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PORTFOLIO SPILLOVER OF INSTITUTIONAL INVESTOR ACTIVISM: AN AWARENESS–MOTIVATION–CAPABILITY PERSPECTIVE

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Scholars have investigated how shareholder activism by institutional investors—organizations that manage money on behalf of clients—directly shapes the actions of firms that are targeted for activism. We shift attention to an indirect process we call "portfolio spillover"—the extent to which activist behavior targeted toward a firm in an investor's portfolio of holdings influences actions by other firms that are not presently targeted for activism. We examine portfolio spillover by extending the awareness–motivation–capability framework from its traditional domain of competitive dynamics to the governance arena. We theorize that firms will be more likely to respond to investors targeting other portfolio members to the extent that those firms become aware of the implicit threat of activism. We also develop and test theory about how the capability of activists to launch a successful campaign and the motivation of firms to react can moderate this relationship. Using data from a sample of S&P 1500 companies from 2000–2013, we find that firms restructure and reduce growth in response to portfolio spillover. These relationships are stronger when activist investors have capability to attack and firms have motivation to respond.

> "Activist shareholder" has displaced "hostile takeover" as the phrase most likely to strike fear into a chief executive.
>
> —Katherine Rushton (2014)

"Institutional investors"—organizations such as mutual funds that manage money on behalf of clients and control more than $100 million in equity (Black, 1992; David, Bloom, & Hillman, 2007)—are powerful elements of the corporate governance landscape. For example, one institutional investor that oversees many professors' retirement plans, the Teachers Insurance and Annuity Association of America–College Retirement Equities Fund, manages more than $1 trillion of assets, and collectively institutional investors control around 70% of U.S. equities (Bebchuk, Cohen, & Hirst, 2017). Scholars have devoted extensive attention to investigating how shareholder activism by institutional investors influences a variety of firm-level actions, ranging from innovation decisions to financial misconduct (David, Hitt, & Gimeno, 2001; Goranova, Abouk, Nystrom, & Soofi, 2017; Shi, Connelly, & Hoskisson, 2017; Vasudeva, Nachum, & Say, 2018). Ryan and Schneider (2002: 55, italics added) defined shareholder activism as follows:

> The use of power by an investor either to influence the processes or outcomes of a given portfolio firm *or* to evoke large-scale change in processes or outcomes across multiple firms through the symbolic targeting of one or more portfolio firms.

Past studies have focused almost exclusively on the former—targeted firms.

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In response, we investigate whether and how ownership by institutional investors that have targeted firms for activism influences executive actions at *other* firms that they have *not* targeted. When investors engage in activism, it is usually directed at some subset of firms in their portfolios (Chen & Feldman, 2018). Much like speeding drivers who see a car pulled over by law enforcement might slow down to avoid being pulled over themselves, executives within firms owned by activist investors who observe those activists targeting another firm might make changes to avoid becoming the next target. To investigate this possibility, we examine what we call "portfolio spillover," which we define as the extent to which activist behavior targeted toward a firm or firms in an investor's portfolio of holdings influences actions within other firms that are not presently targeted for activism. Activism is costly. Gantchev (2013) estimated the average cost of the three common activist approaches to be $2.9 million for demand negotiations, $1.8 million for obtaining board representation, and $5.9 million for introducing a proxy context. Activist investors generally own stakes in large numbers of firms, but, given activism's high costs, they only target a small subset for activism. Accordingly, developing a more complete understanding of activism's implications requires knowing whether portfolio spillover exists and, if so, how potent its effects are.

The awareness–motivation–capability (AMC) framework (Chen, 1996; Chen, Su, & Tsai, 2007) is especially well suited to theorizing about this phenomenon because it provides an integrative platform for identifying the drivers of executives' response to a competitive threat (Upson, Ketchen, Connelly, & Ranft, 2012). We leverage the AMC framework to theorize that firms will be more likely to respond to an external threat (in our case, an activist investor targeting another member of its portfolio) when they are more *aware* of the threat. We also develop theory about boundary conditions that can shape the *capability* of activists to launch a successful campaign and the *motivation* of non-targeted firms to react. Whereas competitive dynamics scholars initially developed the theory to explain actions and responses among competitors, we leverage its concepts and tenets to theorize about how firms will react to a different kind of threat: activist investors.

To investigate responses to the threat posed by activist investors, we examine corporate-level moves among S&P 1500 companies during the period from 2000 to 2013. Specifically, we consider restructuring and growth activities, which executives could use to reduce or eliminate the external threat (Bergh & Lim, 2008; White, 2000). Consistent with our opening epigraph, we contend that, as the level of ownership of a firm by activist investors rises, wary executives will shrink the size of their firms and dial back on growth with a view toward reducing the likelihood of becoming an actual target for activism. To evaluate this prospect, we examine 10,331 restructuring actions and 80,526 growth initiatives among firms in our sample that were not targeted for activism. We also consider potential moderators of the extent to which activist behavior could be successful (i.e., capability) and the motivation of non-targeted firms to act in response to activist threat. Results from Poisson models and a quasi-natural experiment confirm the direction of causality, largely supporting our hypotheses.

We believe our study holds the potential of contributing to the literature in two main ways. First, we extend the scope of the AMC framework. Prior research on the AMC framework has focused primarily on threats from competitors (Chen & Miller, 2012; Chen et al., 2007). We extend this theoretical lens to a new context, generalizing its principles beyond its historical boundary of competitive threats to threats from activist investors. Second, scholars have devoted considerable attention to activism's influence on firm outcomes (David et al., 2001; Goranova & Ryan, 2014) and its ripple effects on competitors (Aslan & Kumar, 2016; Lee & Park, 2009). We add to this literature by developing and testing arguments about the extent to which activist behavior directed at some firms, which thus face an explicit threat, shapes actions within firms that activists have not targeted, and which thus face an implicit threat from activists. Stated simply, we are among the first to theorize about the consequences of being owned, but not specifically targeted by, activist investors. Our analyses also show that actions undertaken in response to the mere implicit threat of activism can harm firm performance, which stands in contrast to findings highlighting activism's benefits (Brav, Jiang, & Kim, 2015; Brav, Jiang, Ma, & Tian, 2018; Brav, Jiang, Partnoy, & Thomas, 2008).

Our study comes at an important time, and its findings could offer insights to a variety of audiences. There has been a radical shift relative to 10 years ago wherein activist investors have much more power and firms need to cope with that change. In 2015, for example, former Mondolez International CEO Irene Rosenfeld estimated that dealing with just one activist investor required 25% of her work time (Stoll, 2019). Our study could be helpful for boards of

directors because we uncover a phenomenon they might not even think to consider: a new reference point for CEOs (i.e., firms with common owners). Legislators and regulators also may find our study informative. These entities typically evaluate activism's consequences for its targets, but we find that a little activism (at one firm) can go a long way (among other firms). Lastly, our study offers insights to shareholders. Investors used to focus on identifying which firms would perform well. Over time, they learned to also identify firms where they could introduce change via activist endeavors. Our study suggests they might also seek to identify firms that would benefit from the same kind of change in that they can engage in activism at one firm but affect others through an implicit activism threat.

CONCEPTUAL BACKGROUND

Researchers have long sought to explain and predict the extent to which capital market investors influence strategic actions and outcomes (David et al., 2001; Eesley, Decelles, & Lenox, 2016; Hoskisson, Hitt, Johnson, & Grossman, 2002). Studies of investor influence have focused mainly on institutional investors. Because these investors control high levels of equity ownership, they have considerable influence on corporate moves (Bebchuk et al., 2017), such as innovation efforts (Hoskisson et al., 2002), acquisition decisions (Goranova, Priem, Ndofor, & Trahms, 2017), internationalization (Tihanyi, Johnson, Hoskisson, & Hitt, 2003), and the formation of strategic alliances (Connelly, Shi, Hoskisson, & Koka, 2019), among others.

From the perspective of executives, activist institutional investors (which hereinafter we abbreviate to "activist investors") have come to the fore as a powerful type of shareholder. An "activist investor" is an institution with a stated intent to bring about material change within one or more companies in its portfolio of holdings (Eesley et al., 2016). Many activist investors are known for using both public and private pressure to gain concessions (Chowdhury & Wang, 2009; Eesley et al., 2016). Some activist efforts are proxy based, meaning that an investor formally documents its demands in proxy materials sent to all shareholders. These can include proxy contests, shareholder proposals, say-on-pay demands, and demands for director representation. Activists can also use non-proxy-based activism, such as issue-specific discussions with executives and media campaigns (Denes, Karpoff, & McWilliams, 2017). The latter approach has helped turn some confrontational institutional investors, such as Carl Icahn and the late T. Boone Pickens, into business celebrities.

Firms are increasingly fearful of becoming the next target of activism (Goranova, Abouk, et al., 2017). When an activist investor engages with a firm (which is legally predicated by filing a Schedule 13D), they occupy management's attention and energy. This could come, for example, in the form of direct conversations with management and the board, open letters to the public, media campaigns, or proxy contests. According to Activist Insight (quoted in Chandler, 2019: 39), the funds devoted to activist campaigns has increased from about $50 billion in 2010 to well over $200 billion in 2018. Directing a portion of these resources toward a given firm imposes a long, expensive, and draining process on the firm's top executives.

We extend work on shareholder activism (Goranova & Ryan, 2014) by theorizing about its consequences for firms that have *not* been targeted for activism. These other firms face an implicit threat wherein the investor's attention may turn to them in the future, given that the investor has already demonstrated its willingness to target activism at firms it owns. Prior research has identified a market spillover whereby activism at one firm can affect the actions of other firms in the same market space (Aslan & Kumar, 2016; Lee & Park, 2009), regardless of whether the activist owns shares in those firms. We take a next logical step by examining portfolio spillover, which refers to the extent to which activist endeavors at one firm spill over to affect the behavior of firms that are owned by the activist (regardless of whether the firm competes in the same market space).

Market spillover and portfolio spillover have some overlap, but it is minimal. For example, data from Thomson Reuters show that activist investors typically target firms in just a few industries, but they almost always own firms in dozens of different industries. If an activist owns more than one firm in the same industry in which it engages in activism, those firms will be subject to market spillover. However, all of the firms the activist owns that compete in other industries are subject to portfolio spillover. Moreover, it is much more common for an activist investor to own firms outside of an industry where it has targeted a firm for activism than for it to own a second firm within that industry. Conceptually, market spillover suggests that executives are looking at and responding to activism in their industry, while portfolio spillover is a broader concept that suggests

executive awareness of activist endeavors extends well beyond the industry in which they compete. Thus, while market and portfolio spillover may be related concepts, portfolio spillover is a more common occurrence and describes a more wide-reaching effect of shareholder activism.

