using 13D, 13G, and 13F filings, we define a meaningful stake increase (MSI) as any investor that either (a) crosses the 5% of common shares outstanding threshold or (b) has an existing 5% block and subsequently adds to that block. We use [Moody's Investor Services \(2020\)](#) to classify pill-adopting firms as having high, moderate, or low exposure to COVID-19. See Figure 2 for a heat map of exposed industries. Differences between each panel of CARs and subsequent panels are displayed in columns 5, 7, and 9. CARs are estimated using a market model, augmented with an industry return factor comprising mean daily returns for each firm's two-digit SIC industry code (excluding the firm of interest), with data from Kenneth French's website. We use the calendar year 2019 as an estimation window to avoid contaminating the estimation with COVID-19-related returns or volatility. Daily raw excess returns are calculated from daily price data taken from the CRSP Daily Stock file.

Event window	CAR	<i>t</i> -statistic	<i>p</i> -value	Minus panel B	(<i>p</i>)	Minus panel C	(<i>p</i>)	Minus panel D	(<i>p</i>)
<i>A. Meaningful stake increase and high exposure (N=9)</i>									
[0]	0.127***	14.51	<.001	0.118***	(<.001)	0.121***	(<.001)	0.130***	(<.001)
[-1,1]	0.104***	6.88	<.001	0.003	(.885)	0.120***	(<.001)	0.099***	(<.001)
[-2,2]	0.146***	7.49	<.001	0.084***	(.001)	0.086***	(.001)	0.153***	(<.001)
[0,5]	0.248***	11.61	<.001	0.231***	(<.001)	0.299***	(<.001)	0.288***	(<.001)
[0,10]	0.240***	8.29	<.001	0.204***	(<.001)	0.194***	(<.001)	0.279***	(<.001)
<i>B. Meaningful stake increase and low-to-moderate exposure (N=13)</i>									
[0]	0.009	1.06	.288			0.003	(.810)	0.013	(.240)
[-1,1]	0.101***	6.86	<.001			0.117***	(<.001)	0.096***	(<.001)
[-2,2]	0.062***	3.28	.001			0.002	(.925)	0.069***	(<.001)
[0,5]	0.017	0.82	.415			0.067**	(.035)	0.057**	(.031)
[0,10]	0.036	1.28	.201			-0.010	(.814)	0.075**	(.035)
<i>C. No meaningful stake increase and high exposure (N=10)</i>									
[0]	0.006	0.60	.551					0.009	(.425)
[-1,1]	-0.016	-0.95	.344					-0.022	(.290)
[-2,2]	0.060***	2.72	.007					0.067***	(.001)
[0,5]	-0.050**	-2.07	.038					-0.011	(.716)
[0,10]	0.046	1.41	.159					0.085**	(.030)
<i>D. No meaningful stake increase and low-to-moderate exposure (N=21)</i>									
[0]	-0.004	-0.54	.586						
[-1,1]	0.006	0.49	.625						
[-2,2]	-0.006	-0.44	.660						
[0,5]	-0.040**	-2.49	.013						
[0,10]	-0.039*	-1.80	.071						

Table 7: Cumulative abnormal announcement returns by the presence of a staggered boards

These table displays cumulative abnormal returns (CARs) around the announcement of a poison pill adoption for two subgroups of firm: (1) those with a staggered board and (2) those without a staggered board. Data on the presence of a staggered board are taken from ISS Governance Database, FactSet, or CapitalIQ. CARs are estimated using a market model, augmented with an industry return factor comprising mean daily returns for each firm's two-digit SIC industry code (excluding the firm of interest), with data from Kenneth French's website. We use the calendar year 2019 as an estimation window to avoid contaminating the estimation with COVID-19-related returns or volatility. Daily raw excess returns are calculated from daily price data taken from the CRSP Daily Stock file.