THEORY AND HYPOTHESES

When an activist investor, such as Bill Ackman (Pershing Square) or Daniel Loeb (Third Point), takes a sizeable position in a firm, executives have reason for concern (Brav, Jiang, & Kim, 2010). Such activists often draw negative attention to the management team. In fact, Paul Singer of Elliott Management has been labeled as "the most feared activist investor in the world" (Kammel & Henning, 2017). Nelson Peltz, of the Trian Partners hedge fund, summed up executives' attitudes well: "When we show up, there is no popping of champagne corks" (Gruley & McCracken, 2013).

The primary reason for executives' concern is that the changes activist investors desire often adversely affect executives' interests. For example, activists have been effective at reducing executive compensation (David, Kochhar, & Levitas, 1998; Khan, Dharwadkar, & Brandes, 2005), including an average 38% decrease in CEO pay (Ertimur, Ferri, & Muslu, 2011). Perhaps most important, though, is that activists often focus on ousting some or all of the top management team (Parrino, Sias, & Starks, 2003). Helwege, Intintoli, and Zhang (2012) found that intervention by activist institutions is frequently an instigator of forced turnover, and other studies support the notion that activists often serve as agitators for removal of the CEO (Qian, 2011).

Constrained by activist behavior's high costs, institutional investors are only able to target a limited number of firms for activism (Chen & Feldman, 2018). These investors own stakes in large numbers of firms to diversify portfolio risk. Given the strong influence of activist activities on targeted firms, we theorize that executives of non-targeted firms will view activist investor ownership as a threat. As investors that have shown themselves to be activists gain increasing shares of non-targeted firms, executives within the non-targeted firms will increasingly perceive an implicit threat. In contrast, when known activist investors lower their holdings in non-targeted firms, concerns about the implicit threat from activist investors will lessen.

To develop theory about executives' responses to the implicit threat from activist investors, we turn to the AMC framework (Chen, 1996). This theoretical framework builds on literature on social cognition (Fiske & Taylor, 2008) and organizational change (Kiesler & Sproull, 1982). It aims to identify and describe the antecedents of response to an external threat, and specifically competitive threats, which is the context within which Chen (1996) developed its tenets. AMC posits that three independent, and conceptually unique, antecedents—awareness, motivation, and capability—drive responses to competitive threats. We extend this theorizing to develop understanding of executive responses to a different, but important, external threat.

Awareness

Research on the AMC framework highlights *awareness* of a competitive threat as the first stage in understanding the likelihood of response (e.g., Chen, 1996), and this concept serves as the foundation for our main effect hypotheses. According to Smith, Ferrier, and Ndofor (2001: 320), awareness refers to "how *cognizant* a focal firm is" of a threat arising from one or more of its competitors. Research on this topic relies on proxies for awareness, such as action visibility and firm size (Miller & Chen, 1994). Chen, Su, and Tsai (2007) suggested, for example, that firms are more aware of competitive threats from large firms than threats from small firms.

Threat awareness is central to understanding firm actions within the AMC framework (Chen, 1996), but threats can be either explicit or implicit (Sinaceur & Neale, 2005). Firms will usually be well aware of an explicit threat and forced to take action in response. In fact, competitive dynamics researchers sometimes treat awareness as binary, such that firms become aware of the explicit threat of a rival's action when such action occurs (Upson et al., 2012). Implicit threats, though, are different; it remains to be seen whether the potential problem associated with the threat will become actualized. Implicit threats do not just exist or not exist, but rather they can loom large or remain as a small concern that might be worth monitoring. This is an important difference because it makes the awareness component of the AMC framework especially salient and suggests that awareness of an implicit threat resides on a spectrum from low to high.

Building on this idea, we expect executives of non-targeted firms will become progressively aware of the implicit threat imposed by activist investors as those investors own increasingly large stakes of the firm's stock (Gillan & Starks, 2007). Many activist

investors are well known in part because activist behavior attracts considerable media attention. In fact, many business press outlets, such as *Fortune*, the *Financial Times*, and *Business Insider* assemble lists of the "top" or "biggest" activist investors (Butt, 2016). Given their high public profile, when an activist investor such as Starboard Value or ValueAct Capital takes a position in a firm (without actually engaging in activism targeted toward the firm), it constitutes an implicit threat. If the activist investor holds only a small amount of stock, executives might not be overly concerned. If an activist investor were to increase its holdings, however, this would attract greater attention among executives (Romano, 2001).

Within studies grounded in the AMC framework, awareness of a competitive threat is usually followed by a competitive move aimed at the firm that instigated the threat, with a view toward neutralizing the threat (Ferrier, 2001; Smith et al., 2001). Extending this tenet, we suggest that, as executives become increasingly aware of an implicit threat, they will be more likely to take steps that have the potential to mitigate or eliminate the threat. This is important for executives of non-targeted firms with increasing levels of activist ownership, because, if they do not act quickly, they could become the next target. For instance, in late 2015, Trian Partners took a 1.5% stake in General Electric without immediately launching any activist efforts. Trian's managing director Ken Squire noted that "Trian is being cordial with, and supportive of, [CEO Jeffrey] Immelt right now . . . but they will not remain quiet indefinitely if performance does not improve" (Black & Jinks, 2015). After General Electric did not embrace Trian's recommendations, Trian turned to activism, which helped fuel Immelt's 2017 ouster and Trian gaining a seat on the board of directors (Blank, 2017).

As managers become increasingly aware of the implicit threat of activism by investors like Trian, we argue that they will proactively take actions to alleviate the threat. One avenue is seeking to improve efficiency by making firms smaller. They can accomplish this with restructuring efforts. Scholars broadly classify "restructuring" into portfolio restructuring and organizational restructuring (Bowman & Singh, 1993). "Portfolio restructuring" involves altering the makeup of businesses in which a firm competes to narrow the scope of operations. One way a firm can restructure is through divestitures, which occur when the company sells a business unit, usually dropping its assets, facilities, product lines, and subsidiaries (Bergh, Johnson, & Dewitt, 2008). A related form of portfolio restructuring is corporate spin-offs and sell-offs, which are essentially divestitures where a separate entity is created (Corley & Gioia, 2004). In a spin-off, the parent company distributes shares of a subsidiary to its existing shareholders on a pro rata basis, usually in the form of a special dividend. In a sell-off, shareholders have to choose between holding shares of the subsidiary or the parent company (Bergh et al., 2008).

"Organizational restructuring" describes the processes of downsizing and reorganizing. Downsizing is a form of restructuring focused on reducing personnel. The chief role of downsizing is to remove the presumed "fat" within an organization, which hopefully will reduce waste and lead to a more productive allocation of resources (Nixon, Hitt, Lee, & Jeong, 2004). Reorganization engenders major changes to organizational design, such as flattening hierarchies or redrawing divisional boundaries (DeWitt, 1998). Reorganizing allows managers to adapt to changing market conditions and ensure that organizational structures are aligned with the demands of a shifted environment (Girod & Whittington, 2017).

Scholars often investigate these four actions—divestitures, spin- or sell-offs, downsizing, and reorganization—together as restructuring, or refocusing, activities (Brauer, 2006; Johnson, 1996). Restructuring can pacify activist investors because they are on the lookout for unprofitable business units and corporate inefficiencies (David et al., 2001). Activists seek out problem areas within a firm such that, if the inefficiency is removed, the firm can quickly unlock hidden value. For example, activist investor Daniel Loeb took out a large stake in Dow Chemical in 2014 and subsequently "criticized the firm for hanging on to clunky, low-margin bulk chemical businesses" (McAuley, 2014). Similarly, shortly after Elliott Management bought an 8% stake in the Advisory Board Company, the company announced restructuring plans to exit some of its businesses and reduce about 6% of its workforce (Heath, 2017). Overall, activist investors view restructuring as a means to earn profits: they invest, advocate for structural change, and hope to quickly exit once the firm's stock price reflects the improvements made via restructuring (Denes et al., 2017).

Restructuring, therefore, makes sense as a preemptive move for fending off the implicit threat from activist investors and guarding against becoming a target. When executives engage in restructuring of their own accord, activists may be less likely to target

the firm because the hidden value has already been released via restructuring. Voluntary restructuring thus could be a useful mechanism for preventing activism when executives believe their firms could become a target. We, therefore, contend that, as executives become aware of a growing threat in the form of activist ownership, restructuring is not certain, but it is more likely, to occur. Stated formally:

Hypothesis 1. The level of ownership by activist investors who have not yet targeted a firm for activism is positively associated with the firm's restructuring activities.

Reducing growth activity is a second possible response (Kim, Haleblian, & Finkelstein, 2011; McKelvie & Wiklund, 2010). If managers want to reduce their focus on growth, there is a variety of types of actions on which they could cut back. One is eliminating expansion of existing businesses so that they are not producing more of their established offerings. Alternatively, managers may wish to dial back on new product development so they are not focusing on new products and services (Li, Maggitti, Smith, Tesluk, & Katila, 2013). Firms could also reduce their acquisitiveness. Although acquisitions allow a company to grow quickly, they also introduce a host of long-term issues surrounding implementation, integration, and trying to create synergy (Hoskisson et al., 2002; Shi, Zhang, & Hoskisson, 2017). Lastly, managers seeking to reduce their emphasis on growth activity could restrict the formation of new strategic alliances. Actions such as business expansion, new product development, acquisitions, and strategic alliances constitute different forms of growth activity that managers facing activist investors might limit or reduce with a view toward keeping potential activist behavior at bay.

Activist investors could frown upon new growth initiatives initiated by a management team they believe is underperforming and is not extracting the full value of a firm's resources (Holcomb, Holmes, & Connelly, 2009). These investors believe their own views about how executives should run the firm, or actions the firm should or should not take, are superior to management's views (Connelly, Hoskisson, Tihanyi, & Certo, 2010). If executives double down on their current strategy with growth moves, they could irk activist investors, prompting them to attempt to prevent the firm from going down what they believe is a wrong path. If firms possess excess cash, activist investors are more likely to pressure firms to buy back shares and issue dividends than to pursue growth activity as investors receive direct returns from buybacks and dividends (George & Lorsch, 2014).

Like restructuring, reducing growth activity often is an appropriate response to the implicit threat of activist investor ownership, because doing so reduces strain on organizational resources and temporarily increases efficiency (Shi, Connelly, & Cirik, 2018). Unlike long-term investors, activist investors seldom have interest in owning firms that make growth investments with long-term payouts (Wahal & McConnell, 2000) because such actions are often accompanied by short-term setbacks, which activist investors do not tolerate (Connelly, Tihanyi, Certo, & Hitt, 2010). For example, a firm might experience a short-term stock price reduction after announcing an acquisition, even though the acquisition could put it in a better position to compete in the years ahead (Capron, 1999). Dialing back on growth activity, on the other hand, could be exactly what activist investors want to see their portfolio firms doing, because reducing growth initiatives allows executives to devote greater time, attention, and resources to short-term value creation (Aghion, Van Reenen, & Zingales, 2013). In sum, we theorize that executives facing high levels of ownership by activist investors will be likely to reduce growth with a view toward keeping activist behavior at bay.

Hypothesis 2. The level of ownership by activist investors who have not yet targeted a firm for activism is negatively associated with the firm's growth activity.

Motivation and Capability

To examine important contingencies that might influence the strength of the relationship between awareness of a threat and responses to that threat, the AMC framework directs attention to its second and third components—motivation and capability. In Chen's (1996) original formulation, the AMC framework contends that a firm's response to a competitive threat is shaped by the extent to which the firm is aware of the threat, motivated to respond, and capable of responding. In that formulation, all three dimensions refer to a focal firm that faces a threat.

However, it is important to recognize that, in Chen's (1996) work and subsequent competitive dynamics studies leveraging the AMC framework (Haleblian, McNamara, Kolev, & Dykes, 2012; Ndofor, Sirmon, & He, 2011), the "threat" under investigation is a competitive attack by a rival firm. It is not the danger of a possible future attack, but rather the threat that a firm might lose market share because

of an attack that actually occurred. As a result, this work mainly examines observable indicators of specific competitive actions (i.e., the attack) and the likelihood and speed of responses (Ferrier, 2001; Uhlenbruck, Hughes-Morgan, Hitt, Ferrier, & Brymer, 2017).

Chen, Su, and Tsai (2007: 104) also worked within the competitive dynamics arena, but a key difference is that, instead of examining responses to specific actions, they considered "pre-battle competitor analysis," wherein a focal firm assesses the threat posed by its set of rivals. Although these authors were still concerned with dyads of firms, they considered a rival's collective set of possible competitive actions, not individual moves. Because firms are responding not to specific actions but rather to "perceived tension" with the rival, Chen, Su, and Tsai (2007) extended the AMC framework to examine the motivation and capability of the *external threat* (i.e., a rival) to attack a focal firm. Whereas awareness pertains to the focal firm, consistent with Chen's (1996) original formulation, examining the threat of future action (i.e., perceived tension) changes the focus of the theory so that the focal firm's motivation to react hinges on the capability of the source of the threat.

In our research context, we extend the AMC perspective such that, instead of the collective actions of a single threat, we consider the potential actions of a collective threat. Specifically, we examine all activist investors that own stakes in a focal firm and the threat that one or more of them might target the firm with activist behavior. In doing so, our application of the AMC framework is more akin to Chen, Su, and Tsai (2007) than it is to Chen (1996) because we are focused on the threat of potential activism (similar to the competitive tension construct) as opposed to action–response dyads. We identify two boundary conditions that shape activist investors' capability to attack as well as focal firms' motivation to react. When activist investors' capability to attack is weak, firms will not have a strong motivation to adjust their corporate-level actions, even if firms are aware of the implicit threat from activists.

The first boundary condition pertains to constitutional constraints on shareholder control (Bebchuk, 2005; Gompers, Ishii, & Metrick, 2003). These constraints are firm-level structural characteristics that limit the control shareholders, including activist investors, could potentially have over firms (Mahoney, Sundaramurthy, & Mahoney, 1997). One constraint is a staggered board of directors, otherwise known as a "classified board." This structure limits shareholder influence by guarding against wholesale changes being made to board membership in response to shareholder demands (Bebchuk & Cohen, 2005; Guo, Kruse, & Nohel, 2008). Other constitutional constraints involve rules on shareholder voting, such as supermajority voting requirements for bylaw amendments and changes to the organizational charter (Gompers, Ishii, & Metrick, 2010; Smart, Thirumalai, & Zutter, 2008). Lastly, some firms' charters do not require shareholder approval for major firm actions such as acquisitions; this also constrains shareholder influence. Scholars often study these governance provisions collectively under the banner of constitutional constraints on shareholder control (Connelly, Shi, & Zyung, 2017; Datta & Iskandar-Datta, 1996).

If a high level of constitutional constraints is in place, activist investors' capability to impose their will on firms can be attenuated because these constraints make it difficult for activists to seek control of the firm through hostile takeovers (Ambrose & Megginson, 1992; Kacperczyk, 2009). As strong constitutional constraints shield firms from the implicit threat from activist investors, those firms have weak motivation to react, even if they are aware of the implicit threat (reflected by a high level of activist ownership). When there is a low level of constitutional constraints on shareholder control, however, activist investors will be able to launch a credible threat of seeking corporate control. Thus, we expect that constitutional constraints are a moderator of the effects of activist ownership on managerial responses. When constraints are strong, increasing levels of activist ownership may not affect restructuring or growth initiatives because activist investors lack the capability to launch credible attacks, and firms will not be motivated to respond. When constraints are weak, though, the relationships described in Hypotheses 1 and 2 are present because activist investors pose a credible threat to firms, and firms are motivated to respond.

Hypothesis 3a. Constitutional limits on shareholder control moderate the positive relationship between ownership by activist investors who have not yet targeted a firm for activism and corporate restructuring. The relationship is stronger when firms have weak (i.e., low levels of) constitutional limits.

Hypothesis 3b. Constitutional limits on shareholder control moderate the negative relationship between ownership by activist investors who have not yet targeted a firm for activism and growth activity. The relationship is stronger when firms have weak (i.e., low levels of) constitutional limits.

An activist investor's capability to engage in a successful activist campaign is determined in large part by *who else* owns shares of the firm (Dharwadkar, Goranova, Brandes, & Khan, 2008). Even the most powerful activist investors do not represent a large enough ownership base, by themselves, to enforce their demands. Activist investors become more intimidating, though, when other investors who are willing to follow activists' lead also increase holdings in the firm (Connelly et al., 2019). In support of this notion, Appel, Gormley, and Keim (2019) found that the amount of a firm's stock that is held by passively managed mutual funds is positively related to the likelihood that activist owners will seek—and acquire—board seats, the number of proxy fights and legal settlements, and the likelihood of the targeted company being sold. We, therefore, theorize about a group of investors that is most likely to align themselves with an activist, and are thus consequential to activists' capability to engage successfully in activist behavior: transactional institutional investors.

Following work that classifies institutional investors based on their trading behavior (Bushee, 2004; Connelly, Tihanyi, Ketchen, Carnes, & Ferrier, 2017; Shi et al., 2017), we define "transactional institutional investors" mainly by what they do not do, rather than what they do. Specifically, they do not engage in relational governance (Zheng, Roehrich, & Lewis, 2008). Porter (1992) described what he called "dedicated investors" as those who have deep knowledge about firms in which they invest. Sometimes called "high-quality" investors (Higgins & Gulati, 2006), dedicated investors make investment decisions based on firms' long-term strategies and objectives (Connelly, Tihanyi, et al., 2010). Bushee (1998) quantified this category of institutional investors, suggesting they hold concentrated shareholdings in just a few firms, are not sensitive to quarterly earnings reports, and do not frequently turn over their portfolio of holdings. Transactional investors, on the other hand, fail to meet these criteria on one or more dimensions. Bushee (1998) labeled them as either "transient" or "quasi-index" institutional investors, because they typically hold stocks in a large number of companies. It is difficult if not impossible for these investors to have in-depth knowledge about their portfolio firms' operations (Dikolli, Kulp, & Sedatole, 2009; Ke & Ramalingegowda, 2005).

Transactional investors are prone to herding behaviors in their trading strategies, and are thus likely to follow the lead of activist investors (Hirshleifer & Teoh, 2003). Transactional investors are oriented toward an emphasis on transactions in which "short-term arbitrage" is possible (Hoskisson et al., 2002: 701). Because transactional investors rely on arm's-length trading strategies, they generally do not seek to unlock hidden value (Gillan & Starks, 2007). Generally, these investors are not familiar enough with firms in their portfolio to even know what changes they should demand (Colpan, Yoshikawa, Hikino, & Del Brio, 2011; Zeitoun & Pamini, 2015) because they invest in thousands of firms and trade frequently in and out of those firms. These investors may be willing, though, to get behind other investors who pressure executives to unlock shareholder value (Chen, Harford, & Li, 2007). As an article in *Fortune* magazine observed, "Passive shareholders tend to welcome a powerful and rational voice speaking on their behalf" (Studzinski, 2014).

Transactional ownership serves as a moderator of our main effect relationships because it can change activist investors' capability to launch a credible attack, and thereby change firms' motivation to respond. When transactional ownership is low, activist investors are less able to implement activist behavior successfully. In these scenarios, even though executives may be aware of the presence of activist investors, they will feel less motivated to respond. When transactional ownership is high, it bolsters activist investors' capability of launching a successful activist campaign because transactional investors are likely to support it. In other words, the threat of activist ownership is exacerbated when transactional ownership is high because the presence of transactional owners strengthens activist investors' capability to launch a successful attack, thus escalating the implicit threat from activist investors. When awareness of a threat and capability of the source of the threat are both high, executives will be highly motivated to engage in more corporate restructuring and fewer growth initiatives as a way to keep activist investors from targeting their firm.

Hypothesis 4a. Transactional investor ownership moderates the positive relationship between ownership by activist investors who have not yet targeted a firm for activism and corporate restructuring. The relationship is stronger when transactional ownership is high.

Hypothesis 4b. Transactional investor ownership moderates the negative relationship between ownership by activist investors who have not yet targeted a firm for activism and growth activity. The relationship is stronger when transactional ownership is high.