Event window	CAR	<i>t</i> -statistic	<i>p</i> -value
<i>A. Firms with a staggered board (N=17)</i>			
[0]	-0.008	-1.14	.255
[-1,1]	0.003	0.28	.782
[-2,2]	-0.010	-0.65	.518
[0,5]	-0.050***	-2.90	.004
[0,10]	-0.045*	-1.92	.054
<i>B. Firms without a staggered board (N=36)</i>			
[0]	0.039***	7.85	<.001
[-1,1]	0.061***	7.04	<.001
[-2,2]	0.079***	7.06	<.001
[0,5]	0.057***	4.66	<.001
[0,10]	0.088***	5.28	<.001
<i>C. Difference (staggered minus not staggered)</i>			
[0]	-0.047***	-5.47	<.001
[-1,1]	-0.058***	-3.85	<.001
[-2,2]	-0.089**	-2.45	.014
[0,5]	-0.107***	-5.06	<.001
[0,10]	-0.133***	-4.63	<.001

Appendix A

Table A1: Details on adopting firms and industry classification

This table details the pill-adopting firms and the press release date, whether they experienced a meaningful stake increase, their industry classifications, and the Adjusted Moody's industry exposure classification.

Firm	Date of press release	Meaningful stake increase	Three-digit SIC code	Industry description	Adj. Moody's classification
1. LSC Communications Inc.	March 2	No	275	Commercial printing	Moderate
2. Aviat Networks Inc.	March 3	No	366	Microwave networking	Low
3. Drive Shack Inc.	March 6	Yes	799	Golf & leisure	High
4. Cohen & Company Inc.	March 10	No	621	Asset management	Low
5. Heat Biologics Inc.	March 13	Yes	283	Biotechnology	Low
6. MMA Capital Holdings	March 13	No	628	Asset management	Low
7. Occidental Petroleum Corp.	March 13	Yes	131	Oil & gas	Moderate
8. GCP Applied Technologies	March 13	No	289	Construction products	Low
9. Ashford Inc.	March 16	No	628	Asset Management	Low
10. Tensasco Inc.	March 17	No	131	Oil & Gas	Moderate
11. Dave & Busters Entertainment Inc.	March 19	Yes	581	Restaurant & entertainment	High
12. Global Eagle Entertainment Inc.	March 19	No	489	Inflight entertainment	High
13. The Williams Cos Inc.	March 20	No	492	Oil & gas	Moderate
14. Delek U.S. Holdings Inc.	March 20	Yes	291	Oil & gas	Moderate
15. The Chefs Warehouse Inc.	March 23	Yes	514	Specialty foods	High
16. Aikido Pharma Inc.	March 23	No	873	Pharmaceutical	Moderate
17. Evofem Biosciences Inc.	March 25	Yes	283	Biopharmaceutical	Low
18. Fluor Corp.	March 25	Yes	871	Engineering & construction	Moderate
19. Barnes & Noble Education Inc.	March 25	No	594	Book retailer	High
20. Tempur Sealy International Inc.	March 27	No	251	Furniture retailer	High
21. Whiting Petroleum Corp.	March 27	No	131	Oil & gas	Moderate
22. Aar Corp.	March 30	No	372	Aviation & aerospace	High
23. Spirit Airlines Inc.	March 30	No	451	Commercial airline	High
24. Viad Corp.	March 30	No	738	Events & travel	High
25. Tailored Brands Inc.	March 31	Yes	561	Apparel retailer	High
26. Six Flags Entertainment Corp.	March 31	Yes	799	Amusement parks	High
27. Synalloy Corp.	April 1	Yes	331	Metal manufacturer	Moderate
28. Chico's FAS Inc.	April 3	No	562	Apparel retailer	High
29. Commvault Systems Inc.	April 3	Yes	737	Software	Moderate
30. Gannett Co. Inc.	April 6	No	271	Media company	Moderate
31. Hexcel Corp.	April 6	No	282	Composite manufacturer	Moderate
32. Woodward Inc.	April 6	Yes	382	Aviation supplier	High
33. Centrus Energy Corp.	April 8	Yes	140	Mining	Moderate
34. Neuronetics Inc.	April 8	No	804	Healthcare	Low
35. Global Net Lease Inc.	April 9	No	679	REIT	Low
36. Biospecifics Technologies Corp.	April 10	Yes	283	Biopharmaceutical	Low
37. Groupon Inc.	April 13	Yes	737	E-commerce	High
38. American Finance Trust Inc.	April 13	No	679	REIT	Low
39. ProPetro Holding Corp.	April 14	Yes	138	Oil & gas	Moderate
40. Tidewater Inc.	April 14	Yes	442	Offshore support	Low
41. Manning & Napier Inc.	April 14	Yes	628	Asset management	Low
42. Hilton Grand Vacations Inc.	April 16	No	704	Lodging & Leisure	High
43. NN Inc.	April 16	No	356	Metal Manufacturer	Moderate
44. Tenneco Inc.	April 16	No	371	Automotive supplier	High
45. Core Molding Technologies	April 21	No	308	Automotive supplier	High
46. Entercom Communications Corp.	April 21	No	483	Broadcasting company	Moderate
47. Express Inc.	April 21	Yes	560	Apparel retailer	High
48. Chesapeake Energy Corp.	April 23	No	131	Oil & gas	Moderate
49. Patterson UTI Energy Inc.	April 23	No	138	Oil & gas	Moderate
50. Spirit AeroSystems Holdings	April 23	Yes	372	Aviation & aerospace	High
51. Forum Energy Technologies Inc.	April 29	No	353	Oil & gas	Moderate
52. Nabors Industries LTD	May 5	No	138	Oil & gas	Moderate
53. iHearthMedia Inc.	May 6	No	483	Radio broadcasting	Moderate
54. Office Depot Inc.	May 6	No	594	Retailer	High
55. Gulfport Energy Corp.	May 7	Yes	131	Oil & gas	Moderate
56. New Home Co. Inc.	May 8	Yes	153	Construction & building	Low
57. PulteGroup Inc.	May 8	No	153	Construction & building	Low
58. Kindred Biosciences	May 12	No	283	Pharmaceutical	Low
59. Whitestone REIT	May 15	No	679	REIT	Low
60. Clear Channel Outdoor Holdings Inc.	May 19	No	731	Outdoor advertising	High
61. Healthcare Trust Inc.	May 19	No	679	REIT	Low
62. New York City REIT Inc.	May 19	No	679	REIT	Low
63. Cumulus Media Inc.	May 21	No	483	Radio broadcasting	Moderate
64. Insperity Inc.	May 21	No	736	Human Resources	High
65. RCM Technologies Inc.	May 22	No	736	Information technology	Moderate
66. Ascena Retail Group Inc.	May 26	No	560	Apparel retailer	High
67. Newport Resources Inc.	May 27	No	353	Oil & gas	Moderate
68. Extreme Networks Inc.	June 1	No	357	Communications equipment	Low
69. Image Sensing Systems Inc.	June 4	No	382	Traffic systems	High
70. ON Semiconductor Corp.	June 8	No	367	Automotive supplier	High
71. BBX Capital Corp.	June 17	No	650	REIT	Low
72. Scientific Games Corp.	June 19	No	737	Lottery & gaming	High
73. MYOS REN Technology Inc.	June 30	No	283	Pharmaceutical	Low

Table A2: Data appendix

This table defines the variables used in the empirical tests in the main portion of this paper and lists the data source(s) for each variable. All ratios are winsorized at the 1% and 99% levels.