METHODS

We tested our hypotheses using a longitudinal data set covering the years 2000 to 2013. Our sample selection began with all firms covered by ExecuComp, which provides detailed compensation information on the top executives of firms belonging to the Standard & Poor's (S&P) 1500 index. We identified shareholder activism based on the Audit Analytics Investor Activism database. Firm financial and accounting data are from S&P Compustat, institutional investor ownership data are from the Thomson Reuter 13(F) database, corporate-level action data are from Capital IQ Key Development, and governance data are from BoardEx. Data on takeover defense provisions were obtained from Institutional Shareholder Services' Governance.

During the years under investigation, activist investors targeted around 7% of our initial sample firms. We were theorizing about the influence of activism on firms that are in the portfolio of holdings of an activist investor, but have not been targeted for activism, which amounts to 1,861 firms in our sample. To avoid losing information, our analysis also included firms that were not in the portfolio of any activist investor—an additional 45 firms. By definition, the level of activist investor ownership for these firms was zero. Our results are substantively the same whether our analysis included or excluded these 45 firms.

Independent Variable

Our independent variable was the level of ownership by activist investors who have not yet targeted a firm for activism. Consistent with our theoretical rationale, we examined institutional investors, which constitute the majority of shareholders in the U.S. equity market, and not private investors or corporate owners.

To measure activist ownership, we first identified investors that had engaged in activism. We followed existing research (Brav et al., 2015; Brav et al., 2008) to identify shareholder activism events based on investor filings of Schedule 13D and 13D/A amendments; documents that are often referred to as "beneficial ownership reports." Section 13D of the 1934 Exchange Act requires that investors must file with the Security Exchange Commission (SEC) within 10 days of acquiring more than 5% of any class of securities if they have an interest in influencing management of the company. Shareholders who have no intention of targeting a firm for activism may file a Schedule 13G, which is less stringent, requires less information, and is much preferred by passive investors. A shareholder having initially filed a 13G must subsequently file a 13D if it wishes to target a firm for activism.

Although Schedule 13D filings are designed to reveal investor intentions to be involved with executives, not all such filings necessarily reveal planned intervention by an investor. For example, shareholders can file a Schedule 13D to indicate their plans to finance a distressed company. Given that our focus was on how executives respond to the threat of intervention, we limited our investigation only to those Schedule 13D filings in which the investor's stated purpose pertained to (a) concerns, (b) disputes, or (c) control, as described in the Audit Analytics database. "Concerns" include concerns about stock price, demands for information from management, opposing a future acquisition, and suggestions to management about strategy. "Disputes" consist of allegations about misleading management, disagreements with management actions, disputes with management, and litigation. "Control" includes such issues as intent to acquire control of the company, intent to change or nominate individuals to the board of directors, and intent to replace management.

We considered all investors who have, within the past year, filed a Schedule 13D (or 13D/A) related to concerns, dispute, or control at any firm to be activist investors (Brav et al., 2008). Of the over 5,000 institutional investors that owned shares of firms in our sample, only 119 of these were activist investors. Because this was such a small number of investors, who usually have a highly visible public profile, executives would have known their level of stockholdings. We calculated *activist ownership* for a focal firm as the ratio of shares held by activist investors to total shares outstanding for each year in our sample. The mean level of activist investor ownership across all observations in our sample was 2% with a standard deviation of 3% and a maximum of 15%.

Dependent Variables

We had two dependent variables: the number of *restructuring* and *growth* actions. We collected announcements on restructuring and growth actions from the Capital IQ Key Development database. Capital IQ collects information on events that can affect securities' market value from over 20,000 news sources as well as regulatory filings and company websites. There were a total of 10,331 restructuring

announcements across all sample firms during our focal years.

We measured the number of restructuring actions as the summated number of announcements about businesses seeking to sell or divest a business unit (e.g., Liberty Media offering its On Command unit for sale), spin-offs or split-offs (e.g., U.S. Bancorp planning to spin off Piper Jaffray companies), discontinued operations or downsizings (e.g., Kimberly-Clark planning to close a plant), and reorganizations (e.g., Kraft Foods announcing plans to reorganize its European operations) for each firm in a given year. Around 16% of observations in our sample had one restructuring action announcement and another 16% had more than one. Because a large number of observations had zero restructuring actions, we also considered this dependent variable using a binary approach wherein 32% of observations were coded "1" for "restructuring occurred" and the remainder were "0." Results were substantively the same across the two measurement approaches.

We measured the number of growth actions as the summated number of announcements about mergers and acquisitions (e.g., Wachovia signing a definitive agreement to acquire Golden West Financial), new product introductions (e.g., Sun Microsystems announcing Sun N1 Advanced Architecture), business expansions (e.g., Google opening its first Polish office), and new strategic alliances (e.g., Cummins and KAMAZ announcing a joint venture agreement) for each firm in a given year. There were a total of 80,526 total growth actions in our sample. Around 17% of our observations had one growth action and over 57% had more than one.

Moderators

We examined two possible moderators of our main effects. Our first moderator was constitutional constraints on shareholder control. Bebchuk, Cohen, and Ferrell (2009) suggested that four *constitutional limit provisions* are most critical to executives: staggered boards, a supermajority requirement to amend the charter, a supermajority requirement to approve a merger, and a supermajority requirement to amend a bylaw. Following Connelly, Shi, and Zyung (2017), we used the sum of these four provisions. Each observation therefore received a score ranging from 0 to 4.

To measure *transactional institutional ownership*, we followed (Bushee, 1998, 2001) by first classifying institutional investors (Cannella, Jones, & Withers, 2015; Connelly, Tihanyi, et al., 2010; Higgins & Gulati, 2006; Shi, Connelly, & Hoskisson, 2017). We first calculated each investor's ownership stability and stake size using data on portfolio holdings. The stability measure was based on quarterly portfolio turnover (i.e., the total market value of sales during the quarter divided by the total market value of the portfolio at the beginning of the quarter) and the percentage of the institution's portfolio stocks that had been held continuously for the past two years. Stake size was the percentage of the portfolio stocks in large block holdings. Then, cluster analyses were applied to form three groups of institutions based on where they ranked on ownership stability and stake size. Dedicated institutions, which some have called "high-quality" investors that use "relational governance," have highly stable ownership and large stakes (Higgins & Gulati, 2006). Institutional investors that do not meet these criteria are "transactional," because their small stakes or less stable ownership positions do not facilitate relational governance. Transactional investors include those that Bushee (1998) labeled as "transient" and "quasi-indexer." These investors are more likely to follow the actions of activist investors than dedicated institutional investors, as the former tend not to engage in relational investing. After categorizing all investors, we then calculated this variable as a percent, measured as transactional investor shareholdings divided by total shares outstanding.

Control Variables

We controlled for a number of organizational variables that could affect our focal relationships. Large firms may undertake intensive corporate actions, so we controlled for *firm size* using the natural logarithm of total assets (Hitt, Hoskisson, Johnson, & Moesel, 1996). Firms enjoying good performance may not feel the need to improve efficiency through restructuring and may have more resources to pursue growth actions, so we controlled for *firm performance* using return on equity (ROE). Firms with high debt face pressure to consolidate existing businesses and refrain from growth activities, so we controlled for *debt ratio* using the ratio of summated long-term debt and debt in current liabilities to book assets. Firms with high levels of cash may have weak motivation to undertake restructuring (Bowman & Singh, 1993) but more resources to pursue growth actions, so we controlled for *cash holding ratio* as the ratio of cash and cash equivalents to total assets. Because highly diversified firms have more opportunities to engage in restructuring and pursue growth actions, we

controlled for *total diversification* by adding two components of an entropy measure: related and unrelated diversification (Hoskisson & Turk, 1990). "Unrelated" refers to diversification arising from business units that operate in different two-digit Standard Industrial Classification (SIC) industry groups, with total firm assets as the reference. "Related" refers to diversification arising from business units that operate in the same two-digit SIC industry group (Hoskisson, Hitt, Johnson, & Moesel, 1993).

Given our focus on shareholder influence, we also controlled for a number of governance-related variables. We controlled for *board independence* as the percent of independent directors (Hoskisson, Johnson, & Moesel, 1994). Because we examined constitutional limits to shareholder control as a potential moderator, we controlled for other governance provisions in the form of takeover contingencies. These are a separate entity from our moderator because they do not take effect unless the firm is bought and are not part of the firm's constitution (Connelly et al., 2017). We controlled for *takeover contingency provisions*, which was "2" if the firm had golden parachute and poison pill provisions, "1" if they had either one, and "0" if they had neither. We controlled for *CEO duality* and *tenure* because CEOs who are also the board chair and who have long tenure may be entrenched and thus less sensitive to the threat of shareholder activism. *CEO equity ownership* was a ratio of managerial to total ownership and *CEO option pay ratio* was the ratio of the value of annual option pay to total compensation (Shi, Connelly, & Sanders, 2016). We included *transactional institutional ownership* as a control, as such investors may impose short-term pressure on firms to focus on restructuring actions and avoid growth actions. We also controlled for *ownership concentration* using a Herfindahl–Hirschman index to account for the extent to which ownership is clustered among a subset of investors.

Finally, because general economic conditions may influence corporate restructuring and growth actions, we controlled for *year* fixed effects in all models. Our dependent variables were measured at time $t + 1$ and all other variables were measured at time t. In Table 1, we report descriptive statistics and correlations for all variables used in this study.

MODELS AND RESULTS

We used a sample of firms not targeted for activism to test our arguments. It is possible that non-targeted firms and targeted firms differ from each other in other ways, and such differences could affect our dependent variables. To mitigate potential sample selection bias, we implemented Heckman selection models (Heckman, 1979). In a first-stage probit regression, we estimated whether a firm had been targeted by activist institutional investors. We then calculated the inverse Mills ratio based on the first-stage regression result and controlled for it in second-stage regressions. In the first-stage probit regression, we included all S&P 1500 firms, and the dependent variable received a value of "1" if a firm was a target of activism during our sample period and "0" otherwise. We included all the control variables used in predicting restructuring and growth actions as independent variables. In addition, we controlled for year fixed-effects and one-digit SIC industry fixed-effects. We did not control for two- or three-digit SIC codes because some industries have no shareholder activism and controlling for finer-grained industry fixed-effects would result in losing a large number of observations.