Variable name	Source	Definition
Tobin's q	Compustat Annual	$((prcc_f * cshpri) + dlc + dltd + pstkl - txditc) / at$
Total assets (\$Ms)	Compustat Annual	at
Market leverage	Compustat Annual	$(dlc + dltd) / ((prcc_f * cshpri) + dlc + dltd + pstkl - txditc)$
Cash/book assets	Compustat Annual	che/at
CapEx/book assets	Compustat Annual	capx/at
R&D expense/book assets	Compustat Annual	xrd/at
Total sales (\$Ms)	Compustat Annual	sale
Return on assets (ROA)	Compustat Annual	ebitda/atq
Return on equity (ROE)	Compustat Annual	ni/seq
Earnings per share (EPS) (\$s)	Compustat Annual	ni/csho
Dividend yield	Compustat Annual	dvpsp_f/prcc_f
Net operating loss (\$Ms)	Compustat Annual	tlcf
NOL/market value	Compustat Annual	tlcf/(prcc_f * cshpri)
Years since IPO	CRSP	Number of years since firm stock returns in CRSP
Staggered board	ISS, FactSet, CapitalIQ	Indicator equal to one if a firm currently has a staggered board
Pct. transient ownership	Thomson Reuters 13F filings and Brian Bushee's data on investor classification	shares/(shrout2*1,000) if investor = "TRA"
Pct. dedicated ownership	Thomson Reuters 13F filings and Brian Bushee's data on investor classification	shares/(shrout2*1,000) if investor = "DED"
Pct. quasi-indexer ownership	Thomson Reuters 13F filings and Brian Bushee's data on investor classification	shares/(shrout2*1,000) if investor = "QIX"
Dissatisfied shareholder	ISS Voting Analytics	Indicator equal to one if a mutual fund has voted against management in the previous 3 years
Raw daily returns	CRSP	ret

Appendix B Case Studies

Several examples suggest that activist investors began making significant purchases in companies that suffered a major revenue shock due to COVID-19 and that boards adopted poison pills to protect the shareholders from the possibility that activists would acquire a large block:

- Occidental Petroleum: The energy company suffered a 79% drop in its stock price amid collapsing oil prices. This allowed the infamous activist investor, Carl Icahn, to increase his stake from 2.5% to almost 10%. Icahn had criticized the company for its past acquisitions and sought to replace the CEO and board of the firm (Crowley and Carroll 2020; Weinstein et al. 2020). On March 12, the very day Icahn filed a 13D disclosing his interest, the firm implemented a poison pill with a trigger of 15%. Following Occidental’s announcement of the pill, its stock price increased by 20% on March 13. Eventually, Icahn settled for choosing two directors rather than ousting the entire board (Driebusch 2020).
- Delek U.S. Holdings: On March 19, Carl Icahn filed a 13D disclosing a brand-new 14.9% stake after Delek experienced a 47 percent decline in its stock price from its 2020 high. Icahn also disclosed his intention of discussing a potential transaction between Delek and another energy company. On March 20, just 1 day after Icahn’s 13D, the company adopted a poison pill with a 15% trigger and 1-year duration. Delek (2020) stated that it was open to exploring potential transactions but justified the pill with current market conditions, writing, in part, that the “current share price does not reflect the company’s intrinsic long-term value due to extreme dislocation caused by the COVID-19 crisis and low commodity prices.” Consistent with this sentiment, the shareholder response was overwhelmingly positive, with returns over 30% the day the plan was announced (the S&P 500 index declined by over 4%).
- Dave & Buster’s Entertainment: As a company that combines in-person games, entertainment and dining at its establishments, D&B was particularly susceptible to the social distancing requirements imposed by local governments during the pandemic. The company’s stock reflected this concern as prices plummeted by nearly 90% over a 4-week stretch in late February and early March. On March 4, during the midst of Dave & Buster’s decline, renowned private equity firm KKR reported purchasing almost 10% of the company’s stock through various entities.²³ While there was already speculation about a takeover before the crisis based on a mid-January disclosure by KKR, the combination of KKR’s stock acquisition and a second large accumulation of shares (5.5% by March 31) by Eminence Capital LP, a hedge fund, presumably concerned the board.²⁴ On March 18, the company chose to adopt a poison pill with

²³See <https://www.sec.gov/Archives/edgar/data/1525769/000114036120004709/0001140361-20-004709-index.htm>

²⁴Though 13F filings, we infer Eminence Capital acquired a significant stake in the company sometime in the first quarter of 2020. See <https://www.sec.gov/Archives/edgar/data/1107310/000108514620001619/0001085146-20-001619-index.htm>

a trigger of 15% (20% for passive investors). The next day, upon announcement of the rights plan, Dave & Buster's stock price rose over 76% (as compared to a rise of 0.5% for the S&P 500). In May 2020, the company agreed to appoint the KKR managing director to its board, as it continued to reduce expenses and obtain concessions to weather the economic downturn.²⁵ Interestingly, KKR sold almost 7 percent of its stake on May 12, 2020.

- Tailored Brands: As a retail holding company for various men's apparel brands with thousands of brick and mortar stores across the United States, Tailored Brands was hit also hit extremely hard by COVID-19. Between February 20 and March 19, its stock fell sharply by over 70%. Right at the time Tailored Brands bottomed out, investor Michael Burry, the head of hedge fund Scion Management, increased his total stake to 7.2%.²⁶ On March 30, 2020, less than two weeks after Scion's 13D disclosure, the company adopted a poison pill with a 10% trigger (or 20% for passive investors). Upon announcement of the pill on March 31, Tailored Brand's stock increased by 12% (relative to a 1.6% drop in the S&P). On May 7, 2020, Scion sold about 3% of the company's stock. More recently, the firm has continued to struggle as demand for work and formal wear has remained low in light of work-from-home mandates and the postponement of events. In fact, the firm filed for bankruptcy in August 2020.
- CommVault Systems: The firm that provides data protection and management services suffered a major slowdown due to a decline in demand for its services by businesses who sought to reduce costs (Trefis and Great Speculations 2020). Amidst the downturn, Starboard Value LP purchased a 9.3% stake on March 20.²⁷ The hedge fund bought call options at the end of February, but started buying shares as CommVault began to recover from its lows after March 18, stopping 9 days later (Value Walk 2020). A few days later on April 3, 2020, CommVault adopted a poison pill to prevent any person or group from acquiring control "without paying an appropriate control premium." While returns were flat on the day of announcement, by April 9, CommVault's price had risen by nearly 10%. In June, Starboard reached an agreement with the company to nominate six directors to Commvault's 11-member board (Herbst-Bayliss and Vengat-til 2020).
- Spirit AeroSystems Holdings: The company is one of the world's largest manufacturers of airplane parts, and one of Boeing's main suppliers. Naturally, with the virtual halt in flights and the ensuing falling production of airplanes, Spirit's revenues dramatically declined, and its stock price dropped by 73% in just over a month. On March 9, Darsana Capital Partners LP filed a 13G disclosing that it had increased its stake to 5.95% of the firm. In addition, based on 13F filings, multiple other hedge funds acquired smaller stakes in the company in the first quarter of 2020. On April 22, the

²⁵See https://www.sec.gov/ix?doc=/Archives/edgar/data/1525769/000110465920059892/tm2019322d1_8k.htm.

²⁶See https://www.sec.gov/Archives/edgar/data/884217/000090514820000435/efc20-303_sc13da.htm.

²⁷See https://www.sec.gov/Archives/edgar/data/1169561/000092189520000941/sc13d06297167_03302020.htm.

firm adopted a poison pill with a trigger of 10% (20% for passive investors) and a 1-year duration. The justification for the pill was to “protect Spirit and its stockholders from parties seeking to take advantage of Spirit’s lower stock price and the current market environment.”²⁸ Following the announcement of the plan on April 23, the stock price increased by 2.2% and had risen by 18% just 5 days later. However, with limited recovery in the airline industry, the company has continued to struggle and by July engaged in several rounds of layoffs (Assis 2020).

²⁸https://www.sec.gov/Archives/edgar/data/1364885/000110465920050390/tm2016469d1_ex99-1.htm.