Furthermore, we included the percentage of firms that were targets of shareholder activism in the same metropolitan statistical area (MSA) as an exclusion restriction (*MSA activism target percent*). Given that shareholder activism entails high costs (Gantchev, 2013), activist investors may target firms in the same MSA to reduce potential communication and transportation costs. At the same time, the percentage of firms targeted for activism in the same MSA should not have a direct influence on a firm's restructuring and growth actions. In unreported results, we found that *MSA activism target percent* is not significantly related to the number of restructuring actions ($p = .340$) or the number of growth actions ($p = .831$), implying that our exclusion restriction may have met the exogeneity criterion.

The dependent variables for Hypotheses 1 and 2 are the number of restructuring and growth actions, which are count variables. We used firm fixed-effects regressions that capture how within-firm changes in activist ownership relate to these activities. Firm fixed-effects regressions mitigate endogeneity concerns arising from time-invariant firm heterogeneity (Certo & Semadeni, 2006). Given that we investigate count variables, we used firm fixed-effects Poisson models to test our hypotheses (Allison & Waterman, 2002). These models do not account for firms that have a time-invariant dependent variable, leaving 1,267 firms that engaged in restructuring actions and 1,715 firms that engaged in growth actions during our sampling window. In Table 2, we report the results used to test Hypotheses 1 and 2.

TABLE 1
Descriptive Statistics and Correlations

	Variable	Mean	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Number of restructuring actions	0.71	1.38	1.0																
2	Number of growth actions	5.50	8.57	.33	1.0															
3	Activist ownership	0.02	0.03	.01	−.06	1.0														
4	Transactional ownership	0.65	0.24	−.12	−.02	.07	1.0													
5	Constitutional limit provisions	1.46	1.05	.01	−.09	.11	.12	1.0												
6	Firm size (Log)	7.86	1.59	.40	.30	−.08	−.11	−.01	1.0											
7	ROE	0.23	0.43	.05	.00	−.03	.03	−.02	.12	1.0										
8	Debt ratio	0.22	0.18	.07	−.10	.02	−.09	.00	.28	.09	1.0									
9	Cash holding ratio	0.15	0.16	−.09	.22	−.01	.08	−.08	−.32	−.08	−.38	1.0								
10	Total diversification	0.60	0.63	.18	−.05	.01	−.09	.05	.29	.03	.14	−.28	1.0							
11	Board independence	0.67	0.13	−.03	−.09	−.04	.06	.05	−.05	−.01	.04	−.09	.05	1.0						
12	Takeover contingency provisions	1.09	0.70	−.04	−.07	.04	.07	.01	−.07	−.02	.07	−.07	.05	.04	1.0					
13	CEO duality	0.59	0.49	.07	.00	−.02	−.05	−.01	.13	.02	.06	−.07	.09	−.09	.06	1.0				
14	CEO tenure	7.17	7.58	−.11	−.04	−.04	−.02	−.02	−.10	−.03	−.06	.10	−.05	−.08	−.13	.28	1.0			
15	CEO equity ownership	0.02	0.05	−.08	−.04	−.02	−.15	−.02	−.18	−.02	−.12	.11	−.05	−.10	−.20	.16	.42	1.0		
16	CEO option pay ratio	0.25	0.26	.08	.16	−.04	−.02	−.09	.04	−.01	−.07	.14	−.04	−.17	.12	.05	−.08	−.11	1.0	
17	Ownership concentration	0.05	0.03	−.08	−.10	.09	.07	−.05	−.23	−.06	.00	.04	−.06	.03	−.04	−.03	.02	.08	−.05	1.0

Note: Absolute values of correlations greater than .01 are statistically significant at the $p < .05$ level.

TABLE 2
Activist Ownership and Corporate Restructuring and Growth Actions

	Model 1	Model 2	Model 3	Model 4	Model 5
	Probit	Fixed-Effects Poisson			
Variables	Target	Restructuring		Growth	
Activist ownership			1.533**		−1.042***
			[0.665]		[0.335]
Firm size	−0.053*	0.562***	0.567***	0.127***	0.126***
	[0.030]	[0.062]	[0.062]	[0.032]	[0.032]
ROE	−0.030	−0.035	−0.033	0.023	0.022
	[0.048]	[0.031]	[0.031]	[0.020]	[0.020]
Debt ratio	0.386*	0.175	0.166	−0.349***	−0.349***
	[0.198]	[0.203]	[0.204]	[0.102]	[0.101]
Cash holding ratio	0.027	−0.625**	−0.626**	0.085	0.088
	[0.245]	[0.265]	[0.266]	[0.103]	[0.102]
Total diversification	−0.094	0.221***	0.222***	0.037	0.037
	[0.071]	[0.050]	[0.050]	[0.032]	[0.032]
Board independence	0.665**	−0.250	−0.227	0.394**	0.391**
	[0.281]	[0.242]	[0.243]	[0.156]	[0.154]
Takeover contingency provisions	0.082	0.041	0.043	−0.016	−0.016
	[0.058]	[0.037]	[0.037]	[0.020]	[0.019]
CEO duality	−0.022	0.036	0.035	0.026	0.025
	[0.077]	[0.042]	[0.042]	[0.025]	[0.025]
CEO tenure	0.013**	−0.005	−0.005	0.003	0.003
	[0.006]	[0.004]	[0.004]	[0.002]	[0.002]
CEO equity ownership	−4.304***	1.969*	2.004**	−0.085	−0.127
	[1.206]	[1.011]	[1.012]	[0.663]	[0.654]
CEO option pay ratio	0.271**	0.058	0.065	0.062	0.062
	[0.113]	[0.083]	[0.084]	[0.041]	[0.040]
Transactional institutional ownership	−0.146	−0.397***	−0.393***	−0.016	−0.027
	[0.178]	[0.146]	[0.146]	[0.087]	[0.087]
Ownership concentration	1.569*	2.088**	1.926**	0.138	0.250
	[0.874]	[0.937]	[0.943]	[0.790]	[0.784]
MSA activism target percent	4.826***				
	[0.649]				
Inverse Mills ratio		−0.161	−0.150	−0.033	−0.032
		[0.172]	[0.173]	[0.104]	[0.104]
Constant	−1.553**				
	[0.780]				
Industry FE	YES				
Year FE	YES	YES	YES	YES	YES
Firm FE		YES	YES	YES	YES
Observations	15,764	11,393	11,393	14,195	14,195
χ^2	158.9	520.9	533.2	990.1	1001
Log-likelihood	−4472	−9769	−9764	−25322	−25308

Note: Robust standard errors reported in brackets. Two-tailed tests:
* $p < .10$
** $p < .05$
*** $p < .01$

Model 1 presents results of the first-stage probit regression. The coefficient estimate for *MSA activism target percent* is positive and statistically significant ($\beta = 4.826$, $p < .01$), consistent with our argument. In Hypothesis 1, we consider the influence of activist ownership on the number of restructuring actions. In Model 2, we begin with our control variables. Consistent with expectations, the coefficient estimates for *Firm size*, *Total diversification*, and *Ownership Concentration* are positive and statistically significant, whereas *Cash holding ratio* is negative and significant. The coefficient

estimate for *Transactional institutional ownership* is negative and significant, indicating there is a direct effect for this variable that will later serve as a moderator. In Model 3, we introduce the independent variable, and the coefficient estimate for *Activist ownership* is positive and significant ($\beta = 1.533$, $p < .05$), supporting Hypothesis 1. When activist ownership increases from zero to its mean plus one standard deviation, the number of restructuring actions increases 7.9%.[1]

Hypothesis 2 investigates the influence of activist ownership on the number of growth actions. In Model 4, we again begin with the control variables. Consistent with expectations, the coefficient estimate for *Firm size* is positive and statistically significant and the coefficient estimate for *Debt ratio* is negative and significant. The coefficient estimate for *Board independence* is positive and significant, which is the opposite of expectations. This could be due in part to range restriction, given that most boards in recent years have no insiders other than the CEO (Zorn, Shropshire, Martin, Combs, & Ketchen, 2017). In Model 5, we introduce the independent variable, and the coefficient estimate for *Activist ownership* is negative and significant ($\beta = -1.042$, $p < .01$), supporting Hypothesis 2. When activist ownership increases from zero to its mean plus one standard deviation, the number of growth actions decreases 5.0%.

Hypotheses 3a and 3b investigate the potential moderating influence of constitutional constraints on shareholder control. We do not test this using interaction terms (i.e., multiplying the predictor by the moderator), in part because the variance over time for this moderator is small. Only 25% of our observations experienced a change in the number of constitutional limit provisions during our sample period. Our firm fixed-effects analyses, therefore, could underestimate their effect. Second, firms may adopt constitutional limit provisions specifically because they face activist investors. To account for these characteristics of our data, we tested Hypotheses 3a and 3b based on subgroup analyses using a median split. We used the median (and, alternatively, mean) number of constitutional limit provisions across all firms in our sample at the beginning of our sample period. Doing so avoids a possible confounding influence wherein activist investors might lead firms to adopt constitutional limit provisions, which could bias our results. The median number of constitutional limit provisions is 2.0 and the mean is 1.5.

The number of restructuring actions is the dependent variable in Models 1 and 2 of Table 3. In Model 3, we present results using all observations wherein firms have a low level of constitutional limit provisions (i.e., zero or one). The coefficient estimate for *Activist ownership* is positive and statistically significant ($\beta = 1.801$, $p < .05$). The number of restructuring actions increases 9.4% as activist ownership increases from zero to its mean plus one standard deviation. The magnitude using the subsample is larger than the magnitude using the whole sample (9.4% versus 7.9%). In Model 2, we present results using all observations wherein firms have a high level of constitutional limit provisions (i.e., two or more). The coefficient estimate for *Activist ownership* is not significant ($\beta = 0.743$, *ns*). We followed the Penner-Hahn and Shaver (2005) approach to test the moderating effect of constitutional constraints. The marginal effect of activist ownership for the low constraint subgroup is 1.55 ($p < .01$), and, for the high constraint subgroup, it is 0.59 ($p = .418$). A *t* test shows that these effects differ ($p < .01$), supporting Hypothesis 3a.

The number of growth actions is the dependent variable in Models 3 and 4 of Table 3. In Model 3, we present results for the subsample with a low level of constitutional limit provisions. The coefficient estimate for *Activist ownership* is negative and statistically significant ($\beta = -1.188$, $p < .01$). In terms of economic magnitude, the number of growth actions decreases 6% when activist ownership increases from zero to its mean plus one standard deviation. The magnitude using this subsample is slightly larger than the magnitude using the whole sample (6% versus 5%). In Model 4, we present results for the subsample with a high level of constitutional limit provisions. The coefficient estimate for *Activist ownership* is not statistically significant ($\beta = -0.437$, *ns*). The marginal effect of activist ownership for the low constraint subgroup is 7.39 ($p < .01$), and, for the high constraint subgroup, it is 1.86 ($p = .318$). A *t* test shows that these effects differ ($p < .01$), consistent with our prediction in Hypothesis 3b.

In Hypotheses 4a and 4b, we theorize about the potential moderating effect of transactional institutional ownership. Here, we can use traditional

[1] Scholars (e.g., Wiersema & Bantel, 1992) typically use mean minus one and plus one standard deviation to capture a low and a high value of a variable. Because the value of mean minus one standard deviation for activist ownership is below zero, we use zero to identify the low value of activist ownership.

TABLE 3
Moderating Effects of Constitutional Limit Provisions and Transactional Ownership

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Restructuring	Restructuring	Growth	Growth	Restructuring	Growth
Variables	Low	High	Low	High		
Activist ownership	1.801**	0.743	−1.188***	−0.437	−1.687	0.048
	[0.838]	[1.195]	[0.409]	[0.694]	[1.181]	[0.568]
Activist ownership × Transactional institutional ownership					10.266***	−3.275**
					[2.798]	[1.438]
Firm size	0.545***	0.565***	0.094***	0.239***	0.563***	0.126***
	[0.075]	[0.108]	[0.035]	[0.073]	[0.062]	[0.032]
ROE	−0.041	0.015	0.025	0.006	−0.029	0.021
	[0.034]	[0.061]	[0.023]	[0.034]	[0.031]	[0.020]
Debt ratio	0.376	−0.319	−0.368***	−0.409*	0.157	−0.350***
	[0.235]	[0.399]	[0.113]	[0.227]	[0.204]	[0.101]
Cash holding ratio	−0.457	−1.196***	0.159	−0.098	−0.645**	0.089
	[0.322]	[0.436]	[0.124]	[0.196]	[0.266]	[0.102]
Total diversification	0.235***	0.243**	0.043	0.006	0.216***	0.038
	[0.057]	[0.099]	[0.039]	[0.049]	[0.050]	[0.032]
Board independence	−0.222	−0.362	0.226	0.678**	−0.182	0.387**
	[0.294]	[0.448]	[0.179]	[0.313]	[0.245]	[0.154]
Takeover contingency provisions	0.068	−0.005	−0.011	−0.004	0.046	−0.016
	[0.045]	[0.069]	[0.022]	[0.038]	[0.036]	[0.019]
CEO duality	0.070	−0.047	0.015	0.031	0.034	0.025
	[0.048]	[0.082]	[0.028]	[0.056]	[0.042]	[0.025]
CEO tenure	−0.005	−0.006	0.002	−0.002	−0.005	0.002
	[0.005]	[0.007]	[0.003]	[0.005]	[0.004]	[0.002]
CEO equity ownership	0.653	4.763***	0.029	0.242	1.897*	−0.086
	[1.219]	[1.737]	[0.776]	[1.149]	[1.006]	[0.659]
CEO option pay ratio	0.018	0.254*	0.074	−0.066	0.058	0.063
	[0.107]	[0.132]	[0.045]	[0.082]	[0.083]	[0.040]
Transactional institutional ownership	−0.510**	−0.018	−0.154	0.209	−0.387***	−0.035
	[0.200]	[0.210]	[0.103]	[0.154]	[0.147]	[0.087]
Ownership concentration	2.606**	−0.273	−0.824	2.242*	2.396***	0.114
	[1.200]	[1.406]	[0.845]	[1.241]	[0.926]	[0.795]
Inverse Mills ratio	0.054	−0.578**	−0.078	−0.003	−0.159	−0.032
	[0.247]	[0.233]	[0.119]	[0.182]	[0.172]	[0.103]
Year FE	YES	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES	YES
Observations	7,477	3,479	9,254	4,639	11,393	14,195
χ^2	393	190.4	785.6	286.5	557.7	1,022
Log-likelihood	−6,559	−2,851	−16,865	−7,225	−9,754	−25,303

Note: Robust standard errors reported in brackets. Two-tailed tests:
* $p < .10$
** $p < .05$
*** $p < .01$

moderator analyses, though a median split yields the same results. In Model 5 of Table 3, the dependent variable is the number of restructuring actions. The coefficient estimate for *Activist ownership × Transactional institutional ownership* is positive and statistically significant ($\beta = 10.266$, $p < .01$).

The coefficients of interaction terms in nonlinear models may not always represent the true interactions (Ai & Norton, 2003; Hoetker, 2007; Wiersema & Bowen, 2009). We followed King, Tomz, and Wittenberg (2000) and Zelner (2009) by using a simulation-based approach to graphically portray the interaction effect between two variables for nonlinear models (e.g., Poisson regressions). The graph generated by the simulated-based approach presents how the significance of the interaction effect varies across the full range of observations.

We first predicted the number of restructuring actions when transactional ownership takes a low value (mean minus one standard deviation) and a high value (mean plus one standard deviation). We then graphed the difference in the predicted number of restructuring actions between the low and high transactional ownership scenarios and the significance levels of those differences in Figure 1. The dotted region indicates a significance level of 95% for the difference between two levels of transactional ownership. As shown in Figure 1, transactional ownership strengthens the positive relationship between activist ownership and the number of restructuring actions when activist ownership takes a low or high value.

In Model 6, the number of growth actions is the dependent variable. Here, we find that the coefficient estimate for *Activist ownership* × *Transactional institutional ownership* is negative and statistically significant ($\beta = -3.275$, $p < .05$), consistent with Hypothesis 4b. Figure 2 depicts the difference in the predicted number of growth actions between the low and high transactional ownership scenarios at different levels of activist ownership. The dotted region indicates a significance level of 95% for the difference between two levels. As shown in Figure 2, the difference in predicted number of growth actions is significant when activist ownership takes a high value (greater than .05). This implies that transactional ownership reinforces the negative relationship between activist ownership and the number of restructuring actions when activist ownership takes a high value.

Supplementary Analyses

Results based on a quasi-natural experiment. In testing our main effect hypotheses, we measured our dependent variables at time $t + 1$ and activist ownership at time t, which partially addresses the potential for reverse causality. Nonetheless, one may be still concerned that restructuring and growth actions influence the level of activist ownership, rather than the other way around. To address this concern more directly, we drew upon a quasi-natural experiment to create an alternative independent variable. Specifically, we used closures of activist investors to generate exogenous variation in the levels of implicit threat from activist investors faced by firms in those investors' portfolio of holdings. Activist investor closure describes when an activist investor stops trading. This does not mean that they close to new investors, but rather that they literally cease operations. In the post-closure period, firms in the portfolio of holdings of these investors should experience a sudden decrease in the implicit threat from activist investors. We therefore create a dummy variable, post-closure period, which

FIGURE 1
Moderating Effect of Transactional Ownership on Restructuring Actions

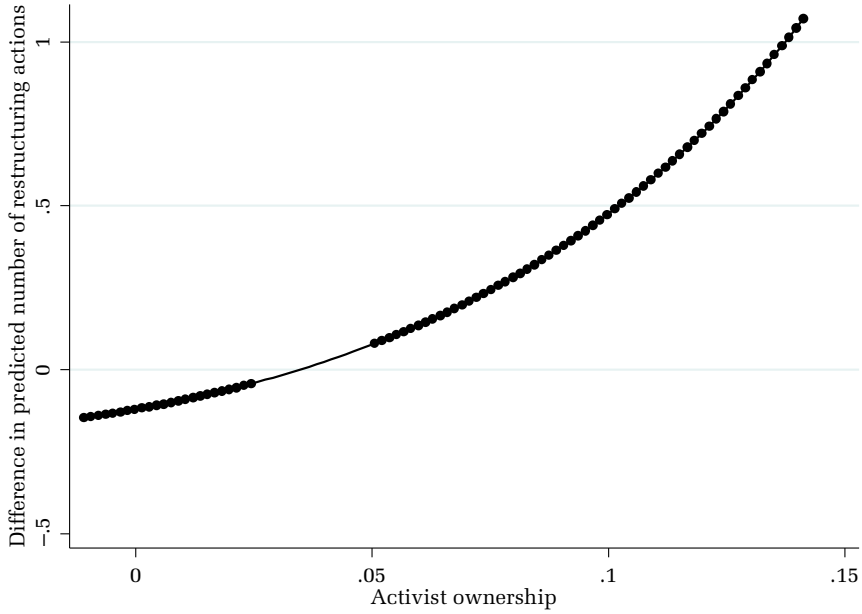
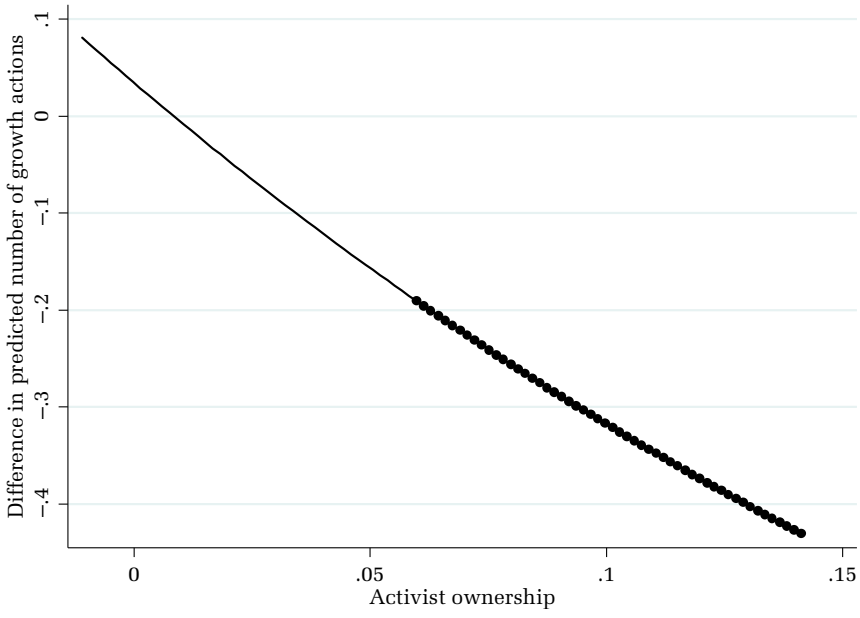


FIGURE 2
Moderating Effect of Transactional Ownership on Growth Actions



was coded "1" in the year in which an activist investor that owns shares in a firm ceases operations and in subsequent years for that firm, and it was "0" otherwise.

We present the results using this alternative independent variable in Models 1 and 2 of Table 4. In Model 1, the number of restructuring actions is the dependent variable. Here, the coefficient estimate for *Post-closure period* is negative and significant ($\beta = -0.144$, $p < .05$). This indicates that, when firms face a sudden reduced threat from activist investors, they decrease their restructuring. In Model 2, the number of growth actions is the dependent variable. The coefficient estimate for *Post-closure period* is positive and statistically significant ($\beta = 0.094$, $p < .05$), suggesting that firms increase the number of growth actions when there is a sudden reduced threat from activist investors. These findings provide additional support for our arguments.

Performance implications. If the goal of restructuring and growth actions is to mitigate the threat of shareholder activism, firms might engage in such actions without allocating adequate attention to evaluating all of the potential implications of the action (Bromley & Powell, 2012; Shi & Connelly, 2018). To examine the possibility that intensive restructuring and growth actions by firms with high levels of activist ownership might worsen, rather than improve, firm performance, we used Arellano–Bond dynamic panel regressions (Arellano & Bond, 1991). We chose this method because firm performance is path dependent, and dynamic panel regressions allowed us to account for the impact of prior firm performance on current and future performance. The fixed effects inherent to the Arellano–Bond model reduces bias from time-invariant firm heterogeneity. In addition, this model can address endogeneity issues related to the correlation of independent variables with the error term through the lagged values of the explanatory variables as instruments.

We used both an accounting and a market measure of performance. Return on assets (ROA) captures whether restructuring and growth actions help improve firm operating performance (Hitt, Hoskisson, & Kim, 1997), whereas Tobin's q reflects investors' perceptions of firm value (Chung & Jo, 1996). We report results from the Arellano–Bond model with these different performance measures in Models 3 to 6 of Table 4. The dependent variable in Models 3 and 4 is ROA. In Model 3, the coefficient estimate for *Activist ownership* × *Restructuring actions* is negative and marginally significant ($\beta = -0.015$, $p < .10$, two-tailed test). In Model 4, the coefficient estimate for *Activist ownership* × *Growth actions* is not significant. The dependent variable in Models 5 and 6 is

TABLE 4
Supplementary Analyses

Variables	Model 1 Restructuring	Model 2 Growth	Model 3 ROA	Model 4 ROA	Model 5 Tobin's q	Model 6 Tobin's q
Post-closure period	−0.144**	0.094**				
	[0.073]	[0.043]				
Activist ownership × Restructuring actions			−0.015*		0.015	
			[0.008]		[0.039]	
Activist ownership × Growth actions				0.001		−0.063**
				[0.002]		[0.030]
Activist ownership			−0.066**	−0.074***	−0.676***	−0.594***
			[0.027]	[0.028]	[0.218]	[0.210]
Restructuring actions			−0.002***		−0.002	
			[0.000]		[0.002]	
Growth actions				0.000		−0.001
				[0.000]		[0.001]
Firm size	0.567***	0.127***	−0.006	−0.006	−0.657***	−0.657***
	[0.062]	[0.033]	[0.007]	[0.007]	[0.058]	[0.058]
Debt ratio	0.162	−0.357***	−0.133***	−0.134***	−0.462***	−0.461***
	[0.203]	[0.103]	[0.020]	[0.021]	[0.168]	[0.168]
Total diversification	0.218***	0.038	−0.004	−0.004	−0.003	−0.003
	[0.049]	[0.032]	[0.003]	[0.003]	[0.018]	[0.019]
Cash holding ratio	−0.612**	0.081	0.041***	0.042***	0.805***	0.809***
	[0.264]	[0.104]	[0.015]	[0.015]	[0.139]	[0.139]
Board independence	−0.296	0.426***	0.021*	0.020*	0.048	0.054
	[0.243]	[0.154]	[0.012]	[0.012]	[0.109]	[0.111]
Takeover contingency provisions	0.039	−0.013	0.002	0.002	0.018	0.017
	[0.036]	[0.020]	[0.002]	[0.002]	[0.016]	[0.016]
CEO duality	0.038	0.025	0.000	0.001	0.032*	0.032*
	[0.042]	[0.025]	[0.002]	[0.002]	[0.019]	[0.019]
CEO tenure	−0.006	0.003	0.000	0.000	0.001	0.001
	[0.004]	[0.002]	[0.000]	[0.000]	[0.002]	[0.002]
CEO equity ownership	2.012**	−0.081	−0.028	−0.031	−0.437	−0.453
	[1.018]	[0.661]	[0.038]	[0.038]	[0.307]	[0.308]
CEO option pay ratio	0.053	0.065	−0.009**	−0.010**	0.007	0.006
	[0.083]	[0.041]	[0.004]	[0.004]	[0.041]	[0.041]
Transactional institutional ownership	−0.436***	0.008	0.014*	0.014*	−0.280***	−0.276***
	[0.147]	[0.088]	[0.007]	[0.007]	[0.076]	[0.076]
Ownership concentration	2.218**	0.113	−0.233***	−0.242***	−3.095***	−3.046***
	[0.938]	[0.797]	[0.063]	[0.064]	[0.739]	[0.736]
ROE	−0.033	0.022				
	[0.031]	[0.020]				
Inverse Mills ratio	−0.167	−0.034	0.017***	0.016***	0.001	0.001
	[0.172]	[0.104]	[0.006]	[0.006]	[0.056]	[0.056]
Constant			0.102**	0.107**	6.932***	6.923***
			[0.050]	[0.050]	[0.473]	[0.472]
Observations	11,393	14,195	10,711	10,711	10,709	10,709
χ^2	534.8	998.4	882.8	870.9	1357	1344
Log-likelihood	−9765	−25310				

Note: Robust standard errors reported in brackets. Two-tailed tests:
* $p < .10$
** $p < .05$
*** $p < .01$

Tobin's q. In Model 5, the coefficient estimate for *Activist ownership × Restructuring actions* is not significant. In Model 6, the coefficient estimate for *Activist ownership × Growth actions* is negative and significant ($\beta = -0.063$, $p < .05$). These results offer support for the notion that restructuring actions and growth actions at firms with high levels of activist ownership may not improve firm performance, and

in fact could even harm performance and investor perceptions.

Other supplementary analyses. If restructuring is meant to create efficiency, then it seems reasonable to consider restructuring's effect on operational efficiency among firms with high activist ownership. To do so, we followed Demerjian, Lev, and McVay (2012) to generate a measure of firm-level operational efficiency. We calculated the residual of total firm efficiency after removing a number of firm-specific characteristics and then compared the residual score to the Pareto efficient frontier—the best performance that can be practically achieved. In unreported (due to space constraints) results, we found that the coefficient estimate for *Activist ownership* × *Restructuring actions* is not statistically significant. This implies that, when firms have high levels of activist ownership, the restructuring activities of Hypothesis 1 may not necessarily improve the firm's operational efficiency.

Second, the growth actions we investigated in our main analyses are consistent with those found in research on competitive dynamics, but they do not necessarily reflect the dollar cost of engaging in such actions. To consider this, we investigated the dollar value of strategic risk taking oriented toward growing the company as an alternative dependent variable. Consistent with prior research, we summated the dollar value of R&D, capital, and acquisition expenditures to create this alternative dependent variable (Shi, Connelly, Mackey, & Gupta, 2019; Zhu & Chen, 2015). In unreported results, we found that the coefficient estimate for *Activist ownership* is negative and statistically significant with strategic risk taking as the dependent variable ($\beta = -2.07$, $p < .01$), consistent with the prediction of Hypothesis 2.

Third, we considered the extent to which portfolio spillover of shareholder activism is a distinct phenomenon from market spillover of shareholder activism. To do so, we divided a non-targeted firm's activist ownership into two types: ownership by activists that have targeted the firm's industry peers and ownership by activists that have not targeted the firm's industry peers. We considered firms to be industry peers if they had the same four-digit SIC codes. Note that finer-grained industry distinctions constitute a more accurate comparison of peer groups and hence a more conservative test, as opposed to our first-stage probit analysis wherein we used one-digit SIC codes because finer-grained industry distinctions reduce statistical power. We then investigated the differential influences of competitor activist ownership and non-competitor activist ownership. In unreported results, we found that the coefficient estimates for non-competitor activist ownership are statistically significant in the hypothesized direction when used to predict restructuring actions and growth actions, and the coefficient estimates for competitor activist ownership are not significant. These findings illustrate the merit of investigating the portfolio spillover effect (rather than the market spillover effect) on non-targeted firms.

DISCUSSION

We proposed that, when an institutional investor targets one firm in its portfolio for activism, non-targeted firms will take action to try to inoculate themselves against becoming a target for activism. In support, our findings point to a portfolio spillover effect, wherein non-targeted firms are more likely to undertake corporate restructuring initiatives and dial back on growth activities when they have a high level of activist investor ownership. In addition, we theorized and found that the relationships between activist ownership and restructuring or growth are stronger when firms have weak constitutional constraints on shareholder control and when activist owners are accompanied by high levels of transactional ownership. Collectively, we believe these findings offer important implications for research and practice.

Implications for Research

We aspired to offer two main contributions. The first was to extend the scope of the AMC framework beyond its traditional application within competitive dynamics (Chen & Miller, 2012; Chen, Su, & Tsai, 2007) by applying it to a major external threat in the governance arena. We extended this theoretical lens to a new context, generalizing its principles beyond its historical boundary of competitive threats to threats from activist investors. In his renowned discussion of theory building, Whetten (1989: 494–495) contended that strong theoretical contributions usually address a "topic of contemporary interest to scholars" that is "linked to core management or organizational concepts or problems." We aimed to follow his guidance by leveraging one of the most prominent governance issues of our day, investor activism, as a means of taking a first step toward establishing AMC's ability to explain responses to a core managerial problem: responses to external threats.

This is potentially an important step forward, in part because understanding how executives deal with external threats is a "grand puzzle" that has long been of interest to organizational scholars in general. While perspectives such as threat rigidity (Staw, Sandelands, & Dutton, 1981), strategic issue interpretation (Jackson & Dutton, 1988), and organizational adaptation (Meyer, 1982) have fueled knowledge generation about this puzzle for decades, the AMC framework can shed new light by highlighting three key factors (i.e., awareness, motivation, and capability) that shape whether an implicit threat is met by a response. This is a departure from, for example, the threat-rigidity perspective, which is more useful for explaining firm actions when under attack from an active threat. In particular, our theory and data, and those offered within past competitive dynamics research, (a) suggest that the absence of any one of the three factors can lead to a threat going unchallenged and (b) describe the likely nature of responses, if responses are actually enacted. What remains unknown is the breadth of threats to which scholars might successfully apply the AMC framework. The threats posed by rivals and by portfolio spillover differ greatly along key dimensions (e.g., the former involves jockeying for customers and profits while the latter involves potential corporate control contests). We are optimistic, therefore, that the AMC framework might eventually take its place alongside threat rigidity and other perspectives as a broadly applicable theory for responses to external threats.

Our second contribution is building knowledge about firms facing implicit threats from activists; a phenomenon we label "portfolio spillover." Scholars and executives alike are extremely aware of, and concerned about, activism's direct influence on firms, in part because activist moves attract significant media attention. Using the AMC framework to examine investor activism shifts attention from a focus on headline-grabbing direct moves to the broader perspective of the threat of activism. This advances the literature on activism because the indirect effects of activist behavior remain relatively uncharted. Those effects are critically important, though, because academics and practitioners are working to assess the consequences and effectiveness of investor activism (Clifford, 2008; David et al., 2001), but there has been little consideration for the potentially wide-reaching externalities that investor activism carries with it.

Relatedly, finance scholars have shown that shareholder activism can improve firm performance and governance effectiveness (Brav et al., 2008), operational efficiency (Brav et al., 2015), and innovation efficiency (Brav et al., 2018). Our supplementary analyses illustrate that restructuring actions and growth actions undertaken by non-targeted firms in the presence of an implicit threat from activist investors can harm firm performance, thereby pointing to a potential negative externality of activism. Returning to our earlier analogy, just as traffic enforcement can have unintended and undesirable consequences, so too can the actions of activist investors. For example, sudden braking by a sizable number of drivers when observing the issuance of a traffic violation can lead to congestion and associated collisions. Similarly, top executives who observe activism at other firms could make changes that are collectively undesirable. For instance, some activism is aimed at making executive compensation more contingent on performance (Almazan, Hartzell, & Starks, 2005) but an increased emphasis on contingent pay is associated with financial misconduct (Harris & Bromiley, 2007). If a wide range of companies adopt higher levels of contingent pay (as they respond to activism at other firms), it could have the unintended consequence of increasing overall levels of financial misconduct.

Our work also adds to knowledge about ownership as a corporate governance mechanism. Prior research has studied what triggers shareholder activism (Rowley & Moldoveanu, 2003), outcomes of activism (Kochhar & David, 1996), and the types of firms that are targeted (Goranova, Abouk, et al., 2017), but we consider what happens when activist investors present no demands. This merits investigation because, as one analyst noted, just about every company is going to be owned by an activist investor at some point, but only a few of them will be targeted for activism (Ernst & Young, 2015). Our evidence suggests that the implicit threat of intervention can inspire change.

We also add to what is known about how different types of institutional investors might work together to affect firm outcomes. Findings reveal that the governance role of activist investors relies on not only how much the activist invests in the firm, but also on who else invests in the firm (Dharwadkar et al., 2008). Given that transactional investors have limited knowledge about firms in their portfolio, they may be inclined to follow the lead of activist investors (Connelly et al., 2019). This makes activist investors a more serious threat for executives, as we found in testing our third hypothesis. Research on shareholder activism has shown that multiple

activist investors can form a metaphorical wolf pack to launch collective activism (Lu, 2015), but this body of work has not yet examined in detail how activist investors coalesce with non-activist institutional investors to shape firms' strategic actions. Our study takes an important step toward that end.

Our findings also build knowledge about the merits of constitutional limits on shareholder control (Connelly, Shi, & Zyung, 2017). In our data, firms with weak (i.e., fewer) constitutional limit provisions felt the effects of portfolio spillover more strongly than did firms with strong (i.e., more) provisions. From the perspective of the AMC framework, putting more constitutional limit provisions in place reduces activist investors' capability to pose a credible threat to a firm and the firms' motivation to respond. A logical next issue for researchers to examine is the extent to which constitutional limit provisions can substitute for proactive change when executives wish to neutralize the threat of activism. If the extent of substitution is large, then enacting new provisions could be a preferable alternative to restructuring or dialing back on growth, particularly when restructuring and reducing growth would be poor long-term moves. Interestingly, this may become an issue of board fiduciary management with regard to the importance of constitutional constraints.

Lastly, our study sheds new light on research on managerial myopia and economic short-termism (Laverty, 1996). There are a variety of forces acting on executives to either pressure them to focus on short-term outcomes, such as stock buybacks, or free them up to pursue strategic long-term initiatives, even if those initiatives might harm short-term results. The prevailing wisdom is that activist investors fuel myopia by pressuring executives to prioritize near-term outcomes (George & Lorsch, 2014; Samuel, 2000). We add that the mere threat of activist investors could be enough to force executives into myopic responses. Future research might consider these outcomes in relation to other short-term oriented actions such as stock buybacks and issuing dividends. Do firms scaling back on size and scope use the freed-up extra cash to buy back stock or issue more dividends?

Implications for Practice

Corley and Gioia (2011: 22, italics in original) contended that "our theories should be *problem driven*—that is, in some fashion addressing a problem of direct, indirect, or long-linked relevance to practice." This is true of our work because practitioners are concerned about, and considering solutions to, the threat of activism. For example, to educate organizational leaders about the threat of activism, the National Association of Corporate Directors (2016) issued a report entitled "Director Essentials: Preparing the Board for Shareholder Activism" that highlights 10 high-profile activists, their strategies, and the companies they've targeted. The report offers detailed questions and resources that boards can incorporate into their agendas to help forestall an activist challenge. Likewise, the president of a governance consultancy advised that "CEOs who aren't already thinking about their companies as potential targets for activism should develop a healthy paranoia [and] proactive steps are required to avoid becoming the next unsuspecting target" (Duffy, 2015). Our study constitutes an initial foray into understanding this phenomenon from an academic perspective by mapping factors that are likely to contribute to firm responses.

Certainly, activist investors may be interested to know about the effects they have on actions within firms they have not targeted for activism, possibly without even being aware of the extent of their influence (Brav et al., 2010). Activist investors could leverage this far-reaching influence to their advantage. Activism is a costly endeavor, but we expect that, if an activist investor owned stakes in several firms with similar problems (e.g., high debt or overdiversified businesses), targeting just one could create pressure on all of them. Investigating which targeted firm will have the most portfolio spillover would be a worthy question for activist investors, given the cost of activism.

In addition to activist investors, other shareholders may find our results interesting as well (Nofsinger & Sias, 1999). Transactional investors who lack in-depth understanding of portfolio firms should be aware that they might receive a temporary bump in stock price when firms announce restructuring activities. However, their presence also reinforces firms' motivation to use restructuring as a defensive tactic. Executives might be able to mitigate the threat of becoming a target for activism by dissuading transactional investors from following activist investors.

Our findings also have some practical implications for stakeholders other than owners. As non-targeted firms increase restructuring actions and reduce growth actions to reduce the chance of becoming the next target of activism, these actions can harm firm performance. Board members of non-targeted firms

should be cognizant of this dynamic and be willing to play a fiduciary role in preventing it. In the face of a salient threat from activist investors, board members of non-targeted firms should ensure the firm is prepared for activist endeavors and provide support for top executives so that they will not overly emphasize restructuring or scaling back from growth as a preemptive move. Beyond the board, value-destroying actions undertaken by non-targeted firms to fend off activist investors can potentially increase a firm's default risk, which would be detrimental to the interests of bondholders. Thus, bondholders may wish to closely monitor the risk level of firms that are heavily held by activist investors but are not directly targeted by activist investors.

For policy-makers, our results highlight the multidimensional influence of activist investors (i.e., direct and indirect). As U.S. Securities and Exchange Commission and stock exchange (e.g., NYSE, NASDAQ) rules have become more shareholder friendly, these regulatory bodies have perhaps unwittingly conveyed immense power to activist investors (Engelen, Konings, & Fernandez, 2008). Our study suggests that the consequences of shareholder empowerment policies should not be measured simply by examining the obvious effect of activist campaigns, but also by their more subtle spillover effects.

Limitations and Future Research

Our study has limitations of note; each presents opportunities for further inquiry. One of the most foundational limitations is that we did not directly measure the extent to which executives feel threatened by activist investors. We noted that activist investors have a rich and established history of restricting managerial control, reducing compensation, and even firing executives, suggesting there is reason for concern (Karpoff, 2001). Relatedly, owing to the archival nature of our data, we were unable to directly capture how constitutional constraints or transactional ownership can affect the capability of activist investors to act and the motivation of firms to respond. Future research, therefore, would be useful to investigate the process in more depth and with greater nuance through primary data methods such as participant observation and interviews. Studies might also investigate the spillover effect of corporate investors (e.g., Amazon), especially those of new entrants. For example, when Amazon acquired Whole Foods, this triggered substantial changes in the grocery industry. It would be interesting to investigate how incumbent firms react to the disruption caused by new corporate entrants and how corporate owners differ from institutional investors.

There is an opportunity to investigate other contingencies beyond the moderating effects of constitutional limit provisions and transactional ownership that we examined. Exploring CEO characteristics might be another fruitful path. For instance, given that CEOs high in prevention focus (i.e., a predisposition toward responsibility and safety) devote greater attention to preventing negative outcomes (Johnson, Smith, Wallace, Hill, & Baron, 2015), such as being a target for activism, these CEOs may exhibit stronger propensities for defensive restructuring and reducing growth initiatives than others. Lastly, 43% of investment by activist investors in our sample was concentrated among S&P 1500 firms. Our focus on large firms (those in the S&P 1500) could limit our findings' generalizability. Future research could investigate broader samples to establish potential boundary conditions for our findings.

CONCLUSION

We sought to build knowledge about a group of institutional investors—activists—whose influence has grown substantially in recent years. We found evidence these investors have indirect effects on executives' actions, in addition to the direct effects that researchers usually examine. Looking to the future, it seems likely that activist investors will continue to play a key role within the corporate governance landscape, and their influence appears to be growing. If so, the concept of portfolio spillover and the AMC framework may become increasingly important tools for understanding how executives cope with the threat posed by this important set of shareholders.

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